The Quest to Shape Health Policy Through Nursing Research
Lessons from Legends:
Power, Policy and Practice
KUMC School of Nursing
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Quest is Three Fold:
- Professional quest to guide nursing practice and shape health policy through nursing research.
- Pioneering quest of senior nurse scientists to build research programs that would advance nursing practice and influence health policy.
- Personal scholarly quest to explore and analyze how nursing research is shaping health policy at this historical juncture of over 25 years of funding through the National Institute of Nursing Research (NINR).

Personal Scholarly Quest:
  - Interviewed 15 well-known, recognized health policy influencers who are leaders of organizations with health policy agendas.
  - Interviewed 23 senior nurse scientists.
- Co-authored text with Dr. Patricia Grady: Shaping Health Policy Through Nursing Research (2011).

Ultimate Purpose of the Quest:
- To advance and shape health policy through a deliberative use of nursing research interactive with the processes, strategies and events that influence policy.

Multiple Definitions of Health Policy:
- Policies are defined as statements (documents) that reflect the “standing decisions” of an organization re. a given problem, issue or situation (Milstead, 2004)
- Health policy is influenced by many factors; e.g., constituents’ opinions, policy makers’ beliefs and values and politics (Mason, Leavitt & Chaffee, 2012).
- Health policies are evident at the organizational (hospital), community, state, national and international levels.

To Examine:
- How research guides organizational policies for patient care and health systems for hospitals and for community agencies?
- How research influences state, national and international health policy; specifically illustrating how nursing research has shaped such policy?

To Examine:
- Three Different Models for Shaping Health Policy at the Patient Care and Health System Level:
  - Use of Evidence Based (EB) Concepts and Processes to Develop EB Health Policies.
  - Abstract Substantiated Findings from Research Programs for Developing Policies.
  - Transfer Information from National Policy Reports for Policies in Hospitals and Communities.
Model I: Evidence Based Patient Care and Health System Policy

- The translation of the evidence-based practice concepts and processes to evidence-based health policy within organizations; hospitals and community agencies.  
  (Melynk & Williamson, 2011)

Excitement of Evidence Based Practice (EBP) Movement

- Nursing practice and research have become strongly linked. 
- EBP is both an individual professional and organizational endeavor. 
- With EBP, patient outcomes are improved and positive work environments are developed. 
- EBP in positive work environments may decrease nurse “burnout” and thus, increase retention.  
  (Titler, Cullen & Ardery, 2002)


Progress in Achieving EBP

- In 1993, one major study suggested only 21% of the practicing nurses were using research in their daily endeavors. (Bostrom and Suter) 
- Balas & Boren’s findings (2000) showed that it takes about 17 years for research to be utilized. 
- However, in 2001, Cretin and colleagues, found that two-thirds of health providers were following established EBP guidelines. 
  (Cretin, Farly, Dolter & Nicholas)

Basic Understanding of EBP

- EBP is an integration of the professional's endeavors and the organizational support and infrastructure. 
- Multiple definitions of EBP have evolved over time. 
- Carper’s classic article (1978) established that there are multiple ways of knowing that support nursing practice.

Common Components of EBP

- “EBP is the conscientious use of current best evidence in making decisions about patient care”. 
  (Sackett, Straus, Richardson, Rosenberg & Hayes, 2000) 
- Generally, EBP involves multiple components: 
  - The strongest research and/or expert opinion. 
  - Clinical experience and tailoring. 
  - Patient values and preferences.


Common Steps for EBP

- There are several common steps cited for EBP:
- Posing the important, critical clinical questions.
- Searching for and collecting the best evidence.
- Critically evaluating the evidence and the amount and levels of the information amassed.
- Blending the various types of evidence, experience and patient preferences and desires.
- Tailoring/implementing the evidence and evaluating for predicted or desired outcomes.
  
  (Brown, 2009, Melnyk & Fineout-Overholt, 2011)

**Note:**
- The multi-step EBP process may be used for one or several nurses responding to an individual patient/family problem.
  
  OR
- The multi-step EBP process may be focused on developing patient care policies responding to recurring patient/family problems.
  
  OR
- The multi-step EBP process may be focused on developing patient care or health system policies responding to statistical data.

**Step 1:**

**Posing Critical Clinical Questions**

- A clinical problem may result in several important questions—if this occurs, then the same information is needed for each one.
- Because forming the evidence based under a clinical question is resource, time and energy expensive—be sure the question(s) posed are high priority.
- Several sets of criteria are available for forming the clinical questions.

**Criteria for Information to Include in Critical Clinical Questions:**

**PICO Criteria**

- Patient Population
- Interest Area or Intervention
- Comparison intervention or status
- Outcomes: Desired and/or Predicted
  
  (Melnyk & Fineout-Overholt; 2005)

**PITOR Frame**

- Population of Interest
- Intervention(s) of Concern
- Timing of Actions
- Outcomes of Interest
- Responsibility or Accountability
  
  (Brown, 2009)

**Step 2:**

**Searching/Collecting Best Evidence**

- Searching begins with systematic reviews or meta-analyses and evidence-based clinical practice guidelines.
There are multiple types of evidence for building such reviews and guidelines. Disciplines differ on what constitutes “best evidence.” Example: Cochrane Database and Randomized Clinical Trials. 

(Guyatt and Rennie, 2002)

20 Nursing’s Approach to Best Evidence

- Nursing values both qualitative and quantitative research results. 
- EBP, for nursing as well as for other health professionals, draws on science generated in numerous fields from social, health and basic disciplines. 
- Many nursing clinical questions are not amenable to RCTs.

21 System for Ranking Levels of “Best Evidence”

- I. Evidence from systematic review or meta-analysis of relevant RCTs or Clinical Practice Guidelines. 
- II. Evidence from one well-designed RCT. 
- III. Evidence from well-designed controlled trials without randomization. 
- IV. Evidence from well-designed control and cohort studies. 

22 System for Ranking Levels of “Best Evidence (cont)"

- V. Evidence from systematic reviews of descriptive and qualitative studies. 
- VI. Evidence from a single descriptive or qualitative study. 
- VII. Evidence from the opinion of authorities and/or reports of experts. 

(Melnyk and Fineout-Overholt, 2011)

23 Example: Computer Databases for Search

- Multiple databases exist for use in identifying “Best Evidence”: 
  - Cochrane Center and Collaboration  
    http://www.cochrane.org/cochrane/cc.broch.htm#cc. 
  - Worldviews on Evidence-Based Nursing (STTI)  www.nursingsociety.org 
  - Agency for Healthcare Research and Quality  www.guideline.gov 
  - Registered Nurses Association of Ontario  www.rnao.org 
  - Joanna Briggs Institute  www.JoannaBriggsInstitute.org

24 Step 3: “Critical Appraisal” of Best Evidence

- There are several approaches to the critical appraisal process for best evidence. 
- When possible, utilize evidence that has been appraised by experts, such as with existing clinical guidelines or use published research from referred journals. 
- Most of the “critical appraisal literature focuses more on the research to practice link. 

25 Approaches to Critical Appraisal

- Template for Appraising Research Evidence 
- Synopsis 
- Credibility 
- Clinical Significance 
- Applicability
- Expected Outcomes

Questions for Critical Appraisal

- What were the results of the study?
- Are the results valid?
- Will the results help patient care?

(Melnyk & Fineout-Overholt, 2005)

Step 4: Integrating the Evidence in EBP and EB Policy

Integrating the evidence is a crucial step in implementing EBP and in shaping policy. This step requires the clinician to tailor the evidence to the “greater good” and the patient populations’ preferences and values. This step entails problem-solving creativity, clinical expertise, ethical considerations and cultural competence. Key is a clear, concise identification of the clinical policy being developed and the outcomes.

Step 5: Evaluating the Outcomes of EBP

This step requires a systematic evaluation plan for determining whether the predicted (measureable) outcomes were achieved for the population of patients/families. For EB health policy the outcomes may focus on unit level patient care policies for multiple patients/families—more focused on a unit problem OR focus on a health system issue such as unit safety data.

Organizational Culture for EB Practice and Policy

Implementing and sustaining EB processes for nursing practice and health policy requires an organizational culture for supporting such a professional, interdisciplinary research approach.

Organizational Facilitators for EBP

Stetler’s Organizational Model for EBP (2003) identifies several of the factors involved in context and facilitation.
- Leadership Support for an EBP Culture
- Capacity to Engage in EBP
- Infrastructure to Support and Maintain an EBP Culture

Leadership Support for an EBP Culture

Leaders in an organization set the expectations for norms and behaviors, motive members for a vision for quality professional care and a strong, positive work environment. (Haven, 2001)

The importance of visionary leadership has been evident for magnet hospitals and for transforming work environments for positive patient outcomes. (IOM, 2004)

Capacity to Engage in EB Policy

Access to evidence, both organizational and research applicable to the clinical policy. Defined research utilization process for how to use findings to change practice or
organizational policy; e.g., Process for Developing Clinical Policies/Protocols.
- System supports; e.g., time to amass information or forming of EB policy teams.
- Education in the knowledge and skills required for EB practice/policy processes.
  (Stetler, 2003; Titler & Everett, 2006)

### Infrastructure to Support EB Policy
- Major organizational resource: Information systems that are user-friendly and provide access to National/International Databases for tracking and acquiring “best evidence”.
- Nursing members on organizational committees for monitoring development/use of clinical policies and guidelines.
  (Titler & Everett, 2006, Melnyk, Fineout-Overholt & Mays, 2008)

### An Example of EB Nursing Policies
- Midwest Hospital used EBP processes to revise 32 patient care policies for the organization.
  - Followed the Steps of the EBP process.
  - Had the policies evaluated and confirmed by a policy monitoring committee.
  - Determined on a three year evaluation and revision process.
  (Melynk & Williamson, 2011)

### Model II: Sustained Nursing Research Programs
- Organizational policies can be developed given the findings of sustained nursing research programs.
- Several examples will be examined of research programs of nurse scientists that have influenced health policy for hospitals and community agencies.

### Example of Shaping Health Policy for Hospitals through Nursing Research
- Proper Placement of a Gastric Tube: pH as an Indicator: Norma Methney
  - Purpose:
    - To assess the proper placement of feeding tubes by measuring the pH of secretions.
  - Results:
    - 70% gastric secretions = pH of 0 to 5
    - 99% respiratory secretions = pH of 7+
    - Recommend: Test for pH of 0 to 4.

### National and Organizational Health Policy Influence
- Recommended pH test adopted as new standard:
  - In practice policies in health care agencies.
  - In clinical textbooks for nursing and medicine.

### Example of Shaping Health Policy: Community Agencies
- Chicago Parenting Program (CPP) developed to promote positive parenting knowledge & skills with low income families (Gross & Crowley, 2011).
- Designed to educate parents as a complement to early preschool programs.
- Several studies testing effect of CPP on parenting and child behavior.
- Outcomes successful: fewer child behavior problems, greater positive parenting skills and greater parent satisfaction.

### Health Policy Implications
- Chicago Commissioner of Department of Children and Youth Services contacted authors.
Interested in using parenting program city wide with Head Start.

Authors evaluated implementation of CPP in numerous sites. Successful outcomes were replicated at a reasonable cost.

City of Chicago invested in program, formed an advisory board for expansion—CPP now city-wide.

Models for Shaping Health Policy Through Nursing Research

Considered two models for using nursing research to influence organizational policy:
- Use of EBP model for EB health policy.
- Using known nursing research programs to develop organizational policies.
A third model is deliberately transferring information from national policy reports for patient care and health system policies in hospitals or community agencies.

Model III: Institute of Medicine Report

Keeping Patients Safe: Transforming the Nurses’ Work Environment (IOM, 2004)

First major national policy report linking the work environment of nurses’ to nursing outcomes and patient safety based on research.

Keeping Patients Safe:
Builds on two prior IOM Reports:
To Err is Human and Crossing the Quality Chasm

- More deeply addresses certain patient safety issues; e.g., organizational cultures of safety.
- Addresses new issues; e.g., staffing and work hours / fatigue.
- Unifies all three reports into a framework for health care organizations and safety.

Committee on the Work Environment for Nurses/ Patient Safety: Charge

Identify key aspects of the work environment of nurses that likely impact patient safety.

Identify potential improvements in health care working conditions that would likely increase patient safety.

Health Care Organization Blueprint

Management Practices
- Leadership
- Evidence-based Mngt: trust, manage change, involve workers, learning organization, and balance efficiency and reliability

Workforce Capability
- Safe staffing levels
- Knowledge and skill acquisition
- Interdisciplinary collaboration
Organizational Culture
- Culture of safety

Work Processes
- Fatigue and work hours
- Reduce inefficiencies and unsafe practices

**HCO Blueprint**

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Organizational Culture
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Work and Workspace Design
- Fatigue and work hours
- Reduce inefficient and unsafe practices

**Recommendation:**
HCOs should acquire nurse leaders for all management levels (e.g., organization-wide and patient care unit levels) who will:

- Participate in executive decisions, represent nursing staff to management, facilitate trust and are visionary.
- Achieve effective communication between nursing and other professional leadership.
- Facilitate input of direct-care nursing staff into operational decision making and the design of work.

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48 **Research on Nurse Staffing and Patient Outcomes in Hospitals**
- Over 80 studies support relationship of adequate nurse staffing and patient outcomes (IOM, 2004).
- Inadequate nurse staffing leads to higher patient mortality, nurse burnout and job dissatisfaction (Aiken, Clark, Sloane, Sockalski and Silber, 2002).

49 **Recommended Staffing Practices:**
- Hospitals perform ongoing evaluation of their nurse staffing practices and increase oversight if judged below quality standards; e.g., 1 RN to 2 Patients in ICUs.
- Empower nursing unit staff to regulate unit work flow and set criteria for unit closures to new admissions and transfers as nursing workload and staffing necessitate.

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51 **Dangers of Long Work Hours:**
- 12 hour+ shifts with limited rests: “sustained operations”
- Error rates in nurses increased after 12 hours of work
- Fatigue decreases reaction time, attention to detail, motivation, and problem-solving ability

52 **Recommendation:**
States should prohibit nursing staff from providing patient care in excess of 12 hours per day and 60 hours per 7-day period.
HCOs and labor organizations should establish policies to prevent nurses from working longer than these hours.

Schools of nursing, state boards of nursing, and HCOs should educate nurses about the threats to patient safety caused by fatigue.

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**Many Changes Evident:**

- Joint Commission questions re. nurse staffing, patient acuity and nurse work hours.
- Transforming Care at the Bedside Initiative by Institute for Healthcare Improvement and Robert Work Johnson Foundation.
- AHRQ Center for Patient Safety Research.
- Data on nurse staffing and work hours part of national data bases for hospital use and comparison.

**Conclusions:**

- Building positive work environments retains nurses and impacts patient safety.

**Examined:**

- Shaping patient care and health system policies at the organizational level of hospitals and communities through three models or approaches.
- Focused on use of well-known EBP processes for also building EB policies.
- Considered the organizational infrastructures needed to access evidence or research for use in developing health policy.