Clinical Practice and Research – Do They Mix?

Sharon Y Irving, PhD, RN, CRNP, FCCM
Assistant Professor, Pediatric Nursing
University of Pennsylvania, School of Nursing
Nurse Practitioner, Division of Anesthesiology and Critical Care Medicine; Critical Care Nursing
The Children’s Hospital of Philadelphia
Objectives

- Discuss the benefits and challenges of nursing involvement in clinical research
- Develop questions pertaining to the clinical research process
- Identify avenues to become involved in clinical research
Clinical Research

Strong Nursing

“Evidence drives our decision-making in everything we do and every day we do it."

Gail Inversoll, EdD, RN, EAAN, FNAP

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Clinical Research

- Inquiry designed to generate knowledge in issues of importance to patient care and/or nursing as a discipline
Why participate in CLINICAL RESEARCH?

“...advancement of the substantive base of practice...”

Synder 1995

Participation in research is often of lowest priority
- Lack of administrative support
- Lack of peer support
- Lack of knowledge
- Time constraints
- Demands of patient care
- Responsibility
- Funding → who is paying for this???

Lacko, L. 2000
Why Participate?

- Foster awareness of the importance of the project
- Facilitate understanding of the research process
- Develop unit-based projects
- Assess areas of staff interest
- Participate in the decision-making of policy, procedures, equipment procurement
- Showcase the impact of the project

You have questions – participate in getting the answers!
Why Participate?

- Key collaborators in development, design and implementation
- Identify real or presumed limitations associated with the clinical environment
- Identify real or presumed ‘burden’ of the protocol
- Ensure high quality care for participants
- IRB
- Ethical Issues
Who Better???

NURSING REQUIREMENTS (to): have the memory of an elephant, an Angel's patience, a heart the size of the Sun, eyes on the back of your head, a nasal filter, 8 arms like an octopus, resistant legs, a back strong enough to hold and transfer full grown adults, a 5 litre bladder and a impenetrable immune system! Even so, they say this is an easy profession. Copy this to your wall if you are proud to be a Nurse ♥

NURSES ROCK
Why Not?

- Knowledge of disease processes, medication side effects
- Frequent nursing assessments
- Clinical practice skills
- Always learning
- Mobile
- Organization skills
- Team collaboration
- Data collection and organization
- Use of nursing skills, assessment and knowledge

Stealth Investigator

Obtain information / data
Use language that expresses ‘value’ to patient’s and families
Follow-Up and Follow-Through
We Have Skills

Nurses can diagnose DKA, C.Diff and a GI bleed with their noses before entering a patient's room. (Not all our superpowers are glamorous.)

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Clinical Research
Nursing Influence

Early enteral feeding in the pediatric intensive care unit.
Chellis MJ, Sanders SV, Webster H, Dean JM, Jackson D.

Early enteral feeding in the pediatric intensive care unit.
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Resting energy expenditure at 3 months of age following neonatal surgery for congenital heart disease.
Irving SY, Medoff-Cooper B, Stouffer NO, Schall JI, Ravishankar C, Compher CW, Marino BS, Stallings VA.

The effect of continuity in nursing care on patient outcomes in the pediatric intensive care unit.
Siow E, Wypij D, Berry P, Hickey P, Curley MA.

Nursing Influence


Early enteral feeding in the pediatric intensive care unit.
Chellis MJ, Sanders SV, Webster H, Dean JM, Jackson D.


Nurse-led implementation of a safe and effective intravenous insulin protocol in a medical intensive care unit.
Khalaila R, Libersky E, Catz D, Pomerantsev E, Bayya A, Linton DM, Sviri S.


Paediatric intensive care nurses' and doctors' perceptions on nurse-led protocol-directed ventilation weaning and extubation.
Tume LN, Scally A, Carter B.


The effect of continuity in nursing care on patient outcomes in the pediatric intensive care unit.
Siow E, Wypij D, Berry P, Hickey P, Curley MA.
“Researchers have got to learn that they are dealing with human beings NOT ‘subjects’ if they expect to do good research.”

Mrs. Byrd, a community member

- As Nurses we know TRUST is key to attaining and establishing relationships
- TRUST is paramount in clinical research
I wear bodily fluids that aren't mine, I work weekends & holidays, I get screamed at & have my hands in other peoples orifices. Tell me again how hard you work?

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Clinical Research
Barriers to Participation

- Roxburgh, 2006
  Focus groups and single person interviews
  \( N = 35 \)
  - Generally receptive to clinical research participation
  - Restrained:
    - time
    - lack of peer support
    - decreased knowledge and skills related to the research
Barriers to Participation

- Lume, 2013
  Cross-sectional electronic survey
  $N = 36$ (90% nursing response rate)
  - Generally positive response to the protocol
  - Inappropriate patient for the protocol
  - High clinical workload
  - Lack of support (medical staff, APNs, peer staff)
  - Restrictive nature of the protocol
Pediatric Nurses Perceptions of the Impact of Clinical Research Protocols on the Deliver of Nursing Care in the Intensive Care Unit

Method:
- In-person, semi-structured interviews
- Pre-set interview script

Sample:
- 20 ICU nurse volunteers
Design:
  - Qualitative, descriptive study

Nursing Staff (N=17)
  - PICU / CICU
  - Average 5 years practice

Themes
  - Time Constraints
  - Increase in number of ‘tasks’ to do for the study which takes away from patient care
  - Often involves increased amount of lab work
  - Nursing staff was not educated on the various protocols
  - Responsibility
Perceptions

- Physicians (PIs) felt it was the nurses ‘job’ to participate
- The protocols did not account for ‘nursing tasks’
- Nurses were not included in the design many expressed resentment
Outcomes

- Nurse participation in every protocol (PICU) from design
- Central binder with a 1 – 2 page description of active protocols and nursing responsibility
- Multiple signs around the units with information on the protocol; who and how to contact with questions
- Intermittent updates and debriefing with nursing staff on study progress, enrollment, data collection, outcomes
- Increasing nurse involvement in dissemination of results
- Support for nurses to become PIs
IOM Report on the Future of Nursing

- Our current healthcare system needs to be transformed to meet patient needs of 21st century
- Nurses are uniquely positioned to fulfill this role
- We will need to redefine our profession to reach this goal

http://books.nap.edu/openbook.php?record_id=12956
'Through the Initiative, RWJF continues to support the research agenda set forth by the report (IOM) and implement the recommendations in the areas of nurse training, education, professional leadership, and workforce policy.'
What, When, How Do We Feed These Patients???
Nursing Practice

Components of the Role

Clinical Practice

Policy

Scholarship

Teaching

Research
Clinical Practice

- Nurse Directed Clinical Research
- Methodology
- Evaluation
- Research Question
- Dissemination
Clinical Question

What is the number of NG tubes in place on a given day in hospitalized pediatric patients?

Answer:
Design and execute a study to assess the number and determine how tube location is verified.
Many nurses have placed NGTs
Is there ever a doubt as to tube location?

Clinical Project
NOVEL Project
(New Opportunities for Verification of Enteral tube Location)
Determine effective, practical, best practices related to placement and verification of NG/OG tubes
Development of new knowledge
Dissemination of the knowledge across disciplines to improve clinical practice
Clinical Practice → Clinical Research

- Multi-site prevalence study to determine number of enteral tubes in hospitalized children on a given day
  - How many tubes are there
  - What type of tubes (NG/OG/Transpyloric)
  - What methods are used to verify placement

- Preliminary Results
  - 60+ sites
  - >8000 data points
  - 65% NGTs / 21% OGTs / 13% Transpyloric
  - 23% use auscultation as primary method of verification
Clinical Interest → Clinical Research

Nutrition Support during Critical Illness in Infants and Children

- Question(s):
  - How do we approach initiation and advancement of enteral feedings in critically ill children
  - How long (days) are patients NPO following PICU admission
  - How / Does this effect PICU course, LOS and patient outcomes

- The challenge
  - Recognized data extraction is a challenge
  - Develop a systematic way to extract the data while developing a method to assess and address NPO status
“NINR’s Strategic Plan seeks to harness the strengths of nursing science to power an ambitious research agenda that will meet current and future health care needs and anticipate future health challenges and priorities.”

http://www.ninr.nih.gov/aboutninr/ninr-mission-and-strategic-plan#.VFBWW0uRe0u
Research Agenda

- Culture of Inquiry
  - A culture of inquiry fosters critical care nursing research driven by patient needs. A culture of inquiry will exist when:
    - Nurses move away from rituals in practice.
    - Nurses questioning their practice is not only accepted, but expected.
    - Change is the norm.
    - Practice reflects ongoing evaluation.
  - Nurses seek answers to their questions and articulate and teach the rationale for their practices to others.

http://www.aacn.org/wd/practice/content/research/research-mission-and-vision.pcms?menu=practice
Agency for Healthcare Research and Quality (AHRQ)

AHRQ’s mission is to improve the quality, safety, efficiency, and effectiveness of health care for all Americans. An agency within the Department of Health and Human Services, AHRQ supports research that improves the quality of health care services.

http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/PatientSafetyQuality/Quality-Organizations/AHRQ.html
“Nurse researchers bring a holistic perspective to studying individuals, families, and communities involving a biobehavioral, interdisciplinary, and translational approach to science. The priorities for nursing research reflect nursing's commitment to the promotion of health and healthy lifestyles, the advancement of quality and excellence in health care, and the critical importance of basing professional nursing practice on research.”

Collaborate

- Interdisciplinary clinical research team
- Learn from colleagues who learn from you
- Each discipline brings their area of expertise to the table
Resources

Don’t take on the world

- Check internally (e.g. Hospital, Nursing division, Hospital foundation)
- Explore membership organizations
- Explore disease specific organizations (e.g. Crohns & Colitis Foundation)
- Explore foundations (e.g. Gerber Foundation)
- Federal Grants
- Industry Support
And Now...

What ideas do you have for clinical research projects?

What will it take to get your ideas from thoughts to a clinical project?

Who will you collaborate with?
Points to Consider:

- Everyone has the potential to be involved with clinical research.
- The process of clinical research is rigorous and intentioned to identify and address questions and generate knowledge that affect clinical care and/or nursing as a discipline.
- It is a ‘team sport’.
- Often low priority for nurses → how do we raise the priority bar?
- Collaborate and GO FOR IT.
“To do what nobody else will do, a way that nobody else can do, in spite of all we go through; that is to be a nurse.”

– Rawsi Williams
THANK YOU!

- Thanks to the LHVHN Research Planning Committee
- University of Pennsylvania
- The Children’s Hospital of Philadelphia
- All the children and families I continually learn from
- All of you for your time