Developing a clinical question with Nursing Clinicians in Cardiology

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Evidence based practice: “the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients”

Clinical evidence from systematic research

Best evidence to answer clinical question

EBP steps involve asking focused questions

First step is asking an answerable question

Good research questions

**Characteristics**
- Feasible
- Interesting
- Novel
- Ethical
- Relevant

**For Busy Clinicians**
- Large volume of patients
- Important patient outcomes
- Additional funding not required
- Measurement tools available
- Data collection integrated into usual care routines
- Interesting topic
- Within scope of practice

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4 Cummings et al., 2007; 5 Chulay, 2006
Aim

To engage clinicians in the research process by building skills in developing a clinically relevant research question.
Methods

Setting
- Cardiology, Tertiary Referral Hospital, Brisbane
- Nursing Staff
  - NUM, Nurse Educator, Clinical Nurses, Registered Nurses, Endorsed Enrolled Nurses
  - Nurse Researcher

Knowledge development
- In-service

Research team
- Cardiology clinical nursing staff; Nurse Researcher; Nursing Academic
Methods

Brainstorming using focus groups aiming for 10 potential questions

- high volume patients
- patient problems
- common nursing interventions
- common symptoms managed by nurses
- important patient outcomes
- commonly used medications
- commonly used technology

5 Chulay, 2006
Methods

Key topics in cardiology used to generate ideas included:

- 10 top DRGs
- Specific cardiology patient issues
- Nursing care for acute cardiology patients
- Cardiology monitoring and technology
- Cardiac devices
- Resuscitation
- Common co-morbidities
Methods

Over 65 topics/questions initially generated

Examples:

- Do nurses have a systematic process for applying research-based nursing interventions to clinical practice?
- Can patients manage their chest pain when they get home?
- Do patients understand their medications and can they recall the information they receive?
- Does handover meet the nurses’ needs for correct and timely information?
- Are nurses practicing health promotion behaviours themselves?
- How do nurses communicate cancellations to the patient and their family?
- How do nurses transfer knowledge into their clinical practice?
Methods

10 general questions developed

1. Do cardiology nurses practice cardiovascular risk factor modification strategies when making decisions regarding their own lifestyle?

2. What aspects of working in a health care environment impact positively or negatively on nursing staff morale?

3. What factors impede patient flow through the cardiology unit and what effect do these issues have on patients and their care?

4. Are cardiology nurses able to apply their theoretical knowledge to their clinical practice?

5. What dressing techniques for PPM sites are most effective and provide the best outcomes for the patient?
Methods

6. Can patients diagnosed with ACS undertake appropriate risk factor management and implement appropriate health care following discharge?
7. What are the pre-discharge information needs of ACS patients?
8. What knowledge and risk factor management strategies are newly diagnosed ACS patients learning prior to discharge?
9. Are cardiology nurses teaching risk factor management to patients effectively?
10. Do 8 and 12 hour shifts impact differently on nurses’ psychological variables?
Question Development

Developing researchable questions

- P - patient
- I - intervention
- C - comparison
- O - outcomes

Designed to focus clinical questions

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6 Sackett et al., 1997; ² Schardt et al., 2007
Research question development

Example:
In ___________ (population) what is the effect of___________ (intervention) in comparison to ____________ (comparison) on ____________ (outcome)?

Example:
Does mobilization at 3, 4, or 6 hours after sheath removal affect the rate and type of groin vascular complications in patients after PCI?

3 Polit & Beck 2010; 7Walker et al., 2008
Results

- 10 clinically relevant topics developed
- achieved consensus
- researchable question refined
Do cardiac patients modify their lifestyle following admission to hospital after a cardiac event?
Conclusion

- Researchable questions can be developed by clinicians
- Team work and leadership
- Access to Nurse Researcher
- Structured approach
- Engagement with the research process
The challenge in developing a good research question is ensuring ideas are generated and transformed into a feasible and relevant clinical question that results in the completion of a valid study.
Outcome

Retention of Self-Care Information Post Myocardial Infarction

- Research study commenced in March 2011
- Pre-test, post-test study
  - Recruited 135 patients
  - Follow-up 114 patients
- Data collection and analysis completed
- Results to be presented at a conference next month
References