Developing clinical research questions nursing essay

When working as a nurse, clinical questions come up regarding which is the best way to care for our patients. To help nurses make effective clinical decisions, they can use evidence-based research in their decision-making process. In order to search for the best evidence, it is important to develop research questions from the scenario and search for research evidence to answer the clinical questions. This knowledge of evidence-based nursing can help me make informed decisions and how to be prepared for future challenges as a nurse.

Scenario

According to Registered Nurses' Association of Ontario (2005), falls are the number one cause of injury in Canadian hospitals in adults over the age 65 and account for over half of hospital admissions. Falls can cause serious injuries like hip fractures or death, and financial strain on health care. It is important to take a look at this problem and find out how to reduce the risk of falls.

An example that I have encountered, while working in the hospital, is about a retired, independent woman named Eleanor. She is in reasonable good health, but the death of her husband and a few friends has taken a toll on her life. She remains active by volunteering and playing bingo at the local hall. She has three children that call regularly and live an hour drive away. Recently, Eleanor was diagnosed with arthritis, preventing her from doing some of her daily activities. One day she fell in the bathtub breaking her hip and has been admitted to the hospital after falling at home.

After undergoing hip surgery, Eleanor stayed in the hospital for one week and rehabilitation for three months in order to make a full recovery. She is now being discharged from hospital and is worried about falling again. Eleanor lives alone and one of her daughters has agreed to help with the transition of moving back home. The nurse on the floor is concerned about the number of elderly patients who have been readmitted to the hospital and wonder if implementing a fall prevention program prior to discharge will help decrease falls. In order to help Eleanor, the nurse decides to do a literature search on the issue and develops two types of questions.

Research Questions

Quantitative

Using the four elements of a question: Population, Intervention, Comparison, and Outcome (PICO), a question can be formed to help search for evidence easier (Cullum, Ciliska, Haynes, & Marks, 2008).

P- Elderly people who had a fall

I- Falls prevention program with usual care

C- Usual care

O- Decrease falls

In elderly people who had a fall, does implementing a falls prevention program with usual care decrease number of falls when compared to usual care?

Qualitative

I framed my qualitative question using the Patient and Situation (PS) model.

P- Elderly people

S- View on fall prevention

What is the view of elderly people on fall prevention?

Research Design

Quantitative

After creating a quantitative and qualitative question, the next step is to choose a research design. The study design that I have chosen to fit for the quantitative question is the randomized controlled trial (RCT) because the question focuses on the prevention of recurrent falls in the elderly using the falls prevention program compared with usual care.

As described in Cullum et al. (2008), an RCT is used for questions involving an intervention which has a good outcome. RCT randomly allocates people to receive a experimental intervention or a regular intervention. To assess the outcome of the intervention participants are followed over a period of time. In the RCT experiment, elderly people are randomly allocated to receive a falls prevention program or usual care. The participants who followed the experimental intervention are compared with the regular intervention to see if there was a difference in number of falls between the two groups.

Decrease falls

Exposure:

Falls prevention program No change

Randomization

Elderly people with usual care

who had a fall Decrease falls

Usual care

No change

Figure 1 Randomized controlled trial design.

Qualitative

A qualitative research design is appropriate to use with my qualitative research question because a small sample size would be used to explore the experiences and views of the elderly in focus groups or interviews. The qualitative research design I have chosen to best fit my qualitative question is the phenomenology theory. Phenomenology studies the experiences of people by conducting interviews to collect information (Cullum et al., 2008). Information can be collected from elderly people experiences of falling which may include fear of falling, difficulties in daily activities, and depression. These two study designs that I have chosen will help answer my research questions and efficiently search for the most appropriate evidence.

Literature Search

Quantitative

To begin my literature search in finding the best evidence that answers my quantitative and qualitative questions, I will use the 6S hierarchy of pre-processed evidence from Dicenso, Bayley, and Haynes (2009). At the top of the pyramid is the systems level which involves " all relevant and important research evidence about a clinical problem and would automatically link, through an electronic medical record, a specific patient's circumstances to the relevant information" (Cullum et al., 2008, p. 25). I will begin at the summaries level, since systems are not at this level yet. In the Best Practice Guidelines, I searched for my quantitative question using the whole sentence. The article Prevention of Falls and Fall Injuries in the Older Adult was second in the list and I found the answer to my question but it did not give the research.

The next level is called The Synopses of Synthesis and I searched in Database Abstracts Review of Effects (DARE) to find no searches that matched my question. I used the whole sentence of my question to find 0 searches and used key words elderly fall prevention program to get 3 irrelevant articles. Then I searched the Evidence-Based Nursing database and found the article " A discharge planning intervention improved outcomes in older people admitted to hospital for hip fracture after a fall" that answered my question completely. The search process was a long process and took two hours to find the appropriate article. I used different keywords, set limits and read several articles. See appendix 1 for complete search strategy.

The study by Doucette (2006) used a randomized controlled trial of 145 patients over the age of 65 admitted with a hip fracture due to a fall. Half of the participants had an intensive discharge planning intervention program and the other half had usual care. To answer the question, " In elderly people who had a fall, does implementing a falls prevention program with usual care decrease number of falls when compared to usual care?" Results showed a decrease in falls as well as hospital readmission, hospital stays, death, and an increase of independence with activities of daily living.

Qualitative

For my qualitative question, I started at the Synopses of Single Studies level and searched the Evidenced-Based Nursing Database and found no articles that answered my question. Next, I went to Single Studies and searched in PubMed. I found 1 article that was irrelevant to my scenario and changed my search methods by using different key words, limits and combining my searches. See appendix 2 for complete search strategy. The final search found the article, " Older people's views of advice about falls prevention: a qualitative study" and was third in the list.

The study article answered my qualitative question, " What is the view of elderly people on fall prevention?" Focus groups and interviews were conducted with 66 participants, over the age of 61. The findings found that participants, " do not reject falls prevention advice because of ignorance of their risk of falling, but because they see it as a potential threat to their identity and autonomy" (Yardley, Donovan-Hall, Francis, & Todd, 2006).

Conclusion

In conclusion, effectively developing clinical research questions and efficiently searching for research evidence has helped me to understand the importance of finding the best evidence based articles to support my questions. By dealing with patients, in my nursing profession, I will be able to provide better care for my patients and better understand their needs as they age. Also, I will feel more comfortable in answering questions to improve my leadership role as a Registered Nurse.