Engaging Bedside Staff in Research

It Starts With A Clinical Question

Marianne Chulay, RN, PhD, FAAN
Southern Pines, NC
chulay@aol.com

Accuracy of Temporal Artery Thermometry in NICU Infants

Exempla Lutheran Medical Center, Wheat Ridge, CO

Clustering Night Time Nursing Activities

- Vital signs
- Routine assessments
- Equipment checks
- Medications
- Weights
- Labs

St. Luke's Hospital, Kansas City, MO
Patient and Family Member Needs During the Perioperative Period

- Surveys of patients and family member needs during immediate preoperative, intraoperative, and PACU time period.

Exempla Lutheran Medical Center, Wheat Ridge, CO

Comparison of Different Methods to Support Second Stage Labor

Random Assignment At 10 cm Dilation

- Active Fetal Descent
- Passive Fetal Descent

Rex Hospital, Raleigh, NC

Early Ambulation After Arterial Sheath Removal

- 4 versus 8 hours of bed rest following arterial sheath removal
- Dependent variables: hematoma formation, rebleeding at site, patient comfort

Moses Cone Health System, Greensboro, NC
ECG Electrode Study

- Comparison of different methods for preparing skin at EGG electrode sites.
- Replication study in patients with an MI under typical clinical conditions.

Clinical Center, NIH, Bethesda, MD

Barriers for Clinicians Conducting Research

- No organizational resources to support staff
- Frustrations with trying to move the project forward
- Research has no relevance/interest for staff
- Staff have no time to do research
This isn’t going to work!

Strategies To Facilitate Research by Clinicians

Avoiding the “R” Word
Come and participate in clinical investigations.

Open to all staff.
Find a clinical problem, investigate it.
And help solve a mystery or two.

Thursday July 8th:
6:30 AM, 2:30 PM and 7PM
On the Oncology Unit – Katie Simmons, RN, MSN, CNS

Traditional Methods

Reading Research Articles

Teach Research Classes

Journal Clubs
Engaging Clinicians in Research

• Be proactive in forming research teams and helping them identify an appropriate research topic – do not wait for them to come forward with a project idea
• Empower teams to select their research topic based on their interests, not organizational interests

Engaging Clinicians in Research

• Meetings should be fun and recognize the challenges of attendance by bedside care givers
Team Research Projects

versus

Individual Projects

Assign a Research Mentor to Facilitate and Guide the Research Team
Role of the Research Mentor

- Facilitates all team meetings
- Teaches team members about research process
- Develops staff expertise in writing, presentations, etc
- Helps the team avoid or detour around roadblocks

Use a Process for Identifying, Evaluating, and Prioritizing Good Research Questions for Clinicians

Traditional Methods

Nursing Research Priorities

Reading Research Articles

Teach Research Classes

Journal Clubs
Brainstorm session with unit staff to identify high volume/every day patient care activities and situations
Identification of High Volume Patient Care Situations

- Diagnoses / co-morbidities / age
- Patient needs / problems
- Symptoms
- Important patient outcomes
- Nursing interventions
- Technologies

Brainstorm Clinical Questions

Narrowing the List – Vote Questions Off the "Island"
List of Questions

- Question #1
- Question #2
- Question #3
- Question #4
- Questions #5

Each participant gets a number of “votes” to narrow down the list. 

\[ \text{votes} = \frac{2}{3} \times \text{total number of questions on the list} \]

### Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Topic #1</th>
<th>Topic #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff interest</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Staff have clinical expertise</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Important to clinical practice, patient outcomes</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Large number of patients eligible</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>No political landmines</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Potential financial impact</td>
<td>2</td>
<td></td>
</tr>
</tbody>
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Scale 0 to 5, with 5 being criteria present, 0 being not present.

Large Number of Patients on Unit / Practice Area Eligible
No Additional Funds Necessary

Data Collection Fits Unit Routines and Takes < 15 Minutes
Finding Questions
1) Identify common patient problems
2) Identify common equipment
3) Identify clinical questions about
4) Narrow list
5) Pick final question

Writing the Protocol
1) Title page
2) Purpose statement
3) Design statement
4) Subjects for study
5) Procedure
6) Data analysis
7) Hazards / precautions
8) Appendices

IRB Approval
1) Complete educational compliance
2) Final protocol edits
3) Complete IRB application
4) Informal meeting with IRB coordinator
5) Submit

Use a Step-by-Step Process for Project Completion

Break Research Process Into Bite-Sized Pieces
Celebrate Project Milestones

Munroe Regional Medical Center, Ocala, FL

Increase Research Studies of Relevance to Clinical Practice
Outcomes From Clinician Driven Research Projects

- Empowers clinicians to “own” their nursing practice
- Staff recognition and institutional visibility from presentations at national/local professional meetings & publications
- Increased commitment to EBP
- Practice changes made based on study findings

Outcomes From Clinician Driven Research Projects

- Staff development in area of clinical focus, written communication, and presentations
- Achievement of Magnet standards related to conduct of research
- Increased organizational visibility
- Improvements in recruitment and retention?

Outcomes from Conducting Clinical Research

Staff Contributions Recognized!!
As you know, last year in September we presented the pioneer research studies at nursing grand rounds. We did so again this year but many of us are much more polished and some of us have presented in extra-hospital forums. I for one spoke about my study at the NCONL conference in Greensboro last August. Not half bad for a staff nurse - speaking to nursing executives about nursing research at the bedside! I have to say I was honored at the very least and I was truly well received.
Testimonials From Steven

Email after receipt of peer review comments from Journal of Infusion Nursing

“I am on cloud nine right now. I expected revisions but I really anticipated them being more critical than they actually were. I thought reviewer #3 was actually complimentary, at least I took it that way. I don’t know how your other prodigies have enjoyed this process but I can say I have finally self actualized my professional life. It cannot get any better than this!”

Testimonials From Steven

Email after receipt of page proofs prior to article publication in JIN

“Way Cool!!”

“Thank you for introducing me to another way to experience nursing.”
Comparison of manual BP and automated BP

Comparison of HR from automated device and continuous cardiac monitor

All patients had irregular rhythms

Multiple staff took BP

Portland Providence Medical Center, Portland, OR
Comparison of Methods to Stimulate GI Function After Abdominal Surgery

- Random assignment into 1 of 3 postoperative groups:
  - Chew gum for 30 minutes 3X/day
  - Suck on hard candy until dissolved 3X/day
  - Control group – no gum or candy
- Dependent variables:
  - Time to first flatus and BM
  - Time to tolerance of oral fluids
  - Time to hospital discharge

Portland Providence Medical Center, Portland, OR

Comparison of Different Methods for Decreasing Pain During IV Cannulation

Randomization

Group 1 (N=21) Placebo Spray
Group 2 (N=21) Active Spray
Group 3 (N=21) Placebo Wheal
Group 4 (N=21) Lidocaine Wheal
Group 5 (N=21) Placebo

Rex Healthcare, Raleigh, NC

Walking versus Rest For a 1 Hour Labor Check

- Dependent variables - change in cervical dilatation and time to delivery within next 24 hours

St. Luke's Hospital, Kansas City, MO
Use of Oral Sucrose to Decrease Pain During Painful Procedures in Infants 30 to 36 Weeks Gestation

- Comparison of comfort care (swaddling; holding an oral pacifier in place) versus usual care + placement of a sugar solution on the pacifier
- Pain score, heart rate, and oxygen saturation before and after an arterial puncture.

Saint Luke's Hospital, Kansas City, MO

Effect of PACU Visitation on Anxiety of Family Members

- Prior studies evaluated patient anxiety
- Few RCT

Exempla Lutheran Medical Center, Wheat Ridge, CO

Closing Thoughts . . .