

Renewing the scientist-practitioner model

CLINICAL psychology, like the Society, is 100 years old. Throughout its life, clinical psychology has claimed a distinctive identity as a healthcare profession grounded in the science of psychology. But how well does that claim serve the profession, and how might it be strengthened as clinical psychology enters its second century?

The scientist-practitioner

Clinical psychology trainers and textbooks invariably talk about the scientist-practitioner model as key to the values, competencies and contributions of the profession. The origins of the model are usually traced to the Boulder Conference on Graduate Education in Clinical Psychology in 1949 (Committee on Training in Clinical Psychology, 1947; Raimy, 1950; see also Benjamin & Baker, 2000). This conference developed a model of education and training rather than a model of professional practice. Simply put, it called for clinical psychologists to be trained both as scientists and as practitioners. But it gave relatively little consideration to the actual integration of science and practice in everyday clinical work.

Modern-day trainees and practising clinicians often express reservations about this model. They cite a divide between research and practice: much research is seen as inapplicable to clinical practice.



Last year, at the Centenary Conference in Glasgow, **DAVID SHAPIRO** delivered the annual M.B. Shapiro Lecture in his father's honour.

When working as Research and Development Director for an NHS Trust, I noted members of other professions finding the scientist-practitioner label precious and elitist, and its advocates aloof from the day-to-day realities of multi-professional service delivery.

Research evidence seems to confirm such doubts. For example, in studies of psychological treatments for mental health problems – a field of central concern to clinical psychology that remains a focus of lively controversy (Wampold, 2001) – the more selective the patient inclusion criteria, the greater the apparent efficacy of the treatment (Westen & Morrison, 2001). This suggests that research findings may be an unrealistic and over-optimistic guide to the benefits that evidence-based treatments can bring to everyday NHS care.

Clinical psychology as an applied science

In the years after the Boulder conference, writers began to address the matter of integrating science and practice more directly. For British psychology and the Society, Monte Shapiro was the most significant of these (Morley, 2000). In 1984 the Society's Division of Clinical Psychology established the annual M.B. Shapiro Lecture in his name. In his variant of the scientist-practitioner model, he wrote of clinical psychology as an applied science (Shapiro, 1967). This was a model not of education and training to prepare people to become clinical psychologists, but of the discipline itself:

The essential function of the clinical psychologist...must be to make available to the NHS the contribution of the science of psychology. (Shapiro, 1967, p.1039)

The model was of a clinician working scientifically. The applied scientist was to use validated methods of assessment or treatment where these existed. Where they did not, the clinician was to apply scientific principles of observation, hypothesis generation and hypothesis testing to the individual patient. The model also embraced research directed at improving the efficiency of methods of assessment and modification, and at increasing understanding of the dysfunctions bringing patients into the clinic. Shapiro saw the psychologist as primarily a scientist, with the duty to ensure that public money was spent on procedures justified by the current state of knowledge. Psychologists also had a duty to pursue ideas derived from their science to develop new procedures and investigate the nature of psychological dysfunctions. The examples given by Shapiro related only to adults with mental health problems, but the principles are transferable to all health domains.

In the inaugural M.B. Shapiro Lecture (Shapiro, 1985) my father advocated discarding the idea of clinical psychology as an applied science. He now considered there were insufficient well-validated methods of assessment or treatment for these to form the mainstay of the discipline. He therefore emphasised more strongly than before the value of applying the findings and methods of psychology to understanding clinical problems. He also highlighted the use of scientific method in every aspect of practical work. Although critical of his earlier approach, Shapiro's later version may be seen as an intensification, rather than as a recantation, of its central message. As before, the clinician must work scientifically, but this is now defined exclusively in terms of

WEBLINKS

Health Care Team Effectiveness project:

org-studies.abs.aston.ac.uk/Research/

Health_Care_Team_Effectiveness.htm

David A. Shapiro: www.shapiro.co.uk

Psychological Therapies Research Centre,

University of Leeds: www.psyc.leeds.ac.uk/ptrc

Treatment choice in psychological therapies and

counselling: [www.doh.gov.uk/mentalhealth/](http://www.doh.gov.uk/mentalhealth/treatmentguideline/treatment.pdf)

treatmentguideline/treatment.pdf

strategy, rather than relying upon (previously validated) procedure.

Evidence and guidelines

But does Shapiro's (1985) pessimistic evaluation of available evidence still stand today? Several workgroups have employed formal evidential criteria to draw up lists of empirically supported treatments (Chambless & Ollendick, 2001). Here in the UK, the Society's Centre for Outcomes Research and Effectiveness led the development of a Department of Health evidence-based clinical practice guideline on treatment choice in psychological therapies and counselling (Department of Health, 2001 – see weblinks). This was based on a systematic review of existing research evidence, expert consensus methods, and user consultation. The resulting draft guideline was then subjected to external scientific review alongside the evidence review and summary of recommendations. The strength of recommendations was graded in relation to the best-quality available evidence.

The guideline's strongest recommendations, directly based on evidence from meta-analyses of randomised controlled trials, included the following:

- Psychological therapy is effective in treating post-traumatic stress disorder (PTSD), with best evidence for cognitive-behavioural therapies (CBT).

- Depression may be treated effectively with psychological therapy, with best evidence for CBT and interpersonal therapy (IPT), and some evidence for other structured therapies including short-term dynamic therapy.
- Anxiety disorders with marked symptomatic anxiety are likely to benefit from CBT.
- Bulimia nervosa can be treated with psychological therapy, with best evidence for IPT and CBT.
- Routine debriefing shortly after a traumatic event is unlikely to help prevent PTSD and is not recommended.

This approach is not without its critics (Chambless & Ollendick, 2001); further research is required to evaluate their objections definitively. For example, the extent to which the findings of efficacy trials generalise to effectiveness in everyday clinical practice can only be determined by studies of the dissemination and implementation of evidence-based treatments (Nathan *et al.*, 2000). However, the evidence considerably surpasses anything available to Shapiro (1985) when he wrote of the dearth of well-validated methods on which to base applied science practice.

Thus we have a stronger evidence base for psychological intervention than was available in 1984. The logic of the practice

guideline is also an advance – it offers recommendations whose strength reflects the grade of evidence upon which each is based. This is a significant advance over the more 'all-or-none' judgments about scientific validation to which we were previously limited, which led to wholesale and possibly premature rejection of methods whose evidence base was considered suboptimal.

However, Monte Shapiro's priority of strategy over procedure remains important. The evidence base will always be incomplete, and its application to many clinical situations uncertain. The most compelling need for scientist-practitioner skills arises when the evidence is equivocal or lacking; well-established treatments can be cost-effectively delivered by expert therapists, who need not be scientist-practitioners.

The scientist-practitioner in context

Today's scientist-practitioner need not be restricted to direct clinical work. An ever-increasing range of psychological methods, findings and principles is available on which to base strategic contributions to health care. For example, organisational psychology research has identified factors conducive to effective teamworking in the NHS (Borrill *et al.*, 2001). Such findings have far-reaching implications for the delivery and organisation of health care. For example, I was invited to advise a Department of Health's Workforce Action Team on their implications for the training of community mental health team staff.

However, in the multi-professional context of present-day health care, it is important for each discipline to balance pride in its own contribution with respect for, and willingness to learn from, those of others. Specifically in relation to the scientist-practitioner model, other disciplines have developed their own distinctive contributions to the development of the evidence base for clinical practice. For example, the methodology of clinical trials (Friedman *et al.*, 1998) differs substantially from that of experimental psychology. Thus, clinical psychology cannot claim a monopoly over scientific competence.

Renewing the model

What is required to renew the scientist-practitioner model? At the broadest, most strategic level, we must devote explicit attention to integrating science with practice both conceptually and

operationally. This entails research that is based in clinically realistic settings, rather than requiring subsequent evaluation of its generalisability to such settings. It also entails making central to everyday clinical psychology practice Monte Shapiro's emphasis on thinking and acting scientifically.

To translate such strategic objectives into practical delivery of quality care will require us to identify and promote in our training a number of core competencies of the scientist-practitioner. This at a time when the demand for clinical psychology across the spectrum of health care is growing apace. For example, the government's National Service Frameworks identify needs for psychological contributions to care. A key challenge is to enlarge the workforce of qualified clinical psychologists without diluting their quality and distinctiveness.

The core competencies required to renew the scientist-practitioner model include those shown in the box above. Others might wish to add to or modify this list. But the key point is this: If the scientist-practitioner model is to form a sound basis for the professional identity of clinical psychologists, then such generalisable, core competencies will be more important to the preparation given by professional training than will be their specific application to each and every client group or service setting.

Implementing the model in the research clinic

Clinical psychologists in today's NHS work under great pressure. Despite the emphasis on clinical governance, the system of steps and procedures adopted by the NHS to ensure that patients receive the highest possible quality of care, clinical psychologists find precious little scope to make the distinctive scientist-practitioner contributions that might further that objective. The recent separation of research and development funding from patient care budgets has made it even harder to develop the practice-based evidence required to improve the quality and effectiveness of care.

One promising way of overcoming this problem is through collaboration between NHS psychology services and clinical psychology academics to establish research clinics. Exactly how these are established will depend on local circumstances and resources, including the interests, skills and aspirations of the clinicians and academics involved. For example, the Psychological

CORE COMPETENCIES

- Delivering assessment and intervention procedures in accordance with protocols.
- Accessing and integrating scientific findings to inform healthcare decisions.
- Framing and testing hypotheses that inform healthcare decisions.
- Building and maintaining effective teamwork with other healthcare professions that supports the delivery of scientist-practitioner contributions.
- Research-based training and support to other health professions in the delivery of psychological care.
- Contributing to practice-based research and development to improve the quality and effectiveness of psychological aspects of health care.

Therapies Research Centre at the University of Leeds hosts a cognitive therapy of depression research clinic staffed by psychologists from the Leeds Community and Mental Health Services NHS Trust on one-day-per-week secondment. Patients receive high-quality NHS care and clinicians enjoy continuing professional development through being trained and supervised by clinical academics. They also contribute to research based in the clinic. This clinic team is a vibrant embodiment of the scientist-practitioner model. Research outputs have included a recent analysis of client factors predicting outcome of cognitive therapy (Hardy *et al.*, 2001).

Summary and conclusions

Monte Shapiro's call to integrate science with practice both conceptually and operationally remains key to renewing the

scientist-practitioner model – a scientific approach should inform all the work of clinical psychologists. In addition, high-quality research is required in clinically realistic settings, with practice-based evidence complementing evidence-based practice. Renewing the scientist-practitioner model also requires close engagement with the organisational and policy contexts in which clinical psychologists make their contribution to health care. The training of clinical psychologists should prioritise the development of generalisable, core competencies required by scientist-practitioners in the new century.

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