Chapter 1

A science-informed model of clinical psychology practice

It has never been a better time to train as a clinical psychologist for three reasons. First, there is an increasing response to the recognition of the unmet need in mental health which is resulting in an increase in the number of clinical psychology jobs. Second, clinical psychology is enjoying a privileged position in mental health care because of its ability to provide an evidence base for the services it offers (Newnham & Page, 2010). Thus, despite the expense incurred by the provision of psychological services, we can show that their effectiveness assures savings that offset those costs. Third, the profession is facing a crossroads because the global demand for psychological services far exceeds the capacity of clinical psychologists to meet it (Schoenwald, Hoagwood, Atkins, Evans, & Ringeisen, 2010). This is the exciting challenge facing the graduates of today's programmes. How will you shape clinical psychology?

Considering the first of these points, governments across the world are realizing the need to deal effectively with mental health. Within the United Kingdom, the response has been the development of an Improving Access to Psychological Therapies (IAPT; see iapt.nhs.uk/) programme. This initiative aims to deliver interventions for people with depression and anxiety disorders that have been approved by the National Institute for Health and Care Excellence (NICE). In the United States, the Affordable Care Act (ACA) aims to improve equitable access to an improved quality of mental health care. In Australia, the Better Outcomes in Mental Health Care (health.gov.au/internet/main/publishing.nsf/Content/mental-boimhc) programme improves community access to quality primary mental health care by providing Access to Allied Psychological Services which enables General Medical Practitioners to refer consumers to allied health professionals who deliver focused psychological strategies. These initiatives are not limited to Western nations, with China's first national mental health legislation being adopted by the Standing Committee of the National People's Congress with the law that took effect in 2013. The law will prompt the need for greater community mental health care. Thus, the desire being expressed internationally (and tailored to the specific contexts of each nation) is to increase the access to mental health services. This desire is leading to an increasing demand for mental health professionals who are able to provide the treatments required.

Second, there is a common theme across the international initiatives to increase the quantity of mental health care; namely a focus on quality. Funding agencies want to ensure that they receive value for money. Consequently, funding is often limited to treatments that have a strong evidence base. Private and public funders are looking to allocate scarce health care resources into areas where there is an assurance that the treatment is effective and efficient (McHugh & Barlow, 2010). The profession of clinical psychology has enjoyed a

privileged position as a result of these pressures because it has a long history of accountability (Lilienfeld, Ammirati, & David, 2012). Its professionals are trained in the critical skills required to evaluate the evidence and research methods to generate the data on both existing and new treatments (Pachana, Sofronoff, Scott, & Helmes, 2011). The status afforded to clinical psychologists, by virtue of their long history in demonstrating the accountability of their treatments, has meant that the profession as a whole benefits from the research base documenting the efficacy, effectiveness, and efficiency of psychological treatments (Barlow, 2010; McHugh & Barlow, 2010).

While these two reasons why it is great time to train as a clinical psychologist look backwards and rely on the actions of past clinical psychologists, the third reason looks forward to the future. We are at a juncture when clinical psychology will carve out the path that will affect the profession as it goes forward (Barkham, Hardy, & Mellor-Clark, 2010a). The decision facing the profession is, will science-informed practice inform the future practice of clinical psychology? The perception that psychology is scientific is not universal (Lilienfeld, 2012). Thus, will science continue to inform the future practice of clinical psychology (see Safran, Abreu, Ogilvie, & DeMaria, 2011a)? To contextualize this decision, we will take a brief digression into a discussion of the revisions of the psychiatric classification system.

Allen Frances chaired the committee responsible for the fourth revision of the American Psychiatric Association's diagnostic system: the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). After the publication of the fifth revision (i.e., the DSM-5) he wrote a book, *Saving Normal* (2013), in which he cogently critiqued the new taxonomy and the malign forces which he believed responsible for the errors. As a psychiatrist writing from retirement, there is a sense of his personal exclusion from the decision-making but there is another level on which the book can be read. Much of his invective is directed at the multinational pharmaceutical companies who, in his opinion, control the agenda and directly and indirectly influence the formation of the diagnostic categories and the uses to which they are put. However, what is clear is that Frances has seen (perhaps too late) the predicament that psychiatry has found itself in. In recent years the number of prescriptions for medications used to treat mental health conditions has increased to meet the rising demand. Since the number of psychiatrists has remained relatively static, general practitioners have taken over the role as the key provider of psychopharmacology. Psychiatrists have been relegated to small players in a big market and their voice, once pre-eminent, has become one among many. For example, the head of the Royal Australian and New Zealand College of Psychiatrists echoed the same sentiment in an interview (abc.net.au/pm/content/2014/s3987162.htm) where he noted that some groups in the community were increasingly more likely to seek advice from their GP rather than a psychiatrist. Thus, psychiatry is realizing that its pre-eminent position in mental health care has been eroded. As society has realized that the burden of mental health care is far larger than psychiatry can ever manage, it has sat by while other professions have stepped up to the task.

This cautionary tale provides clinical psychology with a window of opportunity. In the coming years the profession of clinical psychology will be settling itself down into the new mental health care environment. Clearly there are not enough clinical psychologists to meet the mental health care needs of the twenty-first century. Clearly, there will never be enough (Kazdin, 2011). The appropriately stringent and lengthy training of the profession will always be a limiting factor. Therefore, the exciting challenge for clinical psychologists is how to adapt themselves to this new environment. If the profession continues in the way it has

been operating, it risks losing its pre-eminent role, just as psychiatry has. The remainder of the book will outline one possible future, where we will argue that clinical psychology must be a science-informed practice. By continuing to develop, evaluate, and offer evidence-based treatments; by delivering treatments in a monitored error-correcting clinical practice (Scott & Lewis, 2014); by training other mental health professionals in evidence-based treatments; and by fostering skills that complement (rather than duplicate) those of our colleagues in other professions clinical psychologists will bring to a mental health team expertise that will ensure them a continuing strong future (Barlow, 2010).

These are exciting times and the profession of clinical psychology has a bright future ahead. We are confident, because psychologists know that the best predictor of future behaviour is past behaviour. If we consider the history of clinical psychology we can see that a science-informed approach to practice has served the profession well. Last century, Hans Eysenck (1952) threw down the gauntlet to clinical psychologists when he reviewed the 24 available studies and concluded provocatively that individuals in psychotherapy were no more likely to improve than those who did not receive treatment. Although the conclusion itself was questionable given the extant data (Lambert, 1976), the field responded assertively and effectively to these criticisms (e.g., Meltzoff & Kornreich, 1970). Perhaps the most effective response came from Smith, Glass, & Miller (1980). Using meta-analytic statistical techniques to review 475 studies, they provided *quantitative* support for the conclusion that psychotherapy was superior to both no-treatment and placebo control conditions (see also Andrews & Harvey, 1981; Prioleau, Murdock, & Brody, 1983). More recently, reviewers in the US, UK, and Australia have sought to take the next step and identify criteria for empirically supported treatments, thereby providing listings of treatments that are 'effective' for particular disorders (e.g., Andrews, Crino, Hunt, Lampe, & Page, 1999; Chambless & Hollon, 1998; Nathan & Gorman, 2007; Roth & Fonagy, 2004; Task Force on Promotion and Dissemination of Psychological Procedures, 1995). In parallel, other reviewers have collated evidence regarding the effective components of psychotherapy relationships (e.g., Norcross, 2000, 2002; Orlinsky, Grawe, & Parks, 1994; Orlinsky, Rønnestad, & Willutzki, 2004). Together, these two lines of research provide a strong response to Eysenck's criticism. While people continue to debate the relative merits and contributions of the psychotherapy relationship and the specifics of particular therapies (e.g., Norcross, 2000; Norcross & Wampold, 2011; Wampold, 2001), the conclusion that psychotherapy is better than no treatment, and better than a supportive caring relationship alone, is strongly supported.

Thus, Eysenck's provocative criticisms spurred a spirited and methodical response that allowed clinical psychology to clearly defend itself against general criticisms of ineffectiveness. In addition, the profession is able to identify, with increasing precision, the relational and specific therapeutic factors that mediate clinically meaningful change. Why was clinical psychology able to respond so effectively?

The scientist-practitioner model

Arguably, the manner and effectiveness of the response owes a debt to the origins of clinical psychology within the scientific discipline of psychology and to an early and sustained commitment to a scientist-practitioner model (Eysenck, 1949, 1950; Raimy, 1950; Shakow et al., 1947; Stewart, Stirman, & Chambless, 2012; Thorne, 1947; see Hayes, Barlow, & Nelson-Gray, 1999 and Pilgrim & Treacher, 1992 for historical reviews). From the establishment of the first clinical psychology clinic by Lightner Witmer, it was clear that science and

practice were strategically interwoven (Norcross & Karpiak, 2012). For instance Witmer (1907) wrote:

> The purpose of the clinical psychologist, as a contributor to science, is to discover the relation between cause and effect in applying the various pedagogical remedies to a child who is suffering from general or special retardation … For the methods of clinical psychology are necessarily invoked wherever the status of an individual mind is determined by observation and experiment, and pedagogical treatment applied to effect a change. (p. 9)

Although there has been much written about the scientist-practitioner model, the broad principles are that clinical psychologists, as scientist-practitioners, should be *consumers* of research findings, *evaluators* of their own interventions and programmes, and *producers* of new research who report these findings to the professional and scientific communities (Hayes et al., 1999). The commitment to an ideal of combining research and practice has infused the profession of clinical psychology to such a degree (e.g., Borkovec, 2004; Martin, 1989; McFall, 1991) that the response to Eysenck's scepticism (see also Peterson, 1968, 1976a, 1976b, 2004) was not an appeal to the authority of a psychotherapeutic guru, nor a rejection of its legitimacy followed by attempts to ignore it, but the profession produced and collated empirical data to refute the claim (Butler, Chapman, Forman, & Beck, 2006).

Despite the success of the scientist-practitioner model in shaping clinical psychology as a discipline committed to empiricism and accountability, advocates of the model have not been blind to its failure to achieve the ideal (Hayes et al., 1999; Nathan, 2000). Shakow et al. (1947) aimed to train individuals who could not only be a scientist and a practitioner, but could blend both roles in a seamless persona. They sought to achieve this goal by giving an equal weighting in training programmes to research and practice. However, ensuring the mere presence of these two equally weighted components did not by default produce an integrated scientific practice and did not win the hearts and minds of many graduates. In the words of Garfield, 'unfortunately, [psychologists in training] are not given an integrated model with which to identify, but are confronted instead by two apparently conflicting models – the scientific research model and the clinical practitioner model' (1966, p. 357; Peterson, 1991). More recently, there have been renewed efforts to provide a concrete instantiation of a scientific practice (Borkovec, 2004; Borkovec, Echemendia, Ragusea, & Ruiz, 2001; Scott & Lewis, 2014). Hayes and colleagues (1999) attributed the apparent lack of better science-practice integration to two factors: First, the 'almost universally acknowledged inadequacies of traditional research methodology to address issues important to practice', and second, the 'lack of a clear link between empiricism and professional success in the practice context' (p. 15). Our goal in the remainder of the book is not to address the first of these concerns (see Hayes et al., 1999a; Neufeldt & Nelson, 1998; Seligman, 1996a), but to speak to the second. Our goal is to articulate ways that a scientific clinical psychology can be practised.

The aim of this book

Our aim is to assist the student of clinical psychology to contemplate a scientific practice and to develop a mental model of what a scientist-practitioner actually *does* to blend state-of-the-science expertise with quality patient care. Our goal is not to describe a model of clinical practice (e.g., Asay, Lambert, Gregerson, & Goates, 2002; Borkovec, 2004; Edwards, 1987), nor to outline a broad conceptual framework for a scientist-practitioner (see Beutler & Clarkin, 1990; Beutler & Harwood, 2000; Beutler, Moliero, & Talebi, 2002; Fishman, 1999; Hershenberg, Drabick, & Vivian, 2012; Hoshmand & Polkinghorne, 1992; McHugh & Barlow, 2010; Nezu & Nezu, 1989; Schön, 1983; Spencer, Detrich, & Slocum,

2012; Stricker, 2002; Stricker & Trierweiler, 1995; Trierweiler & Stricker, 1998; Yates, 1995), or even to portray a scientifically grounded professional psychology (Peterson, 1968, 1997), since each of these has been effectively presented elsewhere. Our aim is to consider each of the core competencies that a trainee clinical psychologist will acquire with the question in mind, 'how would a scientist-practitioner think and act?' The value of the scientist-practitioner model as a sound basis for the professional identity and training of clinical psychologists lies in its emphasis on generalizable core competencies, rather than specific applications of these core competencies to each and every client problem or service setting (Shapiro, 2002). Accordingly, we will first describe our conceptual model of the core elements of science-informed practice. Then, in the remainder of the book, we will illustrate how this model allows individual practitioners to provide value for money in a competitive health care market indelibly shaped by the forces of accountability and cost-containment (see also Fishman, 2000; Kraus, Castonguay, Boswell, Nordberg, & Hayes, 2011; Woody, Detweiler-Bedell, Teachman, & O'Hearn, 2003).

A science-informed model of clinical psychology practice

The starting place of any action in clinical psychology practice is the client and his or her problems. Therefore, the discussion of a science-informed model needs to begin with the client. In addition, the meeting of client and therapist involves a relationship, so that at its heart the interaction is relational. The beginning of the relationship involves the presentation of the client's problems to the clinical psychologist. As shown in Figure 1.1, this information is conveyed to the clinician (depicted by the thin downward arrows) and some of it passes through the 'lens' of the clinical psychologist. This lens comprises the theoretical and empirical literature as well as the clinical (and non-clinical) experience and training. This lens serves to focus the information about the client. Continuing with the lens metaphor, not all the information passes through the lens (indicated by some arrows missing the lens) because clinicians will be limited by the level of current psychological knowledge, their theoretical orientation, and the extent of their experience. As with all metaphors, the notion of a lens filtering client data is limited in that it does not capture the dynamic nature of the interaction between client and clinician. The client is not analogous to a light source passively emitting illumination, but a client actively engages in an interactive dialogue with the clinician so that the information elicited is influenced by the clinician's responses, and the material the client proffers in turn influences how the clinician chooses to proceed. Thus, the interaction between client and clinician is a rich and dynamic dialogue, but while it has the potential to be a free-ranging and unconstrained discussion, the process has an 'error correcting' mechanism in that the information is focused by the clinician and channelled into diagnosis and a case formulation. The case formulation, described later, provides direction to the decisions that a clinical psychologist makes about treatment (indicated by the dotted arrows), which are then implemented and their outcomes measured, monitored, and evaluated. These processes involve feedback loops, so that information garnered at each stage feeds back to support or reject earlier hypotheses and decisions in a cycle of error correction.

Finally, there are processes associated with the public accountability of clinical practice. The results of treatment are fed forward by the clinical psychologist to modify the theoretical and empirical bases of practice. In addition, the results will be fed back to inform the person's clinical experience that will guide future clinical practice. Dissemination of

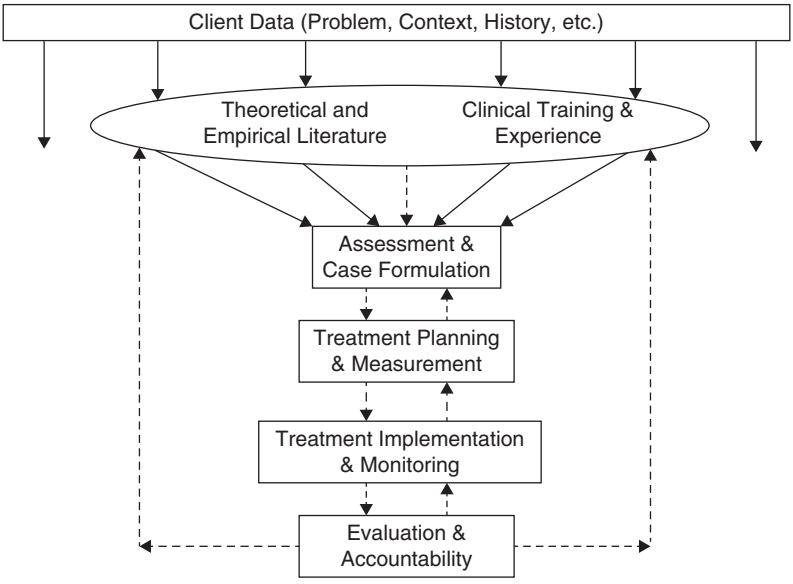

Figure 1.1 The process of linking client data to treatment decisions using case formulation.

evaluations of clinical practice outcomes serves not only to demonstrate that the practice is accountable, but also ensures the sustainability of clinical psychology. In the same way that logging forests without replanting new trees is unsustainable because it starves the timber industry of its raw material, if clinical psychology fails to replenish its resources (effective assessment and treatment), then it will be unsustainable. Other professions will step forward with potentially more efficient and effective alternatives to those which are presently available. Thus, we would agree with Miller (1969) that, 'the secrets of our trade need not be reserved for highly trained specialists. Psychological facts should be passed out freely to all who need and can use them in a practical and usable form so that what we know can be applied by ordinary people' (pp. 1070–1). We can 'give psychology away' in the sure knowledge that we are capable of generating new knowledge at least as fast as we can disseminate existing knowledge.

Stakeholders in the practice of clinical psychology

In the previous section we outlined how the foundations of science-informed practice rest on the clinical psychologist assuming three interrelated roles. Clinical psychologists are consumers of research, in that they draw on the existing theoretical and empirical literature, they are evaluators of their own practice, and they are producers of new practice-based research and knowledge. However, the style of research and type of research product varies according to the stakeholder. Three classes of stakeholders can be identified (see Figure 1.2). The first stakeholder is the *client* (included in this category are the client's family, friends, and supporters). The second class of stakeholder is the *clinician*, including the professional's immediate employment context (e.g., clinic, hospital, government department, etc.). The final class of stakeholder includes the broader *society* comprising individual members of society, government agencies, professional groups, academics, the private sector,

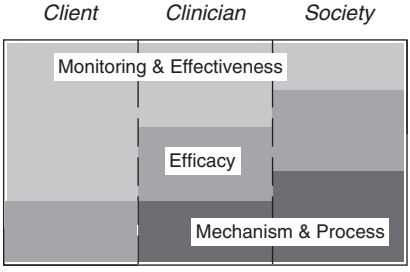

Figure 1.2 The relevance of three types of research activity in clinical psychology for three classes of stakeholder. The larger the area, the greater the relevance for a particular group.

etc. The type of research that each group will be interested in is displayed schematically in Figure 1.2

Clients have a legitimate interest in efficacy studies. Efficacy studies demonstrate in randomized controlled designs the superiority of a clinical procedure or set of procedures, presented in a replicable manner (e.g., using a treatment manual) over a control condition. The research has clearly defined inclusion and exclusion criteria, with an adequate sample size, and participants are evaluated by assessors blind to the experimental condition. Collating information across a group of efficacy studies permits identification of evidence-based or 'empirically supported treatments' (e.g., Andrews et al., 1999; Chambless & Hollon, 1998; Nathan & Gorman, 2007; Roth & Fonagy, 2004; Task Force on Promotion and Dissemination of Psychological Procedures, 1995). Clients may find this information useful in deciding which treatment has a good probability of success for carefully selected groups of individuals with problems like their own.

Clients will have an even greater interest in the effectiveness of a given treatment and ongoing monitoring of their own condition. That is, effectiveness research evaluates treatments as they are usually practised. In contrast to the treatment described in efficacy studies, clients who present for treatment may have multiple problems, may not meet all diagnostic criteria, and they will choose (rather than being randomly assigned) to receive a particular treatment whose duration is aimed to match their needs. The clinician may modify treatment based on a client's response. Within this class of research one can include studies that examine the generalizability of efficacious treatments to 'real world' settings (e.g., Peterson & Halstead, 1998), consumer surveys (e.g., Seligman 1995, 1996a, 1996b), as well as information on the outcomes of a specific clinic or clinician. Effectiveness can also be used broadly to refer to the measurement of change (e.g., pre- and post-treatment) within the client in question, the ongoing and idiographic monitoring of the client's problems (see Dyer, Hooke, & Page, 2014; Hawkins, Lambert, Vermeersch, Slade, & Tuttle, 2004; Howard, Moras, Brill, Martinovich, & Lutz, 1996; Lyons, Howard, O'Mahoney, & Lish, 1996; Newnham, Hooke, & Page, 2010a, 2010b; Sperry, Brill, Howard, & Grissom, 1996 for examples), and issues concerning service delivery. Arguably, as the data become more personal, they become more relevant to the particular client and those who may be involved in the client's care. Thus, in the left-hand box in Figure 1.2, proportionally more space is allocated to monitoring and effectiveness (light grey), than efficacy research (grey) to reflect the interests of an individual client.

Moving to the far right-hand side of Figure 1.2, the interests of society are depicted. In contrast to the individual client, society will have a general interest in knowledge about the effectiveness of treatments but will have no particular interest in monitoring the progress in treatment of a particular individual. Thus, the relevance of monitoring and effectiveness studies (light grey) is less for society in general than for the individual, indicated by the

smaller proportion of the right-hand rectangle devoted to it. Society will have a greater interest in knowing the results of efficacy studies, so that governments and investors can make rational planning and funding decisions and services can be efficiently and effectively managed. Additionally, society takes an interest in a research agenda that may have little interest to individual clients, namely the research on the mechanisms and processes of disorders and treatment (dark grey). Included within this category of research endeavour are investigations of descriptive psychopathology and the aetiological mechanisms that initially cause or maintain a set of client problems as well as those mechanisms involved in client change (e.g., O'Donohue & Krasner, 1995). The category also includes research into the process of psychotherapy (e.g., Norcross, 2000, 2002); that is, research on the relationship variables critical to client improvement.

Standing between the clients on the one hand and society on the other, is the clinical psychologist. Clinical psychologists share the interests of both the client (in the monitoring and measurement of each client's particular problems and the delivery of the most efficacious treatment) and society (in understanding the fundamental mechanisms involved in each problem a client may present with and knowing which treatments are efficacious for a particular problem, and the degree to which these treatments translate into practice). For example, for the present authors, when we manage our clinic's smoking cessation (Stritzke, Chong, & Ferguson, 2009) and anxiety disorder programmes (Andrews et al., 2003; Page, 2002a) we not only want to know that the programmes are empirically supported, that they are effective outside the centres where they were tested on carefully selected samples, but we need to be able to demonstrate that the outcomes of our clinicians running our programmes are comparable to those in the published literature. Likewise, while a single case study may not be publishable, it provides an excellent way for individual practitioners to demonstrate to themselves and to a client the degree of improvement (Fishman, 2000).

Drawing together the themes discussed (and portrayed in Figures 1.1 and 1.2), the scientific practice of clinical psychology exists in a social network that ripples outward from the individual client, with a research agenda that becomes more general, theoretical, and generalizable as the conceptual distance from the client increases. Thus, there is probably not one single science-informed model of clinical psychology, but an array of ways that science informs practice and vice versa. The knowledge generated by large-scale efficacy studies (e.g., Elkin et al., 1989) exists alongside the knowledge generated by an individual clinician tracking the Subjective Units of Discomfort (SUD) of a phobic progressing through an exposure hierarchy. Both can appropriately be considered the products of a scientific practice of clinical psychology. Acknowledgement of diversity in the type of research product across different stakeholders is not to imply that there are no boundaries to a scientific clinical psychology, just that it is broader than it is often characterized.

Presenting evidence to stakeholders

It is worth noting that specification of the different stakeholders helps to clarify what information needs to be presented to which groups and by whom. Individual clients will be interested in feedback about how they have performed on psychological tests relative to appropriate normative samples and about the rate and extent of progress, both referenced against their pre-treatment scores and relevant norms (see Crawford, Cayley, Lovibond, Wilson, & Hartley, 2011; Woody et al., 2003). Further, the results of therapy may be communicated to other stakeholders in ward rounds, clinic meetings, training workshops, and other clinical

settings (cf. Castonguay, 2011; Haynes, Lemsky, & Sexton-Radek, 1987; Mitchell, 2011). In contrast to the local presentation of individual client data, professional societies and funding bodies will seek information about the most cost-effective ways to treat specific disorders of all clients who present for treatment. They will require reliable answers, based on a body of research studies comprising good internal and external validity that point to answers that can be generalized to particular populations. Thus, an important skill for clinical psychologists is not only to be able to produce evidence, but to know how to generate and present research outcomes relevant to the target stakeholder.

One example of the targeted presentation of research evidence is the way that clinical psychology is responding to the increasing industrialization of health care. Health care costs began to rise dramatically during the 1980s and it became clear that both the private and public sectors needed to be more assertive in the management of health funds. Employee Assistance Programmes (EAPs) were one of the first responses, offering corporations targeted services of early identification and minimal, time-limited interventions followed, if necessary, by appropriate referral. In the US, managed (health) care organizations evolved with the development of Health Maintenance Organizations (HMOs; where individuals or companies contract an organization to provide all health services), Preferred Provider Organizations (PPOs; who reimburse a panel of providers on a fee-for-service basis, typically with some form of co-payment), and Individual Practice Association (IPAs; in which providers organize themselves to contract directly with companies to provide health services). Although the particular structure of health care varies markedly across different countries, all Western nations face the same problems of increasing costs of health care (compounded by a growing aged population) and share the same need of third-party payers (i.e., insurance companies and governments who pay the health bills) to rein in health care costs. Increasing costs have focused attention more than ever upon efficient and effective health care and thus, the need for clinical psychologists to be able to demonstrate that their assessment and treatment processes are not only effective, but they can be targeted, delivered in a timely manner, and offered in a definable and reproducible manner. Thus, in the past the rationale for a scientific-informed practice was promoted within the discipline by professional organizations (e.g., the American Psychological Association, British Psychological Society) and foresighted individuals (e.g., Thorne, 1947), but in recent times the rationale has become increasingly externally motivated, in the form of third-party payers who are demanding cost-effective health care. Whereas in the past the scientist-practitioner model could be seen as a luxury representing an ideal worthy of pursuit, in the present era of accountability it is a necessity ideally suited to demonstrate the value that can be returned for every health care dollar invested in clinical psychology services (Schoenwald et al., 2010). As consumers seek to purchase quality services at cheaper prices, there will be a market edge to those who are able to demonstrate that their products are both effective and economical.

In sum, science-informed clinical psychology does not have a single product to market, but it produces many different outputs relevant to diverse audiences (Castonguay, 2011). Clients will be interested in their personal well-being, whereas society will be interested in the broader issues of descriptive psychopathology, aetiological models of disorders, treatment processes and outcomes, as well as efficient and effective health care (Kazdin & Blase, 2011). The individual clinical psychologist requires the skills to collect and present data relevant to particular stakeholders. Not all clinical psychologists are employed in the same capacity and the stakeholders each person deals with are different, and therefore it is better to conceptualize the implementation of a science-informed model of clinical practice

as not being epitomized by a particular instantiation, but as a strategic commitment to a scientific approach at the core of clinical practice. Priority of strategy over procedure is essential, because the evidence base will always be incomplete. The core competencies of a scientist-practitioner are most needed when the evidence is equivocal or lacking (Newnham & Page, 2010; Shapiro, 2002). In the remaining chapters we outline ways that a person with a commitment to the application of science to clinical practice might approach the many tasks clinical psychologists engage in. The first of these activities will be the difficult task of developing a strong therapeutic relationship.