GUIDED TOUR

A list of **Abbreviations** at the beginning of the book provides a quick reference to help you with unfamiliar acronyms.

ABBREVIATIONS

ACCHO	Aboriginal community-controlled health organisation
ACL	anterior cruciate ligament
AHW	Aboriginal health worker
AMS	Aboriginal Medical Service
ANOVA	analysis of variance
CAQDAS	computer-assisted qualitative data analysis software
CDM	clinical data-mining
CEBM	Centre for Evidence-Based Medicine
CONSORT	Consolidated Standards of Reporting Trial
CPG	clinical practice guideline
CPR	collaborative participatory research
CTT	classical test theory
EBM	evidence-based medicine
EBP	evidence-based practice

Each chapter opens with **Chapter objectives** that are clearly defined to focus your learning on the main points of the text.

CHAPTER OBJECTIVES

In this chapter you will learn about:

- knowledge and evidence
- evidence and evidence-based practice
- evidence-based practice and hierarchy of evidence
- evidence-based practice and research

Key terms highlight important concepts that will be addressed in the chapter.

KEY TERMS

- Effectiveness/efficacy
- Ethnography
- Evidence
- Evidence-based practice
- Knowledge
- Knowledge acquisition
- Metasynthesis
- Mixed methods
- Phenomenology
- Systematic review

Key terms, with their definitions, are placed in the **margin notes** throughout the text to provide concise explanations of the main concepts and aid your understanding as you read.

Knowledge and evidence

According to Grinnell and colleagues (2014, p. 8), **knowledge** is 'an accepted body of facts or ideas which is acquired through the use of the senses or reason'. In the old days, we used to believe that the Earth was flat. Our belief came about through those who were in 'authority', who told us so, or because people in our society had always believed that the world was flat. Now we know that the Earth is spherical because scientists have travelled into space to observe it from this perspective. Other ways of knowing include what we have learnt from our own tradition, our personal experiences and reasoning (either deductive or inductive or both) (Grinnell & Unrau 2018; Schmidt & Brown 2019).

However, Grinnell and Unrau (2018) argue that the most efficient way of 'knowing something' (**knowledge acquisition**) is through research findings, which have been gathered through the use of scientific research methods. In their writing, when Sackett and colleagues (1996) indicate 'evidence', they make it clear by stipulating 'evidence from research'. Thus, although we need information from many sources, EBP emphasises the significant role of research in clinical decision-making (Hoffman et al. 2017, p. 2).

What has knowledge got to do with evidence? It is through our knowledge that evidence can be generated. This evidence can then be used for our practice. Without knowledge, there will not be evidence that we can use. But how can we find knowledge? For scientists and health practitioners, the answer is through research and research methods (Grinnell & Unrau 2018; Schmidt & Brown 2019). According to Grinnell and Unrau (2018, p. 16), the research method of knowing comprises three complementary research approaches: the

Knowledge
An accepted body of facts or ideas acquired through the use of the senses or reason, or through research methods.

Knowledge acquisition
The most efficient way of 'knowing something' is through research findings, which have been gathered through the use of research methods.

Stop and think questions appear at regular intervals, inviting you to critically reflect and consider your own responses to important issues discussed throughout the chapter.

STOP AND THINK

Portney (2020, p. 53) suggests that 'from an evidence-based standpoint, research has continued to document escalating health care costs, disparities in access to health care, and unwarranted variations in accepted practice—with geography, ethnicity, socio-economic status, and clinical setting often cited as major determinants.Addressing these issues requires understanding how evidence informs our choices to support quality care'.

- What is your view about this argument? Discuss.

Research in practice boxes introduce the reader to practical cases and examples that demonstrate how research can be applied in clinical practice.

RESEARCH IN PRACTICE

EBPs tend to denounce strongly affirmed beliefs. Sometimes, new evidence from scientific research can discredit formerly accepted beliefs and supplant them with new practices which are more accurate, effective and safer. For example, stomach ulcers were previously believed to be the result of consuming spicy foods or stress. Generations of ulcer sufferers avoided certain foods, drank gallons of milk and tried to stay calm. In 2005, two Australian physicians discovered that most gastritis and stomach ulcers are caused by colonisation with a bacterium called *Helicobacter pylori* and not by stress or spicy food. They won a Nobel Prize for this discovery work. Nowadays, antibiotics are used to treat stomach ulcers (Fink 2015, p. 3).

Key information and useful examples are summarised in **Boxes** for easy reference.

BOX 11.1 PRINCIPLES FOR CONSTRUCTING SURVEY QUESTIONS

- Use simple everyday language typical of the respondent group.
- Avoid jargon, technical terms and abstract concepts.
- Avoid ambiguity and double-barrelled questions.
- Avoid double negatives.
- Avoid making suggestive statements or assumptions about respondents.
- Provide sufficient instructions and probes.
- Pre-coded questions should offer sufficient response categories.
- When asking people to record past events, provide a temporal frame, e.g. 'Over the last four weeks' or 'In the past year'.

Clearly presented **Tables** and **Figures** encourage analysis of relevant data by presenting facts in a format that assists comprehension.

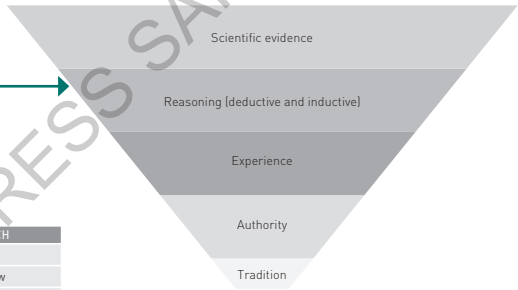

TABLE 2.1 Comparison of qualitative and quantitative approaches

QUALITATIVE APPROACH	QUANTITATIVE APPROACH
Words	Numbers
Participants' points of view	Researcher's point of view
Meaning	Behaviour
Contextual understanding	Generalisation
Rich, deep data	Hard, reliable data
Unstructured	Structured
Process	Static
Micro	Macro
Natural settings	Artificial settings
Theory emergent	Theory testing
Researcher close	Researcher distant

Each chapter ends with a **Summary** that draws together important ideas. To reinforce what has been covered, these link back to chapter opening objectives.

Summary

> The scientific method is nearly perfect for understanding the physical aspects of our life. But it is a radically limited viewfinder in its inability to offer values, morals and meanings that are at the center of our lives (Huston Smith in Grinnell & Unrau 2018, p. 12).

In this chapter, I have introduced the concept of knowledge, evidence and EBP in health. Through knowledge, evidence can be found and used for practices in health care. I have argued that in many situations and for many health issues, researchers and practitioners need to find the 'best' evidence, and this may require us to carry out a research study to find our answers. Portney (2020) contends that health practitioners must be able to use research in their practice. Thus, knowledge about the research process is essential. This book will provide good knowledge about how to conduct research in order to find the best evidence that health practitioners can adopt.

In summary, I argue that knowledge is essential in the era of EBP in health care. Without knowledge, evidence cannot be generated. Without 'appropriate' evidence, our practice may not be applicable or suitable to those whose needs are served by health care providers and practitioners.

Practice exercises consolidate your understanding of a particular concept covered within the chapter. They are appropriate for use in class-based discussions.

Practice exercises

1 You have been asked by your superior to find the 'best' evidence that can be used to develop culturally sensitive maternal and child health services for Indigenous Australians. How would you find this 'best' evidence? Discuss various types of evidence that you could obtain.

2 What type of evidence would you need in your own profession? With colleagues from a different professional background, discuss what evidence would be most appropriate for your work and your clients.

Further reading and annotated **Websites** advise you of relevant works in the subject and allow you to conduct additional reading and learning that will be of interest.

Websites

http://methods.cochrane.org/qi/

This website is about the Cochrane Qualitative and Implementation Methods Group. It provides useful information about the use of qualitative research synthesis in evidence-based practice.

www.womenandhealthcarereform.ca/

This website provides useful discussions on evidence and women's health care. It argues that 'because women are not all the same, changes to the health care system may variously affect the health, well-being and work of particular groups of women. This means that when evidence is used by decision-makers in the development and implementation of health care reforms, women need to question what is being counted as evidence, whose perspective and experience is being counted, if the differing contexts of women's lives are being considered, and which women's needs are being included and excluded.'

Further reading

Aoun, S. M. & Kristjanson, L. J. (2005). Evidence in palliative care research: How should it be gathered? *Medical Journal of Australia*, 183(5), 264–6.

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Olsen, K., Young, R. A. & Schultz, I. Z. (2016). *Handbook of qualitative health research for evidence-based practice.* New York: Springer.

Tracy, S. J. (2019). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Newark, NJ: John Wiley & Sons.

A consolidated **Glossary** is located at the end of the book to provide quick reference to all the key terms listed throughout the text.

GLOSSARY

Aboriginal concept of health
Health does not just mean the physical well-being of the individual. It refers to the social, emotional, spiritual and cultural well-being of the whole community. This is a whole-of-life view and includes the cyclical concept of life-death-life.

Allocation bias
A type of selection bias that occurs when the process of allocating participants to groups leads to differences in the baseline characteristics of those groups.

Anonymity
The identity of a research participant is protected. The participant will not be identified by anyone outside the research project.

ANOVA
A form of analysis that compares three or more sets of values or scores to determine if there are statistically significant differences between them.

Apps
Pieces of software, usually built for mobile devices like smartphones and

Assessment bias
A form of bias that occurs if an investigator's assessment of a participant lacks objectivity. Subjective outcome measures are prone to exaggerate the effect of the intervention.

Autonomy
The capacity of an individual to make decisions that may impact their life. Those with limited autonomy must be protected in research.

Axial coding
The task of further evaluating the codes to