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Beyond evidence-based practice: Rethinking the relationship between research, theory and practice

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This chapter discusses:

- **How applied psychologists attempt to ground their practice in research.**
- **The history of the evidence-based practice movement.**
- **Problems with the scientist practitioner model**
- **Alternative conceptualisations of the link between research evidence and practice.**
- **Some of the problems with randomised controlled research trials.**
- **The social context of research.**
- **The need for a different approach, focusing on the views of participants and utilising a broader range of research methods.**

Introduction

One of the distinctive things about applied psychology is that its practitioners are engaged in intervening in the world in a variety of ways, providing: psychotherapy; health psychology programmes; educational support interventions and so on. However, on what basis are these interventions designed? How can we tell whether an intervention has 'worked'? How might our interventions be improved? The applied psychologist needs to be able to draw on theory, research and practice in order to address such questions but how do these three domains relate to each other? It is on this question that this chapter is focused.

A range of policy initiatives now explicitly stress the importance of basing professional practice on firm evidence, what has become known as 'evidence-based practice'. The notion of the applied psychologist as a scientist practitioner is one model of relating practice to evidence. However, such models present a number of dilemmas for the applied psychologist. If we only ever do what is deemed effective how do we develop innovative approaches? If 'absence of evidence is not evidence of ineffectiveness' (Department of Health, 2001, p.40) how should psychologists work when dealing with issues where there is no firm evidence base? How can knowledge of groups help us in deciding how to approach an individual case? Do practitioners really base what they do on the research literature? There are often tensions in this debate between practitioners and academic researchers, for example about what kind of knowledge counts as evidence.

In this chapter, we begin with a review of the history of the evidence-based practice movement before examining the scientist practitioner model and alternative approaches like the reflective practitioner. Then we consider some of the methodological problems faced in conducting randomised controlled trials in applied psychology, using trials of psychological therapy as an example. Of course, judgements about research evidence take place within a social and political context and so we investigate this in relation to the work of the National Institute for Health and Clinical Excellence (NICE) before looking at how the perspectives of the recipients of interventions have been neglected. We make a case for a more pluralistic approach to gathering evidence before discussing examples of applied psychologists making use of evidence.

The rise of the evidence-based practice movement

The phrase 'evidence-based practice' is now so commonly used it has become a cliché but it may surprise some readers how brief a history this concept has had. Originally the term "Evidence Based Medicine" was employed and the focus was on the individual "patient" (e.g. Sackett et al, 1996). However, increasingly the philosophy and methodology underpinning the approach have been applied to decisions on funding for treatments and in areas beyond clinical medicine.   Many commentators trace its emergence to the work of epidemiologist Professor Archie Cochrane in Cardiff in the 1970s. During the 1970s and 1980s, however, his ideas were taken up by others and, in 1992, the NHS set up the Cochrane Centre which aimed to develop systematic reviews of clinical trials. 1993 saw the emergence of an international Cochrane Collaboration and, in 1999 the UK's NICE was established. Similar aims were identified by the Social Science Research Unit based at the Institute of Education in London and, more directly in the Evidence for Policy and Practice Information and Co-ordinating Centre established in 2003.
For private health insurance companies, especially in the US, evidence-based practice provided a means of controlling their costs. For countries like the UK with a publicly-funded health service, evidence-based medicine also offers a way of controlling costs to the taxpayer. Bodies like NICE offer the possibility of providing a rational and transparent process for making decisions about interventions, one freed from quackery or the influence of lobby groups like the pharmaceutical industry. However, as we discuss later in the chapter, these decisions still occur within a particular socio-political context.

It would be a mistake to assume that, before these policy developments, practice was not informed by research. Indeed, the scientist practitioner model has been a dominant identity since the beginnings of applied psychology and so it is to this that we turn first.

The scientist practitioner model and its critics

This model was developed originally for clinical psychology graduate training programmes in the US at a conference in Boulder, Colorado in 1949 but it has become a dominant model both in other fields of applied psychology (Hagstrom, Fry, Cramblet & Tanner, 2007) and in other countries, including the UK. One of the motivations in developing the model was to train practitioners to apply the scientific method to understanding and aiding diagnosis and treatment although in the UK clinical psychology became involved in treatment much later than in the US (Pilgrim & Treacher, 1992). It was clear even at the time that this model was essentially a compromise position to prevent a split in the young profession between courses

which emphasised either the scientist or practitioner side of the model (Pilgrim & Treacher, 1992). Clinical health psychology emerged as a distinct sub-discipline later than clinical psychology, but Murray (2010) has suggested that it too follows the scientist-practitioner model. Even sixty years on there is a lively debate in clinical psychology about this model (e.g. Clegg, 1998; Lane & Corrie, 2006; John, 1998; Long & Hollin, 1997; and Milne & Paxton, 1998).

Does the scientist practitioner model accurately represent applied psychology? If by this we mean 'do practitioners conduct research which is published in peer-reviewed journals?' then the answer appears to be largely 'no'. For example, Norcross *et al.* (1992) noted that the modal number of publications for UK clinical psychologists was zero – a well-replicated finding over the years in the UK and US -- with eight per cent of clinical psychologists producing approximately half of published work although 76% had published at least once in their careers. A similar result has been found in the US (Norcross et al., 2005).

There are, of course, many valid reasons why applied psychologists may not be research active (Holttum & Goble, 2006) – many employers may prefer psychologists to be involved in direct interventions rather than research or consultancy and thus Kennedy and Llewelyn (2001) have suggested that the model represents 'an attitude to practice rather than a commitment to participation in the academic community' (p.77) whilst Milne (1999) differentiates between scientist practitioners and evidence-based practitioners. However, even here there are problems as few applied psychologists appear to read peer-reviewed research on a regular basis. For example, Milne *et al.* (1990) reported that only 20% of their sample of UK clinical psychologists had read an academic journal each week (although 45% did monthly); only 14% attended national scientific conferences; and only 16% thought published research had 'a lot' of influence on their work. Milne et al's (2000) more recent sample of UK psychological therapists had 'used guidelines and protocols on 56 per cent of occasions, had on average drawn on research, CPD and audit approximately half of the time, but had been only minimally influenced by research, CPD or audit' (p.8). It is, perhaps, not surprising that some commentators have argued that identifying oneself with the scientist practitioner model may serve the rhetorical function of claiming the authority of science whilst in practice research has much less impact (Pilgrim & Treacher, 1992).

One could resolve some of the problems with the scientist practitioner model by having a much broader and inclusive notion of 'science' and 'evidence', stepping away from simplistically modernist and naively realist views (Lane & Corrie, 2006). Larner (2001), advocating a critical practitioner model, has argued that 'the choice is not between psychological science and non-science, but between an exclusively logical-positivist and a critical science' (p.40).

In recent years, the scientist practitioner model has had competition from Schön's (1987) *reflective practitioner*. This approach was developed following studies where expert practitioners were identified by peers and then a consensual understanding developed of key elements of their practice. Interestingly, peers often focused on personal qualities such as wisdom, integrity and intuition. Whilst research-based knowledge was accessed during this process it was combined with knowledge of other cases which bore some similarity and with subjective, emotional perceptions about the particular therapeutic relationship or context (Clegg, 1998). Here then there is an emphasis on an integration of theory, research and practice at a more personal level and it also appears to draw on an active philosophy of learning which is consistent with previous work on philosophies of learning (e.g. Kolb *et al.*, 1974).

Figure 1 about here

Although in the US, the scientist practitioner model seems as strong as ever -- in clinical psychology at least (Norcross et al., 2005) -- there are signs in the UK that things may be changing as reflective practice has become an increasing influence (e.g. Stedmon & Dallos, 2009). For example, an examination in August 2011 of the programme descriptions on the website of the UK Clearing House for Postgraduate Courses in Clinical Psychology revealed that only five out of 30 programmes specifically noted that they followed the scientist practitioner model whereas twice that number mentioned both scientist practitioner and reflective practitioner models. In a similar vein some health psychology programmes in the UK align themselves with a reflective-scientist-practitioner approach (e.g. the University of Surrey). There are also challenges to the scientist-practitioner approach to health psychology from critical and community approaches (e.g. Murray, 2010). Within educational psychology the drive to incorporate evidence has been two-fold: the search for interventions that have proven efficacy and the need to assure quality of provision through the provision of outcome measures (Frederickson, 2002; Dunsmuir, 2009).

One of the differences between the applied scientist of old and current practitioners is that the evaluation of the quality of research evidence has become increasingly institutionalised. Bodies such as NICE now recommend interventions for particular diagnoses. Paradoxically, applied psychologists may now be discouraged from evaluating the quality of studies for themselves, instead taking a NICE recommendation as a proxy of quality. However, as we will see later in the chapter, this may be problematic. Bodies like NICE make certain assumptions about research quality, drawing on the work of the Cochrane Collaboration, viewing it in a hierarchical manner – see figure 2.

Figure 2 ABOUT HERE

Randomised controlled trials (RCTs) are at the top of this hierarchy. In these trials, research participants are allocated to different interventions – including a control group -- in a randomised fashion. However they suffer from a number of methodological problems and so the next section examines these in more detail, using RCTs of psychological therapies as an example.

The trouble with trials -- problems associated with the use of RCTs

A strong form of RCT is the double-blind procedure where neither the research participant nor the staff involved in their care should be able to tell what experimental condition they are in. This is because staff knowledge of the condition can introduce bias. However, participants in drug trials can often work out which condition they are in from the side effect profile (Moncrieff, in press) and it is possible that many participants in psychotherapy RCTs do too, introducing another form of bias. In a psychotherapy RCT the therapist certainly knows which condition the participant is in and thus there are no double blind RCTs of psychological therapy. In drugs research there is increasing use of the triple blind procedure, where the researcher does not know the condition, since even this has been shown to have an effect. There are no triple blind RCTs of psychological therapy.

Moncrieff (in press) notes that other common problems with RCTs include: biases in the selection of participants (e.g. research samples are highly selected); high

numbers of participants dropping out of a study over time (sometimes in quite high numbers); how findings and analyses are presented; and publication bias (i.e. positive findings are more likely both to be submitted for publication and published by journals). Kelly and Moloney (in press) note some more specific problems for psychotherapy RCTs including: the difficulty of achieving 'pure' randomisation; the impact of therapist allegiance effects (the well-replicated finding that therapists have better outcomes when giving a therapy with which they have an allegiance); the difficulties in achieving fidelity with a therapy; what kind of control group is selected (e.g. treatment as usual – a weak comparison – or a potentially powerful alternative therapy); and the length of follow-up. Guy et al (2011) point out that RCTs tend to be very expensive to run and thus this puts constraints on who can conduct trials (often large university-based collaborations). Davey et al (in press) note that many RCTs focus on symptomatic change in individuals rather than the second order change – change within the system (e.g. a family, group or organisation) – on which, for example, systemic family therapists focus in their practice.

Over twenty years ago, Stiles and Stiles (1989) critiqued the drug metaphor underlying psychotherapy RCTs -- the idea that an RCT can help determine the 'active ingredient' in a therapy in the same way as determining the active chemical in a drug. In psychotherapy RCTs the relational context in which therapeutic conversations take place is not considered. Moreover, there is a focus on comparing different 'brand name' therapies like cognitive behavioural therapy (CBT) or psychodynamic therapy. One could argue that many RCTs obscure research progress since they tend to focus on the relatively small differences between, say, CBT and supportive counselling for people with psychotic experiences, rather than examining the larger common factors shared between these different therapeutic approaches (Paley & Shapiro, 2002; Shapiro & Paley, 2002) but proponents argue that equivalence between therapies may be a methodological artefact (Tarrier et al., 2002). However, whichever is the case, there are still some quite fundamental questions which have not been fully addressed – for example are cognitive strategies the active ingredient in CBT? Longmore and Worrell (2007), in their review, argue that the cognitive components of CBT do not appear to add anything to the behavioural components and thus are not necessary components of CBT..

There are also problems of generalizability. RCTs tend to focus on the narrow issue of efficacy (whether an intervention 'works' in a highly controlled setting with a highly selected research population) rather than effectiveness (whether an intervention 'works' in the real world, making a real difference in a person's everyday life). In fact there are vastly more studies of efficacy conducted than of effectiveness (Cahill et al., 2010). Since RCTs are based on group means they tell us very little about individuals but, in practice, applied psychologists need to be able to work out what will help them in a particular situation. A related problem is the number of combinations of treatment that can be compared within an RCT. In routine clinical practice interventions are frequently combined but trials rarely evaluate more than two (Marks, 2009), and it is easy to see why. If one wished to evaluate 5 different techniques in combination, for example, 120 different combinations would be required. The issue of the clinical or practical significance of trial findings is an increasingly important topic – see the March 2010 issue of *Clinical Psychology: Science and Practice.* Roth (1999) has suggested the introduction of clinically meaningful analyses like the number needed to treat (NNT) criterion – that is, how many people would need to receive the experimental condition for one person to gain a benefit they would not have obtained from receiving the control condition. However, Shearer-Underhill and Marker's (2010) analysis of 100 randomly selected papers published in the APA's *Journal of Consulting and Clinical Psychology* between 2000-2008 revealed that only four reported this statistic. Nevertheless,

while analyses such as NNT are more helpful to clinicians making decisions about individuals than group means they do not resolve some of the fundamental limitations of RCTs.

The dependence of bodies like NICE on RCTs is thus problematic but, of course, bodies like these do not evaluate evidence in a social and political vacuum. Indeed as policymakers and public sector employers have increasingly sought to ensure that guidelines are followed by practitioners, judgements about evidence have become increasingly politicised and so it is to this issue that we turn next.

The social context of evidence-based practice: A NICE example

One of the problems with evidence-based policy-making is that the social context within which evidence gets produced can be obscured. Marks (2009) has argued that "In truth, evidence consists of negotiable, value-laden and contextually dependent items of information. The evidence (= knowledge) base in science, medicine and health care is not an accident, but the outcome of a heuristic set of "gates" or "filters"." (P.476). Research evidence does not just appear – researchers need to decide to research a particular topic and this will be dependent on what topics research funders are prepared to fund. Research funders may be influenced by issues other than the epidemiological importance of a problem. For example, in one of his Reith lectures Lord Martin Rees criticised the fact that health and pharmaceutical research expenditures were 'much, much higher' than the 'five trillion dollars a year' spent on research into energy which, he argued, was arguably a more pressing need because of climate change (Rees, 2010). This contrast is heightened because much pharmaceutical research is focused on products likely to be profitable and so, although malaria is a massive international problem, pharmaceutical companies were initially unwilling to develop cheap anti-malarial medication until extensive campaigning forced them to do otherwise (Crawford, 2007). Much health research is funded by charities and the ability of a charity to generate money may depend a lot on the emotional appeal of a particular issue.

A great deal of research is funded by governments. Governments have a range of priorities – for example, worldwide military spending in 2010 was $1.6 trillion (Stockholm International Peace Research Institute, 2011). Government funding will be related to policy priorities and because politicians tend to work on electoral timescales of 4-5 years, policy initiatives may move ahead of the research evidence. Thus, for example, the UK government spent £200m setting up new cognitive behavioural treatment services for people with a diagnosis of personality disorder who were also considered dangerous potential offenders (so-called DSPD) in advance of research demonstrating their efficacy. Subsequently, the researchers involved with the DSPD programme have noted that it 'has been less effective in managing those whom it was primarily targeting and may not have been cost-effective' (Tyrer et al., 2010, p.95).

NICE provides a good example of the social context of evidence-based practice. For a start, it doesn't choose the topics on which it will develop guidelines – these are decided by Ministers (though obviously with input from advisers)[1]. Moreover, the topics are 'conditions' and thus the process is based on a medical diagnostic framework even though the guidelines for many of the mental health problems

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[1] Limitations of space prohibit a fuller discussion of the way in which evidence is utilised by policy-makers – see Stevens (2011) for a fascinating account of one academic researcher's experience of being seconded to work in a UK government department.

specifically note that the reliability and validity of many of these diagnoses are contested (e.g. the guidelines on borderline personality disorder and depression). The Midlands Psychology Group (2010) note that the 2006 NICE guideline on Attention Deficit Hyperactivity Disorder (ADHD) includes the developers' response to a submission by the Critical Psychiatry Network:

> Thank you very much for your comprehensive and detailed critique of the concept, diagnosis, classification and treatment of ADHD and related categories. Unfortunately, we are unable to dismiss the diagnosis as we would be left without a guideline to undertake. (NICE, 2006, p.34)

Once a topic has been selected, NICE then sets up Guideline Development Groups (GDGs). Guy et al. (2011) has criticised the composition of these groups, noting that the membership of the GDGs for the 2004 guidelines for anxiety and the 2009 guidelines for depression and schizophrenia were composed of: 6.7% psychological therapists; 10.7% service users or carers; 33% representatives of the medical profession; and 36% staff from the National Collaborating Centre for Mental Health (NCCMH) led by a partnership between the Royal College of Psychiatrists and the British Psychological Society's Centre for Outcomes Research and Effectiveness. Winter (2010) notes that, of the psychological therapy professionals included on mental health-related GDGs, the 'majority were cognitive behavioural in their therapeutic orientation' (2010, p.6). He argues that allegiance effects are evident in the work of research reviewers like the GDGs. Citing examples of alleged bias in their work he comments:

> It is difficult not to conclude that such recommendations are based less on a balanced review of the evidence base than on the allegiances of members of the Guideline Development Group or political considerations, such as support of current National Health Service (NHS) policies and initiatives.
>
> Winter (2010, p.6)

Moreover, not all perspectives are given equal weight in GDG deliberations. Milewa reports, based on his interviews with NICE participants, that non-professional members 'were more likely to have their credibility or legitimacy questioned openly' (2006, p.3108). Indeed the two service user representatives on the self harm GDG resigned because they felt the group was unwilling to question aspects of assessment and treatment (Midlands Psychology Group, 2010; Pembroke, undated).

Reviews of the research evidence are based on the hierarchical framework described earlier. However, Milewa and Barry (2005) note that NICE committees take into account a wide variety of considerations. For example, the GDG for antisocial personality disorder, finding that there was little RCT evidence in the area, instead drew on research into offending behaviour programmes.

Once the guidelines have been agreed they are published in four different versions. Learmonth (2006) notes that there are important differences between these versions:

> The Quick Reference Guide and shortened Guidelines are essentially synopses of the full Guidelines, but with all caveats and ambiguities removed. The effect of this is to make them read as hugely more 'authoritative' statements of fact, whereas the full Guidelines allow for far more questioning of both process and outcome. (p.2).

The Department of Health then seeks to ensure, through managerial and policy directives, that only recommended interventions are utilised and NHS managers often simply carry this out, rather than refer to the full, and more nuanced, versions of the guidelines. Typically, for the mental health guidelines, only interventions with RCTs are recommended. Roth (1999) has warned of the dangers of going down the US path of identifying 'empirically supported therapies' because of the way this has been used to restrict practice, especially by managed-care organisations. In the NHS there has been more of an emphasis on the development of clinical guidelines which involve both evidence and professional opinion (e.g. Roth & Fonagy, 2004) but, increasingly room for discretion and for tailoring interventions for particular users of services has been removed.

Whose evidence? The need to include the perspectives of participants

It is noteworthy that the views of those who receive interventions are placed at the bottom of the Cochrane Collaboration's hierarchy of evidence. Indeed, Marks (2009) has argued that "In medicine and health care there is a large and increasing gap between what gets measured and what matters most to clients and patients" (P. 476). Perkins (2001), a mental health professional and mental health service user has noted that one of the problems with the way the outcomes of mental health interventions are usually measured is that they tend to focus only on the reduction of psychiatric symptoms. She argues that a narrow focus on symptoms alone is a professional perspective and that this may not be the only or even the most important criterion of success from a service user's point of view -- often they are more interested in issues relating to quality of life. She suggests that services need to systematically ascertain the goals of service users (as they define them) and accord them the status currently enjoyed by the views of professionals and she questions whether many interventions would look effective if outcome was measured by service users' scores on scales like Rogers *et al.*,'s (1997) measurement of empowerment. Rose et al (2006) concur, asking 'who decides what is evidence, or more precisely, whose versions of evidence are given priority?' (p.110). They argue that the evidence gathered in relation to interventions is contestable from the viewpoint of different stakeholders (e.g. service users and carers, professionals, policymakers etc) and that researchers thus need to incorporate multiple perspectives. They noted that service users often had important views that were at variance with those of professionals, citing, as an example Rose et al's (2003) study of service user perspectives on Electroconvulsive Therapy (ECT). This had found that service users gave much lower ratings of satisfaction for ECT compared with ratings collected in ECT trials and that about a third of those who had signed consent forms for ECT felt their consent had not been willingly given. Moreover, the measures of outcome were defined by what professionals considered important, not necessarily what service users did. The importance of attending to the views and experiences of service users is given additional emphasis by the recent focus in the UK on the importance of shared decision-making in relation to testing and interventions of various sorts (e.g. Coulter and Collins, 2011). This is a process in which clinicians and service users/patients work together to determine a course of action. While it is generally conceptualised as occurring in the context of a consultation it clearly entails a central role for the "consumer" of the intervention and thus has implications for research as well as good clinical practice. It is thus important in any study for applied psychologists to consider the perspectives of a range of stakeholders, especially those who receive our interventions.

A pluralistic approach to gathering evidence

So far we have argued that a reliance on RCTs, studies of efficacy rather than effectiveness, statistical rather than clinical or practical significance, and professional- rather than participant-derived views and measures of outcome is problematic. Cornish and Gillespie (2009) have argued that the traditional hierarchy of evidence, with meta-analyses and RCTs at the top, reflects the prioritisation of a particular set of interests. RCTs, despite their limitations, are helpful to policymakers and purchasers of healthcare. They are less helpful, as we have seen, to practitioners making decisions about particular clients and to those wishing to understand the views of service users or the role of social and cultural factors in health and illness. There is a need both for researchers and independent gatekeepers like NICE to adopt a more pluralistic approach to evidence and a number of suggestions have been made in the literature. Indeed, in a report on evidence-based practice Marks (2002) concluded, amongst other things, that it was necessary to "broaden the epistemological approach and evidence-base, and create more inclusive methods for synthesis of evidence" (P. 45). Hoshmand and Polkinghorne (1992) have talked of the need for new forms of knowledge and enquiry -- a 'knowledge of practice' (p.60) and, indeed, practice-based research has become increasingly popular as have effectiveness studies (e.g. Cahill et al., 2010). Roth (1999) has noted that much psychotherapy research continues to focus on comparisons between 'brand name' therapies and he has called for the further development of pan-theoretical research focusing on factors like the importance of the therapeutic alliance and the skilfullness with which interventions are implemented (see Norcross & Goldfried, 2005; and Prochaska & Norcross, 2009 for introductions to this kind of approach).

A number of commentators have argued for a greater role for qualitative research in applied psychology. For example, within the realm of psychotherapy, qualitative methods can provide an insight into change processes (Elliott, 2012; McLeod, 2011) or how people's engagement with services changes across time (McKenna & Todd, 1997) or how theoretical propositions are enacted in therapy (Roy-Chowdhury, 2003). There are some challenges, however. For example, a range of interventions are not based on modernist realist premises. Here, however, new forms of evaluation like the *Most Significant Change* technique[2] (Dart & Davies, 2003) can be useful. In this approach a range of stakeholders identify key domains within which change is desired from an intervention programme and there is then a consensual search for specific stories identifying change within these domains. This has proven to be a popular method for evaluating a variety of programmes, particular in community development as it explicitly includes a range of stakeholders and is sensitive to social impacts.

There is a danger though in leaving evaluation just up to researchers and bodies like NICE. Practitioners too have a role both in consuming research (see Falzon et al., 2010 for an example of how practitioners can search the evidence base themselves) and also in evaluating their own work. Many organisations employing applied psychologists may gather data useful for evaluation but, as practitioners, we have an ethical duty to evaluate our own practice in a manner consistent with our approach. Here single case designs can be helpful but 'quick and dirty' approaches can also be enlightening and some practitioners have conducted simple audits of their work (e.g. Holmes, 2003). A quantitative approach can be useful for evaluating change over time but this need not be dependent on a modernist realist epistemology. For

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[2] We are indebted to Angela Byrne for alerting us to this technique.

example, within mental health settings, simple ecologically valid scaling measures can be used which are not dependent on psychiatric diagnostic categories. For example in Shapiro's Personal Questionnaire technique (Shapiro, 1961) the client is asked to describe, in their own words, a particular problematic experience or 'complaint' (or 'symptom' within a diagnostic framework). Each complaint is then given a simple rating scale and so the client can be asked to give a rating over the course of an intervention (e.g. Barkham et al., 1989). A similar approach is adopted within solution-focused work, where scaling questions can be used to evaluate progress towards desired goals, confidence in maintaining progress and so on (e.g. George et al., 1999). These can complement anecdotal observations of the practitioner where 'very concrete stories are provided from multiple sources and for a period spanning weeks or months' (Kazdin, 2006, p.47).

Box 1 about here

Conclusion

One of the important issues which appears to get lost in the debate about evidence-based practice is the reason why we need to gather evidence on our interventions. Rather than fetishize 'evidence' we see the major issue here as about *accountability*. Applied psychologists need to be accountable to a wide variety of stakeholders (including the recipients of their services) for what they do and so we need to be able to justify and give a theoretically-reasoned rationale for why we have used one intervention rather than another. If we keep this notion in mind it means that we need to move beyond narrow modernist conceptions of science in evaluating our work.

In evaluating our theories we also need to draw on ethical principles and criteria to orient us to what count as better theories and practices. Some have argued that we need to debate the values that underpin much research and have called for 'ethics before effectiveness' (Bracken & Thomas, 2000, p.22). The American social constructionist psychologist Ken Gergen has suggested that we need to focus more on the *usefulness* of our theories (Misra, 1993) and Cornish & Gillespie (2009) have proposed a pragmatic approach within health psychology. Of course, we also need to examine other ways of commissioning research and increasingly researchers are looking at partnerships with users of services rather than only with the traditional commissioners and purchasers of services (e.g. Faulkner, 2012; Faulkner & Thomas, 2002; Lindow, 2001; Patel, 1999). We have argued here that we need to move away from simplistic conceptions of evidence-based practice and to seek a more dynamic and reflective conceptualisation of the relationship between theory, research and practice. This entails not only developing real-world criteria for evaluating research evidence but also different ways of going about the research enterprise itself, embracing a pluralistic approach to the selection of methodologies and the kinds of evidence gathered. Only then are we likely to find not just a more effective relationship between theory, research and practice, but also a more ethical one.

Discussion questions

1. What is 'evidence-based practice' and what are its implications for applied psychology?

2. What kinds of evidence could psychologists gather apart from that found in randomised controlled trials?

3. As well as effectiveness, what additional factors might psychologists need to bear in mind in making judgements about the appropriateness of particular interventions? How might they go about investigating these factors?

4. What other stakeholders should be considered in carrying out research in applied psychology and how might they be involved?

Further reading

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Clegg, J. (1998). *Critical Issues in Clinical Practice.* London: Sage. **A critical examination of different approaches to thinking about theory, research and practice. Written by a clinical psychologist but easily applicable to other areas of applied psychology.**

Marks, D.F., Murray, M.P., Evans, B. & Estacio, E.V. (2011). *Health Psychology: Theory, Research and Practice* (Third edition). London: Sage.
An introductory level text to health psychology but with good discussions of epistemology, evidence-based practice and critical approaches.

Roth, A. & Fonagy, P. (2006). *What Works for Whom? A Critical Review of Psychotherapy Research.* Second revised edition. London: Guilford Press. **A thorough overview of psychotherapy research but also includes a sophisticated model outlining how practitioners might draw on evidence in exercising their professional judgement – written by two clinical psychologists but, again applicable to other areas.**

Sackett, D.L., Richardson, W.S., Rosenberg, W. & Haynes, R.B. (1997). *Evidence-Based Medicine: How to Practice and Teach EBM.* London: Churchill Livingstone. **The classic text on EBM. Written very much from a medical perspective but has lots that will be of interest to any clinician, such as information about Number Needed to Treat.**

Schön, D.A. (1987). *Educating the Reflective Practitioner.* San Francisco: Jossey Bass. **A good introduction to the reflective practitioner model.**

Web resources

A useful website on evidence-based practice can be found at:
http://www.medicine.ox.ac.uk/bandolier/

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Box 1

**An example of the use of evidence in practice: Using of CBT with a pupil in danger of exclusion from school**

Kevin is a 14year old boy in secondary school, nearing the end of Year 9. He has struggled to accept school rules throughout the current year and the advent of GCSE subject choice has brought the issues regarding 'rules' to the fore. Despite parental commitment to the school and a focus on academic success within the family, Kevin sees the solution to his current unhappiness as a change of school. At times when this has not been supported by parents or school, Kevin has withdrawn his cooperation in both settings and his challenging behaviour has resulted in a number of fixed term exclusions.

Kevin was raised as a priority concern during consultation with the educational psychologist working with the school. At a joint school and family meeting Kevin's parents reported their incomprehension regarding the change in Kevin's behaviour over the past year, the constant arguments and his apparent unreasonable resistance to all school rules. A period of direct involvement was agreed and CBT was proposed as the intervention most suited to bringing about a change in Kevin's relationships with adults at home and in school. CBT had been used with a number of pupils in the school following a review of its effectiveness (Pugh, 2010). A number of factors indicated that it might be an appropriate intervention here. For example, it was important for any intervention to be short term and CBT offered this. Moreover, it seemed to be important for Kevin to have an opportunity to identify links between his thoughts, feelings and behaviour so that he could then develop alternative strategies and so avoid further exclusions from school and CBT appeared to offer this.

Over a period of seven weeks, Kevin met with the educational psychologists on five occasions and together they explored his perception of how decisions were made regarding expectations of behaviour and his role in the process. It transpired that Kevin saw all adults as having the freedom to make choices whereas he saw them withholding a similar right from children. He saw this control by adults as insulting to his developing maturity and thus tended to rebel against rules. The sessions with Kevin focused on inviting him to notice rules across society and not just in school. For example, he was encouraged to take note of the rules governing the behaviour of respected role models in the community and the media. He also identified the personal rules he would apply if given the opportunity. He also examined the long term consequences of taking an oppositional approach to rules in both school and home.

Part of the awareness that governed change in Kevin's approach was the realisation that both at home and in school, all activities included both choices and rules (either self or other imposed). Moreover, an important element of freedom was the ability to choose to abide by certain rules. Of course, not all rules are of equal status and Kevin began to identify those which were negotiable and those that needed to be adhered to for practical and pragmatic reasons. Now in year 10, Kevin has moved to the upper area of the school and is engaged in his GCSE studies. He continues to work on negotiating his choices with parents and school but has accommodated to the notion of negotiation rather than resistance as an indicator of maturity and respect.

Figure 1

Practice

Reflection/Theorising

Reflection/Theorising

Practice
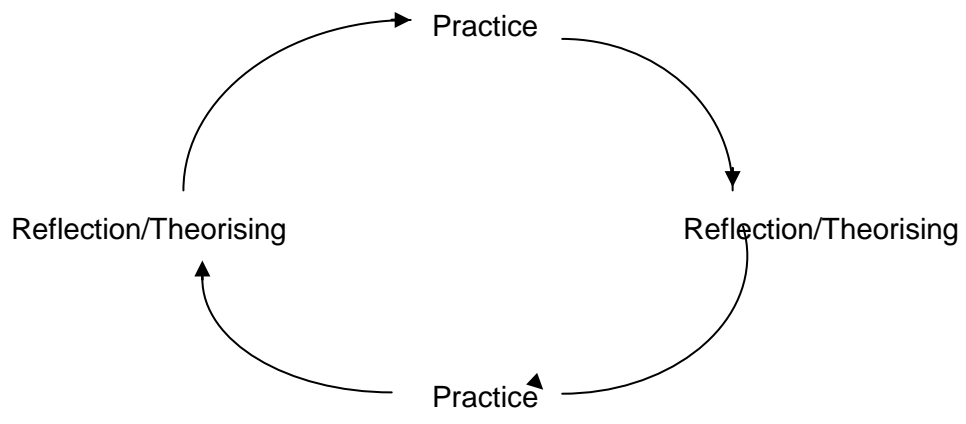
Figure 2

Type I evidence: at least one good systematic review and at least one randomised controlled trial.
Type II evidence: at least one good randomised controlled trial.
Type III evidence: at least one well-designed intervention study without randomisation.
Type IV evidence: at least one well-designed observational study.
Type V evidence: expert opinion, including the opinion of service users and carers.

(DoH, 1999, p.6)