

RESEARCH PROBLEM

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INTRODUCTION

- A research problem is a question that researcher wants to answer or a problem that a researcher wants to solve
- Identification & formulation of a research problem is the first step of the research process.
- Selection of research problem depends on several factors such as researcher's knowledge, skills, interest, expertise, motivation & creativity with respect to the subject of inquiry.
- It is believed that most of the good research studies need lots of time for selection of a research problem.

DEFINITION

- According to *Kerlinger*, 'A problem is an interrogative sentence or statement that asks what relation exists between two or more variable. The answer to question will provide what is having sought in the research.
- *R.S. Woodworth* defines problem as 'a situation for which we have no ready & successful response by instinct or by previous acquired habit. We must find out what to do', i.e. the solution can be found out only after an investigation.
- In *other words*, 'a research problem is an area of concern where there is a gap in the knowledge base needed for professional practices.

IDENTIFICATION OF RESEARCH PROBLEM

- Identification of a research problem is the first & most important step in research process.
- Generally, a broad area is selected & then a broad topic is delimited or narrowed down to a specific one-sentence statement of the problem.
- This step of the research process is considered as the most difficult & challenging, & need slots of time.
- A research problem may come from several sources:



🌟 **Personal Experiences:**

- ☞ Day-to-day personal experience of a researcher may serve as good source of ideas to formulate a research problem.
- ☞ For example, a researcher observed domestic violence suffered by wives of alcoholic husbands.
- ☞ This experience may provide ideas to identify several research problems related to domestic violence against women.
- ☞ There may be so many such life experiences of a

● **Practical Experiences:**

- ☞ Nurses get plenty of ideas to formulate research problems from their clinical experiences.
- ☞ Every curious nurse has several questions to be answered which are encountered during clinical experience.
- ☞ For example, a nurse finds that unrestricted visiting hours in surgical wards reduced the analgesic demand among postoperative patients.
- ☞ Such clinical experiences could be rich sources of ideas to identify a significant research problem.

● **Critical Appraisal of literature:**

- ☞ When we critically study books & articles relating to the subject of our interest, including research report, opinion articles, & summaries of clinical issues, pertinent questions may arise in our mind.
- ☞ These may strike reader's mind indirectly by stimulating imagination & directly by stating what additional research is needed.
- ☞ For example, a nurse reads an article on the prevalence of the pin site infection among patients with external fixators; while reading this article nurse learns that there is lack of consensus about pin site care.
- ☞ This information may serve as a basis to formulate a research problem.

● **Previous Experience:**

- ☞ A body of knowledge should be developed on a sound foundation of research findings.
- ☞ Usually at the end of a research further research problems are suggested, based on the shortcomings of previous research, which can be investigated.
- ☞ In nursing profession, not much research has been yet done; therefore, this profession needs research who are willing to replicate or repeat other studies on different samples & settings where all the essential elements of the original study are held intact.

● Existing theories:

- ☞ Research is a process of theory development & theory testing.
- ☞ Nurses use many theories from other disciplines in their practices.
- ☞ If an existing theory is used in developing a researchable problem, a specific statement from the theory must be isolated.
- ☞ Generally, a part of parts of the theory are subjected to testing in the clinical situation.

🌐 **Social issues:**

- ☞ Sometimes, topics are suggested by more global contemporary social or political issues of relevance to the health care community.
- ☞ For example, HIV/AIDS, female foeticide, sexual harassment, domestic violence, & gender equality in health care & in research are some of the current social & political issues of concern for health care professionals.

● **Brainstorming:**

- ☞ Brainstorming sessions are good techniques to find new questions, where an intensified discussion among interested people of the profession is conducted to find more ideas to formulate a good research problem.
- ☞ For example, ideas for studies may emerge from reviewing research priorities by having brainstorming session with other nurses, researchers, or nursing faculties.

● **Intuition:**

- ☞ Traditionally institutions are considered good sources of knowledge as well as sources to find new research problems.
- ☞ It is believed that reflective mind is good sources of ideas, which may be used to formulate a good research problem.

🌟 Folklores:

- ☞ Common beliefs could be right or wrong.
- ☞ For examples, it is generally believed that studying just before the test decrease the score.
- ☞ We believe we should not study just before test to relax our mind.
- ☞ Researchers can conduct a research study on whether one should study before the test or not.

🌐 **Exposure to field situations:**

- During field exposure, researchers get variety of experiences, which may provide plenty of ideas to formulate research problems.
- For example, while working in field a researcher observed a specific traditional practice for cure of disease condition, which can be used as research problem to investigate its efficacy.

🌐 **Consultation with experts:**

- ☞ Experts are believed to have sound experience of their respective field, which may suggest a significance problem to be studied.
- ☞ In addition, expert may help in finding a current problem of discipline to be solve, which may serve as basis for formulation of research problem.

CRITERIA FOR SELECTING A GOOD RESEARCH PROBLEM

1. Significance to nursing profession

- A problem which a researcher is selecting should have significance to nursing profession or it will not serve any purpose.
- A research problem is significant for nursing profession when it is directed to develop or refine the body of professional knowledge.

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- A research problem could be considered significant for nursing profession if it fulfils the following criteria:
 - Nursing profession & patients, nurses, & health care fraternity will benefit from the study.
 - The results will improve clinical nursing practices.
 - Promotes nursing theory development or testing.
 - Provides solutions of current nursing practice needs
 - Generate information to get practical implications for nursing profession.

2. Original

- It is fundamentally considered that every research problem should be new & unique in itself.
- Therefore, it is the key responsibility of a researcher that an innovative knowledge is used for selecting a research problem, so as to extend the growth of existing body of knowledge on a profession.

3. Feasible

- Feasibility is an essential consideration of any research project.
- Regardless of how significant or researchable a problem may be, the feasibility of research problem in reference to time, availability to subjects, facilities, equipment & money, & ethical considerations should be checked.
- It will help the researcher to decide whether selected problem is appropriate or inappropriate & study can be

Time:

- A nurse might be interested in studying sibling relationships among quintuplets knowledge of the incidence of quintuplet birth would certainly discourage anyone considering research on this particular population unless the researcher plans to make this a lifetime project.
- So, time is always a factor to be considered.
- It is wise to allow more time than seems to be needed because unexpected delays frequently occur.

✚ **Cost:**

- All research projects cost money; some studies are much more expensive than others.
- The researcher must consider realistically the financial resources available.

✚ **Equipment & supplies:**

- All research projects require some type of resources.
- Therefore, before making the final decision to conduct a study, an accurate determination of the needed equipment & supplies should be ensured.
- If researcher takes into consideration equipment & supplies in the early phases of a research project, there are less chances of the project to be revised or discarded later because of equipment or supply

problems

Administrative support:

- Many research projects require administrative support.
- The nurse researcher may find it very difficult to conduct research independently.
- Financial as well as psychological support from administrative is very helpful.
- Knowing that your superiors support your research efforts can be very powerful motivating force.

Peer support:

- Many research ideas have never been developed because potential researchers received no support from their peers.
- One of the best ways to determine a researchable problem is through interactions & discussions with other nurses.
- A climate of shared interest in nursing research is essential among the members of the nursing

✚ **Availability of subjects:**

- A researcher may believe that study subjects are readily available for the study. But this may not be the case.
- Potential subjects may not meet the study criteria, may be unwilling to participate, or may already be participating in other studies.

✚ **Researcher's competence:**

- A research problem can only be feasible if it is in accordance with researcher's competence, where researcher is capable to handle a given research

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Ethical considerations:

- A researcher must ensure that the research problem can be considered by the ethical committee without undue hurdles.
- A very important topic of research cannot be considered feasible unit & unless it is in accordance with ethical guideline.

4. Solvable/researchable:

- Problem selected is considered good only if it is solvable so that chances of insolvability of problem should be minimized.
- It will enhance relevant results.
- For example, a researcher selects a research problem to know the existence of God in this universe.\
- These sorts of problems are ambiguous & impossible to solve.

- Therefore, the researcher must ensure that a research

5. Current:

- A good research problem must be based on the current problems & needs of a profession, so that results generated will be of more use.
- Furthermore, more number of the professionals will be interested in the research conducted on the current issues of their profession.

6. Interesting:

- A research problem can only be considered good if it is in accordance with researcher's field of interest.
- A research problem must be as per the motivation of the researcher & it should be fascinating to the researcher, so that research is conducted with full enthusiasm & not merely for its accomplishment.

FORMULATION OF RESEARCH PROBLEM

**Selection of a research
areas**



**Reviewing the literature &
theories**



**Delimiting the research
topic**



**Evaluating the research
problem**



**Formulating final statement
of research problem**

Selection of a research area:

- ✦ Formulate of a research problem begins with selection of a broad research topic from personal experience, literature, previous research, & theories in which researcher is interested & has significance for nursing profession.
- ✦ For example, a researcher gets an idea to conduct a study on the female feticide.
- ✦ Therefore, he or she initially begins with such broad **research topic.**

Reviewing literature & theories:

- ✦ After getting a broad idea for research, he or she needs to review the nursing literature & theories.
- ✦ Literature is reviewed to know what has already been done in this selected areas of research.
- ✦ Review of nursing theories provides an opportunity for nurses researcher to plan a research problem to contribute towards either testing or development of a theory/conceptual model.

Delimiting the research topic:

- ✦ In this step, researcher proceeds from a general area of interest to more specific topic of research to conduct a study.
- ✦ For example, initially a researcher decide to conduct a study on female feticide; later in this stage researcher limits it to specific research topic '*a study on perception of women about causes & prevention of female feticide in selected rural communities of district mehsana, Gujrat*'.

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✦ In this stage, a researcher clearly identifies

Evaluating the research problem

- ✦ Once researcher is clear about the specific research problem, next the research problem must be carefully evaluated for its significance, researchability, & feasibility.
- ✦ Feasibility of the research problem should be evaluated for time, cost, availability of subjects & resources, administrative & peer support, ethical consideration, & researcher's competence & interest.

Formulating final statement of research problem:

- ✦ After establishing the significance, researchability, & feasibility, then researcher finally formulates a final statement of a research problem.
- ✦ A statement of research problem could be in declarative or interrogative format

a. Declarative format:

In this format, a research problem is stated in declarative statement.

For example:

- 'A descriptive study on prevalence of bedsores among unconscious patients admitted in intensive care unit of Lions hospital, Mehsana'.
- 'A exploratory study on contributing factors of maternal mortality in selected rural communities of district Mehsana, Gujrat'.

b. Interrogative format:

In interrogative format, a research problem is stated in question form.

For example:

- 'What is the influence of level of hemoglobin on pin site infection among patients with external skeletal fixators admitted in orthopedic wards of Lions hospital, Mehsana.
- 'What is the effect of ginger or morning sickness on pregnant women in selected urban communities of district Mehsana, Gujrat.

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- ✦ The choice of either of these two types of format formulation of a research problem depends on the researcher's preference & institutional policies.
- ✦ Declarative format much popular among researchers.
- ✦ For the formulation of a research problem it is preferable it it fulfils the following features:
 - ✓ Research problem is clearly, precisely articulated.
 - ✓ It clearly states the variables, population, & research setting under study.
 - ✓ Variable are expressed in measurable terms.
 - ✓ The type of study also may be included in the statement of research problem.

Example of a well-formulated research problem

“Effectiveness of planned teaching on the knowledge of staff nurses working in psychiatric unit regarding Physical Restraints for psychiatric patient in selected hospital of Vidharbha region”.

It is an example of declarative form of the statement of problem, where it is precisely & concisely stated & include most of the required components of a research statement, which are

- ***Research study type:*** Quasi-experiment
- ***Variable(s):*** it has two research variable i.e knowledge & planned teaching
- ***Population:*** Nurses working in selected psychiatric hospital
- ***Research setting:*** Psychiatric hospital in

Thank you