Toolkit for Identifying a Workable Problem

The important thing is not to stop questioning.

Albert Einstein
Toolkit for Identifying a Workable Problem

Nurses are constantly asking questions to better understand ourselves and the practice environment. By asking questions we may be able to identify important topics/problems and generate strategies to improve outcomes.

The first step in developing a project involves a careful definition of the problem the project is designed to address. Often the problems nurses encounter may seem vague and, in order to go about identifying a potential solution, the question needs to be made more specific. A well-defined problem contains a clear description of the “pieces” of the problem (Who or what is involved) and gives some suggestion about the scope or magnitude of the problem and/or its urgency. A “good” question or problem statement provides focus and direction for the next steps of the project. The types of problems that interest nurses may include symptom management (Big 3: pain, nausea, fatigue), knowledge deficit (either of patients or providers).

The types of questions that health care providers are interested in tend to be either broad questions or specific questions. These types of questions are called Background or Foreground.

**Background questions** ask for general knowledge about an illness, disease, condition, process or thing. These types of questions contain two essential components. that include 1) a question root (who, what, where, when, how, why) and 2) a disorder or an aspect of a disorder.

**Example:** What concerns do patients have with a new diagnosis of renal insufficiency?

**Foreground questions** ask for specific knowledge to inform clinical decisions. These questions typically concern a specific patient or particular population. Quite often, foreground questions involve comparisons, such as two drugs, two treatments, two diagnostic tests, or an exploration of how one thing is related to another.

**Example:** Are lower body strength-building exercises (compared to no exercise) effective in reducing the number of patient falls in those with gait problems?

The exercises and examples that follow are intended to help you develop a question/problem that can be searched. Feel free to print any or all of these. If you have more questions, contact members of the Research & Evidence-based Nursing Practice Council at SJPHX-NURSING&EVIDENCE-based-NURSING-PRACTICE-COUNCIL
Narrowing the Problem

1. Asking questions

In order to arrive at a useable question, it may be helpful to start asking yourself some questions:

- How do you know a problem exists?
- Is the situation viewed as problematic by a majority of practitioners?
- What evidence can be used to convey the nature and urgency of the problem?
  - Be careful here: evidence means something tangible, observable, quantifiable.
- What does the scientific literature indicate about the problem?
- Is there a specific patient need that is not met because of the problem?
- What are the "boundaries" of the problem?
  - Population, setting, degree of harm or benefit, to stakeholders?
- What are the potential sources of the problem?
- Is the issue within the control of nurses?
- Does the problem involve either inadequate knowledge, inadequate skill or is the problem one of attitude or perception?
2. Working Backwards

- Another strategy that may be useful is to think about the ideal final result if the problem were solved.
- What would it be like if X did not exist? Or if X was better? Working backward from the desired outcome may help you decide the pieces of the problem.
3. Filling in the Blanks

Another strategy that may help is filling in the blanks.

For example:

How does _____ affect _____?

**Example:** How does lack of knowledge about medication side effects affect patients’ willingness to take prescribed medications?

**OR**

How is _____ related to ____?

**Example:** How is nurses’ awareness of the effects of unrelieved pain related to the doses of PRN pain medications delivered?
4. Differentiating the Pieces

- Dividing the problem or concern in separate parts and clarifying the result of the various parts can be useful. Use the table below to list at least 3 pieces of the problem. Then write down a brief description of each piece of the problem and lastly, write down the impact of the specific piece.

<table>
<thead>
<tr>
<th>Problem Factor</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient condition</td>
<td>Is the patient perspiring and/or picking at the dressing</td>
<td>Dressing gets loosened, allowing a potential source of infection</td>
</tr>
<tr>
<td>IV site</td>
<td>Lines located in areas that move a lot (side of neck or groin) or are adjacent to moisture</td>
<td>Dressing gets loosened, allowing a potential source of infection; may also need to be secured</td>
</tr>
<tr>
<td>Dressing type</td>
<td>Options include gauze, transparent dressing, opaque dressing; each has advantages and disadvantages</td>
<td>Each type of dressing requires changing at different intervals and skin antiseptis varies with each type</td>
</tr>
</tbody>
</table>

Example: What are strategies to ensure that central line sites remain clean, dry and intact?

- By identifying the pieces of the problem, the question can be narrowed to:
  - What is the difference in terms of length of time intact and prevention of infection, between gauze and transparent dressings for central lines placed in the internal jugular in ICU patients?
5. Templates and Definitions for PICOT Questions

Sometimes it is helpful to think about the “pieces” of a question. By calling out the elements of the question, you’re more likely to arrive at a topic that is both testable and searchable.

- **QUESTION TYPE:** Intervention or therapy

- **DEFINITION:**
  ◦ To determine which treatment leads to the best outcome

- **TEMPLATE:**
  In _________________ (P),
  how does __________ (I) 
  compared with ______ (C) 
  affect ________________ (O) 
  within _______________ (T)?

- **Example**
  In family members of patients undergoing diagnostic procedures (Population) does listing to tranquil music (Intervention) or a quiet environment (Comparison) produce a greater reduction in anxiety (Outcome) within 1 hour of patient admission (Time)?

- **QUESTION TYPE:** Diagnosis or diagnostic test

- **DEFINITION:**
  ◦ To determine which test is more accurate and precise in diagnosing a condition

- **TEMPLATE:**
  In ________________________ (P),
  are/is _________________ (I) 
  compared with ____________ (C) 
  more accurate in diagnosing _____ (O)?

- **Example**
  In patients with suspected bloodstream infection (Population), does blood collected via peripheral vein (Intervention) or via central line (Comparison) provide more accurate results (Outcome)?
6. Why Strategy

Serrat (2009) described a problem description process based on asking “why” five times. This strategy stems from the idea that such questioning can lead you to identify the likely cause for an event or circumstance. Identifying a reasonable cause often helps narrow the problem/question so that you can explore strategies that will influence the outcome. Here’s an example.

**Problem: Why are AM insulin doses not always given 30 minutes prior to meals?**

Because Cerner schedules AC insulin doses at 0600 regardless of patients status: i.e. NPO, Diet ordered. Patients are very hungry in the morning and start eating before meds are given.

**WHY?**

Cerner schedules are made by pharmacy, food tray delivery times are established by the food service department?

**WHY?**

Two separate departments that function independent of each other must cooperate.

**WHY?**

Food Service Department is unaware of medication dosing restrictions related to meals, yet this department controls the food delivery schedule.

**WHY?**

Proper notification is not given by units and Food Service department is unaware of medication dosing restrictions r/t meals.

**Effect:**
Patients are given insulin doses too early leading to decreased blood sugar levels before food is available.

**Solution:** AC insulin doses NOT scheduled in Cerner or scheduled later based on food delivery times Diabetic patients could be identified with signs outside the rooms IE: NPO, Diabetic—must notify RN prior to delivering a meal tray.
References and Resources

- Evidence-based Nursing Practice. Available at [http://www.ebnp.co.uk/The%20question.htm](http://www.ebnp.co.uk/The%20question.htm)

For further assistance with your research topic you may contact:

SJHMC Nursing & Evidence-Based-Practice Council

[SJPHX-NURSING&EVIDENCE-based-NURSING-PRACTICE-COUNCIL](http://www.AZHIN.org/SJHMC)

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