Planning Phase
In this chapter, we address the very first step in conducting a research study: deciding upon the topic of your study. It is a creative process involving observing, thinking, reflecting, reading, and talking with others.

**RESEARCH DEFINED**

Research is the systematic investigation of phenomena (Kerlinger, 1986). It begins with identification of a problem or an idea. Reading, searching, discussing, and thinking about the idea should follow. What do we know about this problem? Is there evidence to support this solution, or is more needed? After you have refined, clarified, and focused on a clearly defined question or hypothesis, what was once an idea becomes your research topic. Deciding how to investigate the topic selected is the next step. The decision should be based on what is already known and what you have decided to investigate. If very little is known, you may need to use one of the many qualitative approaches available. If more is known, then you can ask a very specific question or generate a hypothesis about relationships between specific factors. This is the design phase. The design of your study will become the guide for implementation of the study. Next you enter the implementation phase, during which you obtain the necessary permissions, recruit subjects, and collect the data. Analysis may begin during the time you are collecting data, or it may be done upon completion of data collection, depending on the study design.
When the study is completed, you share the findings formally or informally with people who were involved in the study and with those, if any, who provided financial support. Finally, the results should be published with attention to how your study contributed to nursing knowledge and nursing practice and what you would do next to continue this line of research (Box 1-1).

**BOX 1-1 Major Stages of a Research Study**

- Identify a problem or area of interest.
- Explore this problem or area of interest to find out what is known.
- Define the research topic.
- Generate questions or hypotheses.
- Design the study.
- Conduct the study.
- Analyze the results.
- Report the findings.

When the study is completed, you share the findings formally or informally with people who were involved in the study and with those, if any, who provided financial support. Finally, the results should be published with attention to how your study contributed to nursing knowledge and nursing practice and what you would do next to continue this line of research (Box 1-1).

**FINDING A TOPIC**

The National Institute for Nursing Research’s strategic plan (NINR, 2011) notes rising rates of chronic illness, health inequities, and financial pressures in our healthcare system, all demanding new solutions that need to be tested in well-designed research studies. Five themes for future nursing research were identified (Grady, 2014):

- Symptom management
- Health promotion and prevention
- Self-management of chronic illness
- Palliative and end-of-life care
- Technological innovations to improve healthcare

Nurse researchers are involved in a wide range of studies, from basic research in labs to research in clinical settings. They may mine big datasets for important patterns in health and illness or observe the effects of drug resistance on emerging pathogens. From prebirth to the end of life, nurse scientists are working on studies to increase our understanding of the best ways to promote health, prevent disease, and treat illness more effectively.
Landmark Studies

In 2006, the National Institute of Nursing Research published a report featuring 10 landmark studies that demonstrate the scope and impact of nursing research. To give you an idea of the wide range of topics that can be addressed by nurse researchers, these landmark studies are listed in Box 1-2.

BOX 1-2  Ten Landmark Nursing Research Studies


(continues)
What is it that leads researchers to such important discoveries? Root-Bernstein (1997) says that these researchers are no more intelligent than other researchers. Neither are they right more often. Instead, he thinks that they are “simply more curious... more persistent, readier to make detours and more willing to tackle bigger and more fundamental problems” (p. 407). He says they also “possess intellectual courage” and “work at the edge of their competency.” “As they stretch themselves, they stretch science” (p. 408). They are an inspiration to all of us who do research (Box 1-3).

BOX 1-3 Strategies Leading to Cutting Edge Research

- Action (exploring) leads to results, not inaction.
- Conduct a broad search for ideas; trial and error is often involved.
- Think big! Study important problems.
- Ask new questions and look at old problems from a new perspective.
- “Do what makes your heart leap!” A quote from Jonas Salk, developer of the Salk polio vaccine (p. 410).

Once you learn to spot them, you will find that you encounter possible topics for research every day, even several times a day. To do this, you need to develop the ability to “think research.”

Consider the following sources of ideas for research and some fictional examples of each:

- **An intriguing theory or research finding that needs further testing:** Louise read that wearing scrubs several days without laundering them contributed to hospital-acquired (nosocomial) infections (McCaughey, 2009). She decided to retrieve the original research report and to study (1) how many hospital personnel actually did this, and (2) if infection rates could be reduced by ending this practice in her facility.

- **A patient care experience that has had an impact on you as well as on your patients or clients:** In one week, Robert lost three young patients to nosocomial infections. He vowed to stamp out these infections on his unit and turned to research to discover how to do this.

- **A significant gap in the knowledge base:** Doris had to return to work six weeks after her son was born. She wondered what effect this might have on her infant. Is full-time day care injurious to an infant’s growth and development? Does it affect adjustment in later life? How do you select a day care facility that has an environment that fosters maternal–infant bonding and infant growth and development?

- **Personal experience:** When Ellis’s closest friend experienced severe brain injury from an auto accident, she decided to study interventions that facilitate regaining independence in individuals with closed head injury.

- **A line of inquiry that you have already begun:** Charisse conducted a small pilot study of the effect of video game playing on sleep quality in middle school students. Her results suggested that more than two hours a day of video game playing interfered with entering the rapid eye movement (REM) phase of sleep, so she decided to plan a much larger study to retest her results.

- **A branch off the line of inquiry you have already begun:** Charisse had also observed during her pilot study that the preteens who played video games for several hours a day tended to be overweight. She decided to include the interaction of inactivity, eating habits, and video game playing that may contribute to weight gain in middle school students in her larger study.

- **A hard-to-solve clinical or research issue that you or your colleagues have been wrestling with (Chow & Harrison, 2002):** Dominic was surprised to learn that no one at his hospital had used data in their electronic health record to track patterns of
hospital-acquired pressure ulcers. He partnered with the hospital’s information technology team to develop a systematic pressure ulcer monitoring system.

“THINK RESEARCH”

In each of the examples just described, the person had learned how to identify a possible topic for research. The following are some ways to develop the ability to “think research”:

- Read as much as you can about your specialty area in journals, in books, and online.
- Reflect on your practice: Why are we seeing so many young women with urinary tract infections? Why do some of my HIV patients seem to be healthy in spite of their infection? Why do some high school students have second, even third, pregnancies, when others do not?
- Talk with colleagues about your practice. Seek out thoughtful, reflective, analytical, and curious people to discuss ideas with.
- Develop your sense of curiosity; ask questions, and explore new ideas.
- Instead of accepting what you read in the popular media, follow up on interesting items by checking them out with the original research.
- Practice thinking critically: Instead of accepting what you hear from others, critically evaluate what you are told, not only for its logic, but also for evidence to back up the conclusions.

It takes a willingness to question authority and to consider new approaches to problems to “think research.” Nursing practice is still dominated to a great extent by routine and the opinions of experts. Uncertainty is too often seen as a threat instead of an opportunity (Schon, 1983). The tendency toward “ritualizing and habitualizing” (Hasseler, 2006, p. 221) practice is a real danger to providing the highest quality care. Instead, nurses should be prepared to question accepted routines and expert opinions as well as their own actions and to engage in research that informs practice.

Reflecting on one’s own practice and the practices of others raises questions that can be addressed through research. Schon notes that practitioners usually know more than they can say, calling it a “knowing-in-practice,” which is not ordinarily verbalized. Research, he says, should not be a distraction from practice but a development of it (1983, p. ix). To become more reflective requires the following (adapted from Johns, 2008):

- Curiosity: Interest in why things happen
- Openness: Willingness to consider novel ideas
- Concern: Believing that what you do matters; caring deeply about what happens to one’s patients and clients
Commitment: Owning responsibility for what happens to one's patients and clients

Intelligence: Ability to critically analyze a patient care situation and identify gaps in nursing knowledge

Courage: To think for yourself, to share your ideas with others, to try new approaches

Schon (1983) wrote that when someone “reflects-in-action,” he or she becomes a “researcher in the practice context” (p. 68). The following are a few questions you might ask yourself in reflecting on your practice (adapted from Johns, 2005):

• What is it that concerns me about this client or patient situation?
• How could I (we) have responded more effectively?
• What could have been done differently?
• What gaps in our nursing knowledge are evident in this situation?
• What needs to be done to fill these gaps?

TRANSFORMATIVE RESEARCH TOPICS

Transformative research studies are those that are especially innovative because they challenge prevailing wisdom, generate unexpected insights, and/or redefine the boundaries of our discipline (National Science Foundation [NSF], 2007). In a report issued in 2007, the National Science Foundation offered the following definition:

Transformative research involves ideas, discoveries or tools that radically change our understanding of an important existing concept or practice or leads to creation of a new paradigm or field. . . . Such research challenges current understanding or provides pathways to new frontiers. (NSF, 2007)

Likewise, the National Institutes of Health have created a Common Fund that supports transformative research in “some of the most difficult and novel areas being confronted by the biomedical research community” (National Institutes of Health, 2014).

Transformative research studies are likely to be transdisciplinary, novel, risky, highly innovative, and exciting. This is in contrast to most studies done, which are incremental in nature, natural extensions of previous work done by either the researcher or other researchers (Johnston & Hauser, 2008). As you probably have noted, it is not always easy to identify which studies will be transformative and which will not when they are first proposed (Huang, Hsu, & Lerman, 2013). Novelty (newness) and the potential for rapid change and growth characterize a transformative research topic (Small, Boyack, & Klavons, 2014). Most of our research is not going to be transformative, but keep it in mind as a challenge to be innovative and creative when seeking a topic.
GENERATING AN IDEA LIST

It is often helpful to keep a list in a file labeled “Ideas” in a research folder on your computer or server. Alternatively, keep an Ideas list in your calendar or in a notebook. List all the ideas that occur to you as you think, reflect, read, listen, and talk with colleagues. Many, but not all, of these ideas will be discarded eventually for various reasons, such as the following:

- Questions of right and wrong: these are ethical questions, not research questions.
- The problem is outside the scope of nursing.
- The problem is a minor one.
- The situation of concern was primarily a political, financial, personality, or power problem, not a gap in knowledge.
- Much is known and understood about this concern, although it has not yet been put into practice in your facility. (This situation calls for leadership and perhaps a translational research study.)
- Although it may be important, it is of little interest to you or is outside your expertise.

Once you have discarded those ideas that are inappropriate or not of interest to you, you should be left with some promising ideas. From these, try to select a strong topic (Fleming, 2009), one that will be worthy of your time and attention.

MAKING A FINAL SELECTION

Once you have discarded those ideas that are not suitable for one or more reasons, which of the remaining ideas may be the right one to choose? Consider the following characteristics of a strong topic in making your final selection:

Innovative: New, novel, creative; not a topic that has been thoroughly and repeatedly studied. For example, we know and have repeatedly demonstrated that caregiving can be burdensome. Simply demonstrating that again does not add much to our knowledge base.

Impact: Will the results be important? Will they contribute to improving care? How much and what kind of a contribution? Few studies are completely worthless and insignificant, but given the amounts of time and energy needed to complete a research study, selecting a significant topic makes this investment worthwhile. Consider not only the impact on clinical practice but also the policy implications of a topic you might study. It is important that research findings be translated into both practice and policy (Broome, 2014).

Reasonable: You also have to be practical. You may want to find the cure for asthma or spinal cord injuries or solve the problem of drug use in high-risk youth, but these
goals are likely to be too ambitious for one study. Nevertheless, you can design a study that will produce results that contribute to these worthy goals. Ask yourself also if you have sufficient time, money, personnel, and equipment to conduct the study. Finally, do you have sufficient expertise—either yourself or in members of your team—to conduct the study?

**Ethical:** Although it is unlikely that you will devise an unethical study, it is important to consider whether participation will put people in jeopardy (for example, asking abused spouses to keep a diary could put them in danger of inciting further abuse if the diary were found) or if a demonstrably effective intervention is being withheld from participants in your study.

**Exciting:** Completion of a research study requires a relatively long-term commitment on your part. It is much easier, and you’ll do better work, if you are passionate about the study.

CONCLUSION

This chapter is a guide designed to help you select a strong topic for your research study—one that is innovative, significant, reasonable, ethical, and exciting to you personally. Remember, you do not need to accomplish your long-term goal in your first study. Often, it takes a series of studies to address an important research question.

REFERENCES


Chapter 1  Identifying a Research Topic


