

Research Problems, Research Questions (ch5) unit 3

foundation of nursing research fifth edition by Rose Marie Nieswiadomy

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Objectives

On completion of this lecture you will be able to :

- 1- Identify the sources of research problems.
- 2- The difference between the problem and the purpose of the study.
- 3-Research problem considerations.
- 4-Problem statement criteria.
- 5-Problem statement format.

The selection of research problem or research question is probably the **most important** and the **most difficult** step in the research process.

Sources of Research Problems

1- Clinical experience.

Nurses' everyday experience is a rich source of ideas for research topics.

Immediate problems that need a solution. Clinical fieldwork before a study may also help to identify clinical problems.

2- Nursing literature.

Ideas for studies often come from reading the nursing literature.

Research reports may suggest problem areas indirectly by stimulating the reader's imagination and directly by clearly stating what additional research is needed.

3-Social issues.

Topics are sometimes suggested by global social or political issues of relevance to the health care community.

For example, the feminist movement has raised questions about such topics as gender equity in health care.

4- Theories.

Theories from nursing and other related disciplines are another source of research problems.

Researchers ask, If this theory is correct, what would I predict about people's behaviors, states, or feelings? The predictions can then be tested through research.

5- Ideas from external sources.

- External sources and direct suggestions can sometimes provide the drive for a research idea.

For example, ideas for studies may emerge by reviewing a funding agency's research priorities or from brain storming with other nurses.

Additionally, researchers who have developed a program of research on a topic area may get inspiration for “next steps” from their own findings, or from a discussion of those findings with others.

Research problem considerations

The followings are Several criteria that should be considered in determining a problem to study:

1- Ethical issues must be considered

It is the responsibility of the researcher to guarantee , to the best of their ability that their research is ethical, they should be familiar with ethical guide lines

2- the problem should be significance to nursing

The researcher should ask questions such as :

- will the health care professional benefit of the finding of this study ?
- will the body of nursing knowledge increase as the result of this study?
- Can nurses use the results?

If the answers of these questions are ' yes' the problem has significance to nursing.

3- Personal motivation to conduct the study should be present

If a person is not interested in the problem to be investigated, it will be difficult to conduct a worthwhile study.

4- Qualification of the researcher should be considered.

Not every nurse is qualified to conduct research.

Caution must be exercised when research skills are not well developed. Inappropriate designs may be chosen and inappropriate data-collection methods used.

If clinical research is planned, the beginning researcher should collaborate with a more experienced researcher such as a faculty member or an advanced practice nurse.

5- Feasibility of the study must be considered

The researcher need to be reasonably sure that the study actually be carried out many questions need to be answered.

- How long will the project take?
- Are appropriate instruments available ?
- What is the cost?
- Does the researcher have support to the project?

Problem statement criteria

The important criteria for a research problem statement are that it

1-Is written in **interrogative** sentence form.

Example :

Is there a correlation between the number of hours the baccalaureate nursing students have studied and their anxiety levels before midterm examination?

2- Include the population

The population should be narrowed down to the main group of interest.

A population such as ‘nurses’, ‘students’, or ‘patients’ is too broad to be examined.

It would be better to identify these populations as ‘intensive care unit nurses’, ‘baccalaureate nursing student’ and ‘patient with recent diagnosis of diabetes’.

3- Include the variables

The variables under study must be clearly identified.

One, two, or many variables may be studied . studies may be referred to as univariate, bivariate , and multivariate studies.

There is an increase emphasis on multivariate research because nursing is concerned with the relations between many combinations of variables.

4- Empirically tested

Empirical data consist of data gathered through the sense organs. Additional equipment may be used like thermometers, scales, or stethoscopes.

Problem statement format

Problem statement for studies that examine more than one variable are usually written as correlational statements or comparative statements.

1- Correlational statement

Format: Is there a correlation between **X** (independent variable) and **Y**(dependent variable) in the population?

Example : Is there a correlation between *anxiety* and *midterm examination scores* of baccalaureate nursing students?

2- Comparative statement

A-Descriptive study

Format : Is there a difference in Y(dependent variable)between people in the population who have X characteristics(independent variable) and those who do not have X characteristic?

Example : is there a difference in *readiness to learn about preoperative teaching* between preoperative patients who *have high anxiety levels* compared to preoperative patients who *do not have high anxiety levels* ?

B-Experimental study

Format : Is there a difference in Y(dependent variable) between Group A *who received* X(independent variable) and Group B *who did not receive* X?

Example : Is there a difference in the preoperative anxiety levels of patients who were *taught relaxation techniques* compared to those patients who were *not taught relaxation techniques?*

Good luck

Self -test

Evaluate the following problem statements. Select answer A,B, C, D according to presence of necessary elements of an acceptable problem statement.

A-The population is missing.

B- The dependent variable is missing.

C-The independent variable is missing.

D-All elements are present.

- 1- Is there a correlation between fathers heights and their sons heights?
- 2- Is there a difference in the level of assertiveness between men and women?
- 3- Is there a difference in anxiety levels after relaxation exercise ?
- 4- Is there a correlation between exercise and weight loss?
- 5- Is there a relation between the self-concept of baccalaureate nursing students and their level of career aspirations?

- 6- Is there difference in pregnant women who attend prenatal classes and those who do not attend prenatal classes?
- 7- Is there a difference in the anxiety levels of preoperative patients after practicing relaxation exercises?
- 8- Is there a correlation between anxiety levels and pulse rate?
- 9- Is there a difference in people who have exercised and those who have not exercised ?
- 10- Is there a difference in the birth weight of infants?

1. D
2. D
3. A
4. A
5. D
6. B
7. D
8. A
9. B
10. C