What is healthcare research?

Part 1

Chapters

1 The research journey

Figure 1.1 The steps of the nursing research journey: it begins and ends with nursing practice.

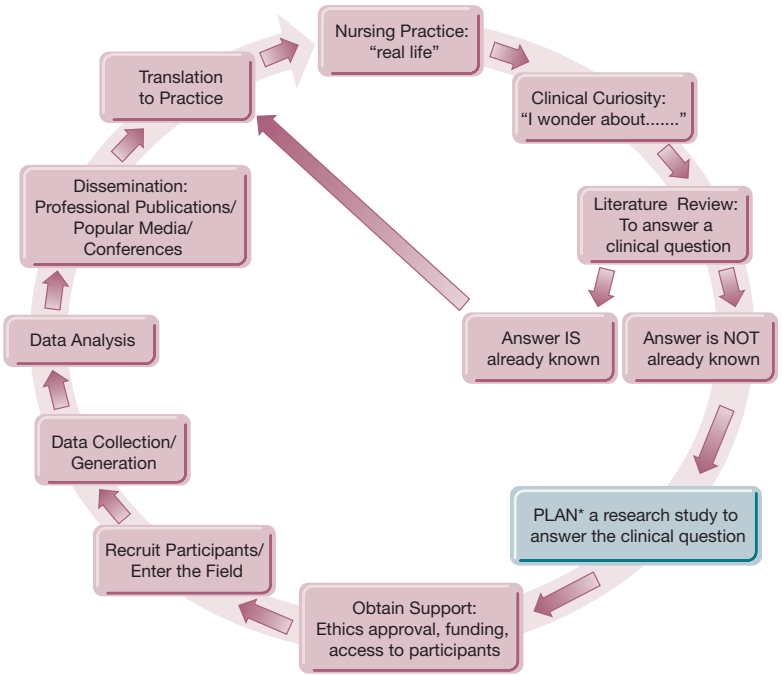
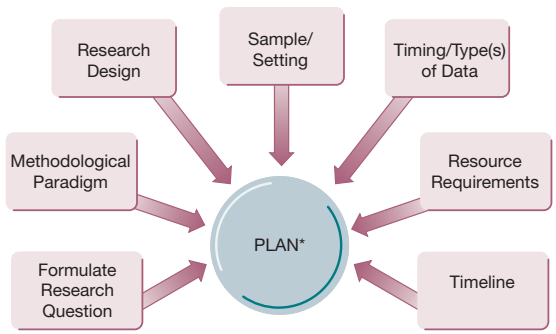


Figure 1.2 Planning: the pivotal step.



Clinical curiosity

The first step in the research journey is to begin to wonder about something. A vibrant research culture will foster this clinical curiosity. If the patient or client's best interests are truly at the heart of a healthcare organisation, then its employees will always be on the lookout for how things might be done better, for how some vexing recurring problem might finally be solved. The first step of research is to observe, to notice, to look around, to wonder why things are happening the way they are, and to envision how they might be improved (Figure 1.1).

Literature searching

The next step is to see if our curiosity can be immediately satisfied by what is already known in the existing body of research evidence available at our fingertips. This step includes finding the research literature, then appraising it both for quality and for applicability to our own practice context. If there have already been a number of rigorously conducted studies and they concur on the best approach after studying populations that are similar to our own clients, then we can immediately apply that evidence to our own practice without the need to conduct further research. This process of translation of research evidence into the practice setting requires excellent leadership and change management skills, as well as project management. Evidence must be presented, appraised and discussed before any change can, or indeed should, occur.

Planning a research study

However, an exhaustive search of the current body of research evidence may fail to unearth a compelling, congruent body of work. The clinician may still be left wondering how best to care for their client. Once such a gap in the literature has been identified, this gap may justify the expenditure of human and

material resources to conduct a study to answer the clinical question. This is where the fun really begins!

Research question

It is vital to carefully delineate exactly what it is that you are trying to discover in any research project, as that research question will drive all the other decisions you will need to make as you devise your research plan (Leedy & Ormrod, 2013) (Figure 1.2).

Methodological paradigm

Once you know your question, you can begin to select the best methodological paradigm to use to frame your research plan (Schneider & Whitehead, 2013). If you are trying to test an intervention for effectiveness, the 'gold standard' is to conduct a randomised controlled trial (RCT) in the positivist paradigm, by gathering quantitative data to use in statistical comparisons. However, there are many other types of research questions you may be wondering about, and if you choose the wrong paradigm you are still going to get an answer, but not to *your* question.

Research design/methods

Once you have chosen the most appropriate and relevant methodological paradigm, you can begin to plan the 'nuts and bolts' of your study (Leedy & Ormrod, 2013). Who will be your participants – your sample? Where will you recruit your participants? What kind of data will you collect from them: numbers, words or both kinds of data? Will it come from interviews, chart audits, questionnaires, focus groups, observations, document analysis? Will the data be collected once or a number of times, and how far apart? Who will collect the data and how will they be hired and trained? How much time and money will you need to conduct the study? Are there ethical or legal considerations that you need to address in your research plan?

Obtain support

Ethical approval

Most research requires the oversight and approval of a human research ethics committee (HREC), which evaluates all your carefully considered plans to ensure two things. First, that you are conducting research properly, so that it will have merit and usefulness, and not be trivial and a waste of everyone's time. Second, that you have included safeguards to ensure that the ethical rights of the participants in your study are maintained. You will need to prepare a participant information sheet and an informed consent form for the HREC to review and approve. The committee will also wish to see any questionnaire you want participants to complete, or the questions you may ask during an interview or focus group, or the kinds of biological or other measurements you may be planning on obtaining (e.g. blood pressure, waist circumference, serum glucose level).

Funding

A number of sources, both public and private, are available to fund research, but nearly all require the project to be fully described in a proposal that includes all the components and decisions we have been discussing thus far, including a detailed budget. Interim and final reporting will be required, stating how the budget was followed and what the research findings revealed.

Access to participants

It is important to ensure that you are able to reach the participants who can tell you what you want to know. If they are patients (or staff) within a healthcare facility, you will need the permission of that facility to recruit there. You need to show the HREC that you have a letter of support from the facility, which indicates that the management of that facility agree that your research is useful and appropriate, and that they will help you find and connect with the participants you need to recruit.

Recruit participants/enter the field

A recruitment plan needs to be included in the overall research plan. You need to 'sell' your study to potential participants, so that they will donate the time and attention needed to collect data from them, or in qualitative studies to generate data with them (Birks & Mills, 2015).

Data collection/generation

Once you have attracted participants, you need to administer a questionnaire, draw a blood sample, conduct an interview or in some way obtain the data you need in order to answer your research question. It is important to have considered and decided on as many details as possible in advance, but this level of preparation will vary according to research design. In an RCT, a strict protocol must be folowed (Schneider & Whitehead, 2013); in a qualitative study, some of the decisions about when, where, how and who will provide data will evolve based on earlier data gathered and analysed (Birks & Mills, 2015).

Data analysis

This stage can occur after all data has been collected, or occur concurrently with data collection. It may consist of statistical analysis of quantitative data using computerised software such as SPSS, or thematic analysis of qualitative data using computerised software such as NVivo, or both kinds of data analysis in a mixed methods study.

Dissemination

Once you have analysed your data, it is time to tell the world what you have found. Research left gathering dust on a shelf in a university library is a paradise lost. Research that is not disseminated widely cannot possibly be translated into practice, and it is beholden on every responsible researcher to share their findings, both locally and globally (Schneider & Whitehead, 2013). This sharing is done through professional conferences, peer-reviewed professional journals and textbooks, and speaking to the popular press to ensure lay people (future or current clients) also become aware of the findings.

Translation into practice

This final stage can be the most challenging, and is more than just dissemination. Changing the practice of experienced clinicians in established healthcare settings can be an uphill battle, and one that requires education, motivation and perspiration. However, if we know better and do not do better, then we have failed our patients and also failed our past, present and future researchers. The legacy of research must be concrete improvements in the care of our clients, our clinicians, our clinical contexts and our communities.

References

Birks, M. & Mills, J. (2015) *Grounded Theory: A Practical Guide*, 2nd edn. Los Angeles: Sage.

Leedy, P.D. & Ormrod, J.E. (2013) *Practical Research: Planning and Design*, 10th edn. Boston: Pearson.

Schneider, Z. & Whitehead, D. (2013) *Nursing and Midwifery Research: Methods and Appraisal for Evidence-based Practice*, 4th edn. Sydney: Mosby Elsevier.