

Introducing Evidence-based Practice in Health Care

PRANEE LIAMPUTTONG

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

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

Introduction

“ Research and EBP complement one another, but it is important to understand how they differ. Research is about generating new knowledge, and EBP is about applying new knowledge to practice (Schmidt & Brown 2019, p. 22). ”

Evidence-based practice (EBP) has been practised in many health and social care disciplines, including medicine, physiotherapy, occupational therapy, rehabilitation, podiatry, nursing, public health and social work (Straus et al. 2018). The notion of using evidence as a foundation for decision-making in health care has its roots in Chinese medicine. During the reign of the Emperor Qianlong (1711–1799), an approach recognised as ‘*kaozheng* (practicing evidential research)’ was adopted in Confucian medical texts (Fink 2015, p. 5). Since the time of Hippocrates, health professionals have realised the importance of adopting knowledge to practice. However, the sources of knowledge were based on observation and ancient theory. In 1991, Gordon Guyatt and colleagues from McMaster University conceived the term ‘evidence-based medicine’ (EBM) to promote an approach to clinical decision-making which was not based on tradition, authority, or experience. They argued that ‘the medical community needed to stress the importance of using published research as the foundation for practice’ (in Portney 2020, p. 56). Although the work of Guyatt et al. was specifically invented for medical professions, the relevance of this approach has now been extensively accepted in other health care areas, under the words ‘evidence-based practice’.

In this chapter, I will introduce EBP and its concepts, followed by discussions regarding the source of knowledge that leads to evidence and EBP in health care.

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.

qualitative approach, the quantitative approach and the mixed methods research approach. Qualitative research relies on ‘qualitative and descriptive methods of data collection’ (Grinnell & Unrau 2018, p. 18). Data are presented in the form of words, and sometimes as diagrams or drawings, but not as numbers. The quantitative approach, on the other hand, ‘relies on quantification in collecting and analyzing data’ and ‘uses statistical analyses’ (Grinnell & Unrau 2018, p. 18). Data obtained in a quantitative study are presented in the form of numbers, not in the form of words, as is the case for the qualitative approach. The mixed methods research approach combines both qualitative and quantitative research in one research and thus offers both depth and breadth of inquiry. These three approaches will be discussed in detail in Chapter 2.

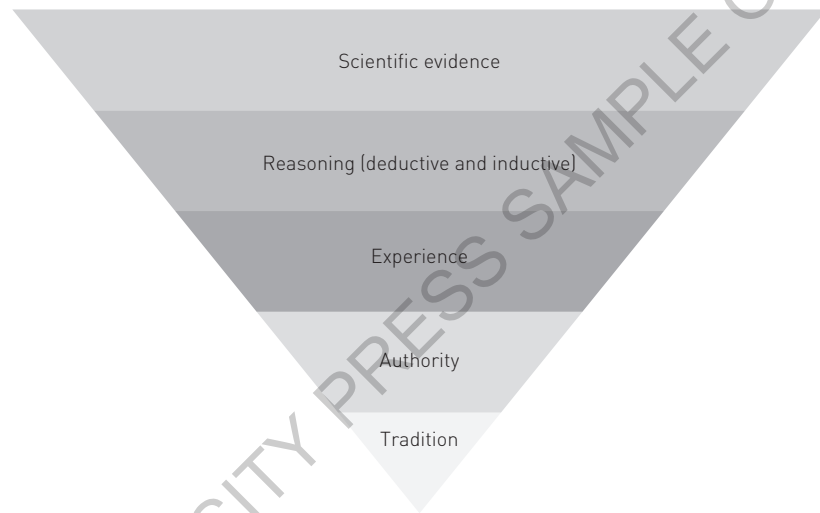


FIGURE 1.1 Ways of knowing

Source: Portney (2020, p. 56)

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).

Evidence and EBP

“The concept of evidence-based practice (EBP) represents the fundamental principle that the provision of quality care will depend on our ability to make choices that are based on the best evidence currently available (Portney 2020, p. 5).”

Evidence, according to Manuel and colleagues (2018, p. 230), is information that can be used to support and guide practices, programs and policies in health and social care in order to enhance the health and well-being of individuals, families and communities. For example, you might be interested in depression among young people and in the most effective way to assess their risk for suicide and to prevent it. Types of evidence that you may be interested in may include:

- perceptions and experiences of depression and suicide among young people
- factors that are related to the onset of depression in young people
- risk factors and protective factors that are relevant to depression and suicide among young people
- evidence-based methods that can be used to carry out an appropriate assessment of suicide risk
- strategies or interventions that can be used in practice
- prevention programs and policies that can have a positive impact on these health and social problems.

As you can see, there are several types of evidence that you can use to find answers to the questions about the health issue in which you are interested. Now it has to be asked: which type is the ‘best’ evidence that you can use, and how do you obtain this evidence? This depends on the questions you ask. Researchers and practitioners have debated whether there is a universal way to judge which evidence is the best (Altheide & Johnson 2011). Researchers and practitioners come from different disciplines and will have different perspectives on the types of evidence they consider useful or not useful for their research purposes and professional practices (Altheide & Johnson 2011; Manuel et al. 2018; Liamputtong 2019). What is seen as the best evidence by some researchers and practitioners may not be seen as such by others.

It is at this point that I wish to discuss the issue of **evidence-based practice**. The McMaster Group of Canadian physicians established the contemporary EBP paradigm in 1991. In their original work on EBM, Sackett and colleagues (1996, p. 71) describe it as ‘the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients’. This evidence can be related to prognostic factors, accuracy of diagnostic tests, or the safety and effectiveness of preventive strategies and therapies (Portney 2020).

There are four components of EBP (Sackett et al. 1996). These include:

- the client’s current clinical situation
- best relevant research evidence
- the client’s preferences and values
- the clinical expertise of the health practitioner (see Figure 1.2).

Evidence

In the context of EBP, evidence is what results from a systematic review and appraisal of all available literature relevant to a carefully designed question and protocol.

Evidence-based practice

A process that requires the practitioner to find empirical evidence about the effectiveness or efficacy of different treatment options and to determine the relevance of that evidence to a particular client’s situation.

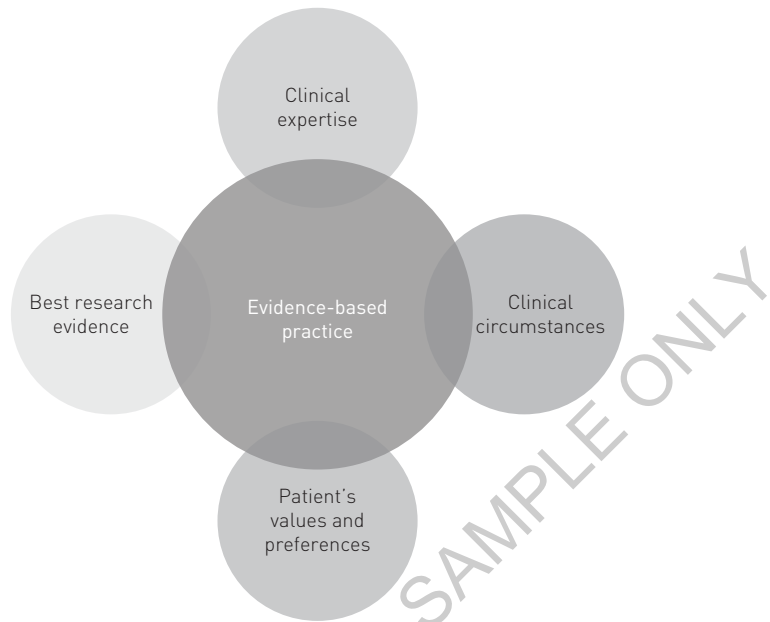


FIGURE 1.2 EBP in health care

Source: Haynes et al. (2002)

Health professionals need to embrace all elements of the process of EBP. However, the client's values and preferences are equally as important as evidence from research. Although research evidence plays a major role in the EBP process, it does not necessarily have preference over other elements (Drisko 2017). As Haynes et al. (2002, p. 38) argue, 'research alone is not an adequate guide to action'.

Thus, EBP refers to an approach to decision-making that merges scientific knowledge from research with other sources of information (Straus et al. 2018; Portney 2020). According to Mullen et al. (2018, p. 252), EBP in the area of health care refers to:

“the process that includes finding empirical evidence regarding the effectiveness and/or efficacy of various treatment options and then determining the relevance of those options to specific client(s). This information is then critically considered in making the final treatment plan.”

Fink (2015, p. 3) suggests that the best available evidence derives from 'an objective and reproducible study of the quality of existing research results'. Thus, health practitioners need skills in using research and other credible information sources in their practices.

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.

EBP and hierarchy of evidence

There are different levels of evidence within EBP. A common approach for evaluating evidence within the model of EBP is through a hierarchical ranking system (Manuel et al. 2018; Greenhalgh et al. 2020). Within this system, evidence is evaluated according to the research design that was used to generate it. For instance, when evaluating a health care intervention, a well-designed experiment, specifically a randomised controlled trial (RCT) or, better, the systematic review of a number of RCTs, is perceived as the gold standard (Aoun & Kristjanson 2005; Packer 2018; Liamputtong 2019; Greenhalgh et al. 2020; see also Chapters 13, 18).

However, the hierarchical ranking system may ignore some of the limitations of RCTs, and neglect observational studies (Aoun & Kristjanson 2005; Packer 2018; Long 2015; Manuel et al. 2018). For instance, confidence in the RCT is based on knowing that the research was correctly undertaken but, more often than not, published research using RCTs presents conflicting findings (see Chapter 13). Some researchers argue that a hierarchical approach is based solely on seeing whether the intervention works as intended, or on the measurement of the **efficacy** (or **effectiveness**) of intervention ‘with little attention to the appropriateness and feasibility of the interventions in the real practice world’ (Manuel et al. 2018, p. 239). More importantly, as Packer (2011, p. 37, original emphasis) argued, ‘the gold standard also prevents researchers from studying, let alone questioning, the forms of life in which people find themselves and in which things are found. People are *not* in fact independently existing entities. We exist together, in *shared* forms of life.’

Effectiveness/efficacy

A measure used to determine whether the treatment or intervention has an intended or expected outcome. In medicine, it refers to the ability of a treatment or intervention to reproduce a desired outcome under ideal circumstances.

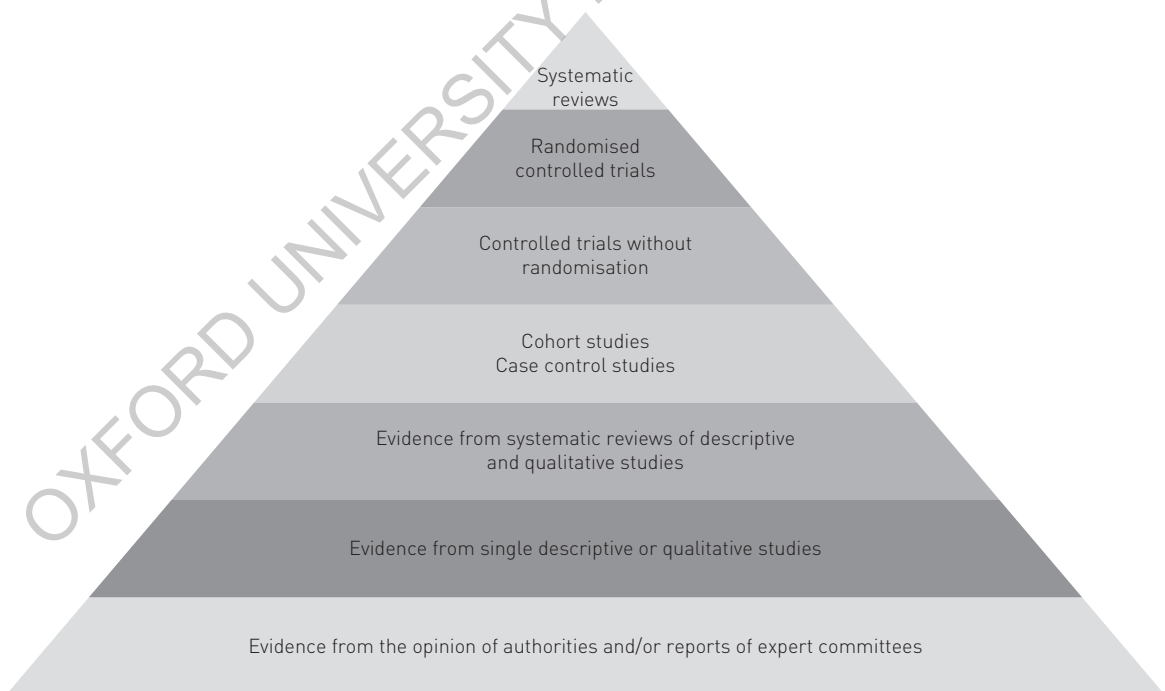


FIGURE 1.3 Hierarchy of evidence

Source: Long (2015, p. 324)

More importantly, within this hierarchical system, qualitative evidence is often placed at the bottom of the hierarchy (Grypdonck 2006; Savage 2006; Long 2015; Manuel et al. 2018; Liamputtong 2019). The contribution to EBP of findings from qualitative research is undervalued, and at worst discounted (Aoun & Kristjanson 2005; Grypdonck 2006; Denzin 2009, 2011; Altheide & Johnson 2011; Liamputtong 2019). Qualitative research, despite its increasing contributions to the evidence base of health and social care, is still underrepresented in some health care areas that place a high value on evidence from the hierarchical system (Johnson & Waterfield 2004; Long 2015; Liamputtong 2019). Sometimes, findings generated from qualitative studies are not seen as ‘true forms of evidence’ (Portney 2020, p. 64). This is in part, as Gibson and Martin (2003, p. 353) suggest, due to ‘mistaken attempts to evaluate qualitative studies according to the evidence-based hierarchy, where the status of qualitative research is not acknowledged’. Many qualitative researchers argue that this is flawed, as qualitative studies also employ rigorous methods of data collection and analysis (Johnson & Waterfield 2004; Annells 2005; Hammersley 2008; Denzin 2009, 2011; Houser 2015; Liamputtong 2019). Savage (2006, p. 383), for example, argues that **ethnography**, a qualitative research method, is essentially useful due to ‘the attention that it gives to context and its synthesis of findings from different methods’. More importantly, ethnography provides ‘a holistic way of exploring the relationship between the different kinds of evidence that underpin clinical practice’ (see also Altheide & Johnson 2011). Similarly, Houser (2015, p. 400) contends that phenomenological research offers a means for finding evidence of nursing practices which ‘support and enhance the ways patients respond to the challenges in their health care’. **Phenomenology** is valuable as it allows us to understand the ways in which patients react and respond to both everyday experiences and unique events.

Ethnography

A research method that focuses on the scientific study of the lived culture of groups of people, used to discover and describe individual social and cultural groups.

Phenomenology

A methodological approach that seeks to understand, describe and interpret human behaviour and the meaning that individuals make of their experiences.

It is argued that the hierarchical model of evidence is only one way of organising different types of evidence. It is important for health researchers and practitioners to know this, so that they can evaluate the quality of evidence that can be found with respect to a specific health issue (Schmidt & Brown 2019; Liamputtong 2019). And no doubt it can be very useful for some health practices, for example in therapeutic science. However, Manuel and colleagues (2018) believe that the decision on what evidence to adopt must be situated within the context of our research study. Researchers and practitioners need to consider the relevance and feasibility of evidence and whether the evidence accords with the values and preferences of the clients (Houser 2015). This is what I advocate in this chapter: that we need to consider different types of evidence, and that evidence can be derived from the findings of different types of research. This book will give readers an understanding of the different methods that researchers and practitioners can use or draw on in producing evidence: qualitative methods (see Part II), quantitative methods (see Part III) and mixed methods (see Part IV).

It is worth noting that EBP has emerged from the long-standing commitment of health practitioners to social research and science. But there has been a significant change in how research and practice are related. In the past, according to Mullen and colleagues (2018), research and practice were seen as separate activities and/or as the roles of two different professions. Research was undertaken to add to the knowledge base, and eventually drawn upon by practitioners as evidence on which to base their practice. Now these differences are blurred, and research and practice are often combined. In EBP, many of the practice questions resemble the essential parts of research questions: ‘We search for evidence—especially research evidence—to answer our practice questions using established research

criteria when the evidence comes from research studies, and we collect data on the processes and outcomes of our interventions' (Mullen et al. 2018, p. 266).

In EBP, practitioners need to be clear about what is known and not known about any health problem or health practice in order to establish what will be 'best' for their clients (Schmidt & Brown 2019; Mullen et al. 2018; Greenhalgh et al. 2020; Portney 2020). But all too often, we know little about the particular health problems of some population groups, or about treatment options that are not empirically based (Liamputtong 2019). Although practitioners may find research evidence in existing literature, Mullen and colleagues (2018) argue that there are still many health issues that remain unknown. Currently, EBP does not apply to many of the health issues of certain population groups, for example, certain ethnic minorities and indigenous groups, recent immigrants and refugees, gays and lesbians, rural communities, and people with uncommon or particularly challenging health problems. In her analysis of the impact of EBM on vulnerable or disadvantaged groups, Rogers (2004, p. 141) points out that it focuses on a narrow biomedical and individualistic model of health and neglects social and cultural factors that impact health. As such, individuals who have the greatest burden of ill health are left disenfranchised. Due to the lack of research relevant to them, these individuals have poor access to health care and treatments, and attention is deflected from actions that might have a significant influence on their health. Hernández-Marrero et al. (2018, p. 149) argue that as a result of 'evidence biased' medicine, some vulnerable people are excluded in research, and this can lead to poor quality of care (see also Shepherd 2016).

It is clear that there is a need for more research with different groups of people as part of the EBP process. Also, much of the EBP focus, in terms of both research and application, has been centred on a subset of health issues. Research is needed in other fields, in both health issues and practices. More importantly, depending on the research or practice question, practitioners may need evidence other than that which relates to the efficacy of interventions, to inform their practice (Aoun & Kristjanson 2005; Houser 2015; Manuel et al. 2018; Liamputtong 2019). Evidence that we use in EBP cannot and should not be based solely on the findings of RCTs. Rather, it should be derived from many sources (Hawker et al. 2002; Shaw 2011; Houser 2015; Liamputtong 2019; see also Chapter 10).

RESEARCH IN PRACTICE

It has been argued that some health topics or issues are not appropriate for an RCT. Fahy (2008, p. 2), for example, contends that most maternity care practices will never be found by RCTs. However, evidence for practice in midwifery is needed so that midwives will be able to help women 'to make the best decisions for themselves by taking the best available evidence into account'. Fahy also suggests that 'a more expansive definition of evidence and evidence-based practice' is needed. Additionally, there are many concerns regarding RCTs. For instance, you may be interested in knowing about the meaning and interpretation of body weight because there have been higher rates of diabetes or anorexia nervosa in your city, or you may need to know about the understanding of homelessness among poor families and how they deal with it, because you have noticed that there are increasing numbers of homeless young people in poorer areas of your city. The 'best' evidence for these issues will not be generated by RCTs but by qualitative research. These scenarios illustrate situations where you need to look for other types of evidence.

STOP AND THINK

- Considering what has been discussed above, what is your opinion regarding the level of evidence and evidence-based health care?

EBP and research**Systematic review**

A comprehensive identification and synthesis of the available literature on a specified topic, where literature is treated like data.

If you cannot find any available evidence in **systematic reviews** or other sources such as the relevant literature, evidence can be obtained by gaining knowledge through your own research. As Shaw (2011, p. 20) contends, ‘valid scientific knowledge’ can be generated from many means. In this book, I argue that evidence can be generated by both qualitative and quantitative research (see also Beck 2009; Schmidt & Brown 2019). No doubt, most health care providers will trust the so-called ‘hard’ evidence obtained through quantitative approaches such as surveys with closed-ended questions, clinical measurements and RCTs (see Chapters 9–13). As I have pointed out, the quantitative approach is seen as empirical science and as more systematic than qualitative research, so findings from this approach are regarded as more reliable. But I argue that evidence derived from the qualitative approach can help you to understand the issue and to use the findings in your practice. Qualitative research provides evidence that you may not be able to obtain from quantitative research or from a systematic review of quantitative research (Patton 2016; Olsen et al. 2016; Hannes & Bennett 2017; Manuel et al. 2018; Tracy 2019; Greenhalgh et al. 2020; Portney 2020). Indeed, many researchers have argued that qualitative research findings have much to offer EBP (Hawker et al. 2002; Grypdonck 2006; Jack 2006; Meadows-Oliver 2009; Houser 2015; Olsen et al. 2016; Hannes & Bennett 2017). As Sandelowski (2004, p. 1382) puts it, ‘Qualitative research is the best thing to be happening to evidence-based practice’.

RESEARCH IN PRACTICE

Within the emergence of EBP in health care, Grypdonck (2006) contends that qualitative research contributes greatly to the appropriateness of care. She argues that health practitioners need to have a good understanding of:

what it means to be ill, to live with an illness, to be subject to physical limitations, to see one’s intellectual capacities gradually diminish, or to be healed again, to rise from [near] death after a bone marrow transplant, leaving one’s sick life behind, to meet people who take care of you in a way that makes you feel really understood and really cared for.

In their work regarding the impact of HIV and AIDS on families, Seeley and colleagues (2008) point out that the quantitative part of their research, which involved more than 2000 participants, failed to provide a good understanding of some of the findings. It was only through the life histories of twenty-four families that they were able to explain the findings in a more meaningful way. Their study clearly points to the importance of qualitative evidence in health care and practice.

I argue that qualitative enquiry is an essential means of eliciting evidence from diverse individuals, population groups and contexts. In clinical encounters, Knight and Mattick (2006, p. 1084) say this clearly: ‘The inclusion of qualitative research within EBM brings

closer the link between individual patients' perspectives and "scientific" perspectives'. Long (2015) and Portney (2020) contend that we should not underestimate the contributions of qualitative research because data from qualitative enquiry can offer the perspective of the consumers/patients, which is a crucial part of EBP in health care. The findings from qualitative research can be used to enhance EBP by integrating the values and preferences of consumers/patients into the guides for health care practice (Houser 2015). Hannes and Bennett (2017, p. 243) observe that 'The experiences of patients are a rich source of evidence for practice and can increase our understanding of how individuals and communities perceive health, manage their own health, and make decisions related to health service usage'.

Houser (2015, p. 388) also suggests that qualitative research is especially valuable in EBP as it allows us to identify the needs, motives and preferences of the patients. It is 'helpful in describing the acceptability of an intervention. Interventions that require lifestyle adjustment, attitude changes, or behavioural alterations are particularly well suited to qualitative studies'. Although practitioners must use 'scientific evidence' in their evidence-based health care, they must also 'see a social or human problem through the eyes of the patient'. Indeed, qualitative enquiry not only offers an in-depth understanding about patients but also 'adds another dimension to quantitative evidence: one based on the human experience' (Houser 2015, p. 389). Practitioners may not be able to obtain knowledge from existing literature that can address these crucial issues of health and illness. Such knowledge can only be gained through the integration of research into their daily work. Surely, by gaining a better understanding of the lived experience of patients and clients, health practitioners will be able to provide more sensitive and appropriate care.

In its entire sense, EBP is about determining the meaningfulness, appropriateness, feasibility and effectiveness of interventions. Thus, qualitative and quantitative evidence are of 'equal importance in this endeavour' (Hannes & Bennett 2017, p. 230).

Recently, there has been more advocating for the use of the qualitative approach in evidence-based health care. According to Hoffman and colleagues (2017, p. 7), there is a growing appreciation of the value of qualitative research to EBP. This can be seen in the increase use of mixed-methods research in both empirical research and systematic reviews. In their response to a recent review of EBP, van der Marck and colleagues (2017, p. 2244) appeal for 'disruptive innovation' in EBP. They call for the inclusion of 'complementary research paradigms of complexity science, systems dynamics, and narrative, and qualitative approaches' which will allow health practitioners to have better understanding about 'the complexities of real-life clinical questions and deliver evidence that is more meaningful to daily practice'.

In relation to interventions in health care, qualitative research can contribute to many things:

- it allows health care providers to pinpoint the needs of people that they serve
- it helps health care providers to develop interventions which are more acceptable to their patients
- it helps health care providers to better understand the effect of an intervention from the patients' perspectives within their own social/cultural contexts
- it gives health care providers a more accurate understanding of the reasons for attrition, cessation of treatment, or lack of adherence to a treatment protocol.

However, there is still some distrust of qualitative research, mainly due to a perception that it is unable to produce useful and valid findings (Hammersley 2008; Torrance 2008, 2011; Houser 2015). This perception stems largely from insufficient understanding of the

Metasynthesis

A generic term that represents qualitative review approaches to previous qualitative studies in a field of interest.

philosophical framework for qualitative work, which focuses on meaning and experience, the social construction of reality, and the relationship between the researched and the researcher (Patton 2016).

Recently, there have been attempts to synthesise qualitative findings in a form of **metasynthesis**, because the synthesis provides stronger credibility than individual studies can offer within EBP (Thorne 2009; Houser 2015; Dawson 2019). Metasynthesis, according to Zuzelo (2012, p. 500), provides ‘a mechanism to help establish qualitative research as a viable source of evidence for EBP’. With the acceptance of metasynthesis of qualitative research in EBP, ‘the pursuit of “what works” in evidence-based practice can be enhanced by examining “what is at work” when individuals and communities experience interventions and report these experiences in their own words’ (Padgett 2012, p. 193; see also Chapter 17).

STOP AND THINK

- Should all EBP be based on an RCT or quantitative research approach only? Why?
- What situations do you think would benefit from a qualitative research approach to finding evidence for EBP in, for example, occupational therapy?

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

- 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.

- 3 As discussed in this chapter, systematic reviews and metasyntheses provide stronger evidence than other levels in EBP. Portney (2020, p. 65) says that ‘the content of reviews, however, is not always sufficiently detailed to provide applicable information for clinical decision-making. For example, reviews often lack specifics on patient characteristics, operational definitions about interventions, or adverse effects, which can vary across studies’. Thus, Portney argues that individual references may still need to be consulted to inform clinical decisions. What is your view about this? How do we obtain knowledge about individual references?

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.
- Denzin, N. K. (2009). The elephant in the living room: Or extending the conversation about the politics of evidence. *Qualitative Research*, 9(2), 139–60.
- Gibson, B. E. & Martin, D. K. (2003). Qualitative research and evidence-based physiotherapy practice. *Physiotherapy*, 89, 350–8.
- Grinnell, R. M. & Unrau, Y. A. (eds) (2018). *Social work research and evaluation: Foundations of evidence-based practice*, 11th edn. New York: Oxford University Press.
- Gryphonck, M. H. F. (2006). Qualitative health research in the era of evidence-based practice. *Qualitative Health Research*, 16(10), 1371–85.
- Hammell, K. W. & Carpenter, C. (2004). *Qualitative research in evidence-based rehabilitation*. Edinburgh: Churchill Livingstone.
- Mullen, E. J., Bellamy, J. L. & Bledsoe, S. E. (2018). Evidence-based practice. In R.M. Grinnell & Y.A. Unrau (eds), *Social work research and evaluation: Foundations of evidence-based practice*, 10th edn. New York: Oxford University Press, 200–17.
- 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.

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.’

http://en.wikipedia.org/wiki/Evidence-based_medicine

This website provides a good discussion on EBP and its limitations.

<https://pubmed.ncbi.nlm.nih.gov/11759429/>

This is an evidence-based nursing website that provides information about finding the best resources in nursing. It describes internet resources currently available to support evidence-based nursing practice, presents practical search methods for locating these resources, and suggests criteria for evaluating the ‘evidence’ available on the internet.

https://libguides.csu.edu.au/ebp/where_to_search

This website provides information about where to search for evidence. It is a good resource for searching for evidence.

References

- Aisenberg, E. (2008). Evidence-based practice in mental health care to ethnic minority communities: Has its practice fallen short of its evidence? *Social Work*, 53, 297–306.
- Altheide, D. L. & Johnson, J. M. (2011). Reflections on interpretive adequacy in qualitative research. In N.K. Denzin & Y.S. Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn. Thousand Oaks, CA: Sage, 581–94.
- Anells, M. (2005). A qualitative quandary: Alternative representation and meta-synthesis. *Journal of Clinical Nursing*, 14, 535–6.
- 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.
- Beck, C. T. (2009). Metasynthesis: A goldmine for evidence-based practice. *AORN Journal*, 90(5), 701–10.
- Dawson, A. (2019). Meta-synthesis of qualitative research. In P. Liamputtong (ed.), *Handbook of research methods in health social science*. Singapore: Springer, 785–804.
- Denzin, N. K. (2009). The elephant in the living room: Or extending the conversation about the politics of evidence. *Qualitative Research*, 9(2), 139–60.
- Denzin, N. K. (2011). The politics of evidence. In N.K. Denzin & Y.S. Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn. Thousand Oaks, CA: Sage, 645–57.
- Drisko, J. (2017). Active collaboration with clients: An underemphasized but vital part of evidence-based practice. *Social Work*, 62(2), 114–21.
- Fahy, K. (2008). Evidence-based midwifery and power/knowledge. *Women and Birth: Journal of the Australian College of Midwives*, 21, 1–2.
- Fink, A. (2015). Public health practice and the best available evidence. In A. Fink (ed.), *Evidence-based public health practice*. Thousand Oaks, CA: Sage, Ch. 1.
- Gibson, B. E. & Martin, D. K. (2003). Qualitative research and evidence-based physiotherapy practice. *Physiotherapy*, 89, 350–8.
- Greenhalgh, T. M., Bidewell, J., Crisp, E., Lambros, A. & Warland, J. (2020). *Understanding research methods for evidence-based practice in health*, 2nd edn. Brisbane: John Wiley & Sons.
- Grinnell, R. M. & Unrau, Y. A. (eds) (2018). *Social work research and evaluation: Foundations of evidence-based practice*, 11th edn. New York: Oxford University Press.
- Grinnell Jr, R. M., Unrau, Y. A. & Williams, M. (2014). Introduction. In R.M. Grinnell & Y.A. Unrau (eds), *Social work research and evaluation: Foundations of evidence-based practice*, 10th edn. New York: Oxford University Press, 1–29.
- Grypdonck, M. H. F. (2006). Qualitative health research in the era of evidence-based practice. *Qualitative Health Research*, 16(10), 1371–85.
- Guyatt, G. H. (1991). Evidence-based medicine. *ACP Journal Club*, 114(Supplement 2), A-16.
- Hammell, K. W. & Carpenter, C. (2004). *Qualitative research in evidence-based rehabilitation*. Edinburgh: Churchill Livingstone.
- Hammersley, M. (2008). The issue of quality in qualitative research. *International Journal of Research & Method in Education*, 30(3), 287–305.
- Hannes, K. & Bennett, S. (2017). Understanding evidence from qualitative research. In T. Hoffman, S. Bennett & C. Del Mar (eds), *Evidence-based practice across the health professions*, 3rd edn. Sydney: Elsevier Australia, 226–47.
- Hawker, S., Payne, S., Kerr, C., Hardey, M. & Powell, J. (2002). Appraising the evidence: Reviewing disparate data systematically. *Qualitative Health Research*, 12(9), 1284–99.
- Haynes, R., Devereaux, P. & Guyatt, G. (2002). Clinical expertise in the era of evidence-based medicine and patient choice. *Evidence-Based Medicine*, 7, 36–8.
- Hernández-Marrero, P., Martins Pereira, S., Araújo, J. & Sofia Carvalho, A. (2018). Ethical challenges of informed consent, decision-making capacity, and vulnerability in clinical dementia research. In P. Hernández-Marrero, S. Martins Pereira, J. Araújo & A. Sofia Carvalho (eds), *Ethics and integrity in health and life sciences research: Advances in research ethics and integrity*. London: Emerald Publishing, Vol. 4, 147–68.
- Hoffman, T., Bennett, S. & Del Mar, C. (2017). Introduction to evidence-based practice. In T. Hoffman, S. Bennett & C. Del Mar (eds), *Evidence-based practice across the health professions*, 3rd edn. Sydney: Elsevier Australia, 1–15.
- Houser, J. (2015). *Nursing research: Reading, using, and creating evidence*, 3rd edn. Sudbury, MA: Jones & Bartlett Learning.

- Jack S. M. (2006). Utility of qualitative research findings in evidence-based public health practice. *Public Health Nursing (Boston, Mass.)*, 23(3), 277–83.
- Johnson, R. & Waterfield, J. (2004). Making words count: The value of qualitative research. *Physiotherapy Research International*, 9(3), 121–31.
- Knight, L. V. & Mattick, K. (2006). ‘When I first came here, I thought medicine was black and white’: Making sense of medical students’ ways of knowing. *Social Science & Medicine*, 63, 1084–96.
- Liamputtong, P. (2019). *Handbook of research methods in health social sciences*. Singapore: Springer.
- Long, C. O. (2015). Other sources of evidence. In N.A. Schmidt & J.M. Brown (eds), *Evidence-based practice for nurses: Appraisal and application of research*, 3rd edn. Burlington, MA: Jones & Bartlett Learning, 320–40.
- Manuel, J., Fang, L., Bellamy, J. L. & Bledsoe, S. E. (2018). Evaluating existing evidence. In R.M. Grinnell & Y.A. Unrau (eds), *Social work research and evaluation: Foundations of evidence-based practice*, 11th edn. New York: Oxford University Press, 229–48.
- Meadows-Oliver, M. (2009). Does qualitative research have a place in evidence-based nursing practice? *Journal of Pediatric Health Care*, 23(5), 352–4.
- Mullen, E. J., Bellamy, J. L. & Bledsoe, S. E. (2018). Evidence-based practice. In R.M. Grinnell & Y.A. Unrau (eds), *Social work research and evaluation: Foundations of evidence-based practice*, 11th edn. New York: Oxford University Press, 200–17.
- Olsen, K., Young, R. A. & Schultz, I. Z. (2016). *Handbook of qualitative health research for evidence-based practice*. New York: Springer.
- Packer, M. (2011). *The science of qualitative research*. Cambridge: Cambridge University Press.
- Packer, M. (2018). *The science of qualitative research*, 2nd edn. Cambridge: Cambridge University Press.
- Padgett, D. K. (2012). *Qualitative and mixed methods in public health*. Thousand Oaks, CA: Sage.
- Patton, M. Q. (2016). *Qualitative research and evaluation methods*, 4th edn. Thousand Oaks, CA: Sage.
- Portney, L. G. (2020). *Foundations of clinical research: Applications to evidence-based practice*. Philadelphia: F.A. Davis.
- Rogers, W. A. (2004). Evidence-based medicine and justice: A framework for looking at the impact of EBM upon vulnerable or disadvantaged groups. *Journal of Medical Ethics*, 30(2), 141–5.
- Sackett, D. L., Rosenberg, W. M. C., Gray, J. A. M., Haynes, R. B. & Richardson, W. S. (1996). Evidence-based medicine: What it is and what it isn’t. *BMJ (Clinical Research Ed.)*, 312, 71–2.
- Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W. & Haynes, R. B. (2000). *Evidence-based medicine: How to practice and teach EBM*, 2nd edn. New York: Churchill Livingstone.
- Sandelowski, M. (2004). Using qualitative research. *Qualitative Health Research*, 14(10), 1366–86.
- Savage, J. (2006). Ethnographic evidence. *Journal of Research in Nursing*, 11(5), 383–93.
- Schmidt, N. A. & Brown, J. M. (2019). What is evidence-based practice? In N.A. Schmidt & J.M. Brown (eds), *Evidence-based practice for nurses: Appraisal and application of research*, 4th edn. Burlington, MA: Jones & Bartlett Learning, 3–66.
- Seeley, J., Biraro, S., Shafer, L. A., Nasirumbi, P., Foster, S., Whitworth, J. & Grosskurth, H. (2008). Using in-depth qualitative data to enhance our understanding of quantitative results regarding the impact of HIV and AIDS on households in rural Uganda. *Social Science & Medicine*, 67(10), 1434–46.
- Shaw, R. L. (2011). Identifying and synthesizing literature. In D. Harper & A.R. Thompson (eds), *Qualitative research methods in mental health and psychotherapy*. Chicago: Wiley-Blackwell, 9–22.
- Shepherd, V. (2016). Research involving adults lacking capacity to consent: The impact of research regulation on ‘evidence biased’ medicine. *BMC Medical Ethics*, 17(1), 55. doi:10.1186/s12910-016-0138-9.
- Straus, S. E., Glasziou, P., Richardson, W. S., Haynes, R. B., Pattani, R. & Veroniki, A. A. (2018). *Evidence-based medicine: How to practice and teach it*. London: Elsevier.
- Thorne, S. (2009). The role of qualitative research within an evidence-based context: Can metasynthesis be the answer? *International Journal of Nursing Studies*, 46(4), 569–75.
- Torrance, H. (2008). Building confidence in qualitative research: Engaging the demands of policy. *Qualitative Inquiry*, 14(4), 507–27.
- Torrance, H. (2011). Qualitative research, science, and government: Evidence, criteria, policy, and politics. In N.K. Denzin & Y.S. Lincoln (eds), *The Sage handbook of qualitative research*, 4th edn. Thousand Oaks, CA: Sage, 569–80.
- Tracy, S. J. (2019). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Newark, NJ: John Wiley & Sons.
- van der Marck, M. A., Melis, R. J. F. & Olde Rikkert, M. G. M. (2017). On evidence-based medicine. *Lancet*, 390(10109), 2244–5.
- Zuzelo, P. R. (2012). Evidence-based nursing and qualitative research: A partnership imperative for real-world practice. In P.L. Munhall (ed.), *Nursing research: A qualitative perspective*, 4th edn. Sudbury, MA: Jones & Bartlett, 481–500.