Teaching evidence-based practice in mental health

Implementation of the evidence-based paradigm in mental health practice is an idea of enormous merit but, as we all know, an idea's merit does not guarantee its acceptance. Indeed, it is precisely the core virtues of the evidence-based paradigm (ie, questioning of unfounded beliefs, rigorous scrutiny of methodology, critical appraisal of proposed treatments) that may elicit a less than enthusiastic welcome from mental health students and practitioners. The introduction of an evidence-based approach to a mental health training programme must therefore anticipate the factors likely to reduce its acceptance.

In recent years, we introduced a course in evidence-based mental health practice to a postgraduate training programme of mental health practitioners. This experience exposed us to various issues that intrigued us, and although our course was developed for psychiatry residents, we believe that the issues we identified are generic and relevant across mental health disciplines and training programmes.

We have been heartened to encounter, among the psychiatry residents, considerable openness and interest about the ideas and practice of evidence-based mental health. Perhaps the increased emphasis upon evidence-based practices adopted by medical schools and various undergraduate health training programmes has helped to prepare the soil for the germination of these ideas. We have, however, also encountered ambivalence. We believe the residents' ambivalence mirrors a widespread uncertainty about evidence-based practice that pervades the mental health field. In this article we discuss themes that recurred in our discussions with the psychiatry residents—themes that are broadly relevant to mental health practitioners, whether students, seasoned practitioners, or academics.

Residents were concerned that an emphasis on evidence may be too narrow and unfeeling. They wondered whether the evidence-based approach could be overly focused on quantitative data, ignoring the human context of mental health problems. They were wary of being drawn into a detached, number crunching, dehumanising style of practice. Consequently, we found it important to position the teaching of evidence-based mental health within a human context, and we often began our teaching from the perspective of an individual human problem. In our course, we asked all residents to identify a clinical problem currently facing them (often focused upon a person in their treatment) and asked them to undertake a search of the literature and decide on a course of action integrating research and clinical information. The use of such problem based learning approaches roots the material in a real life clinical context and shows that sophisticated evidence-based practice is humanistic. Pedagogical wisdom also recommends use of the “teachable moment”—that is, availing new knowledge to the learner at a time when the information is immediately needed (and likely to be retained).

Residents expressed concern that they received messages from clinical settings and supervisors that were often at odds with the evidence-based paradigm, emphasising clinical lore

over research evidence as a guide to practice. Consequently, exposure to our course helped to create cognitive dissonance. It is problematic that, when in a state of cognitive dissonance, one is apt to disqualify the information source that delivers fewer reassuring certainties (in this case, the evidence-based practice course). We therefore explicitly discussed the practical integration of evidence-based and traditional clinical approaches. We stressed that: (1) residents will need to establish a *modus vivendi* for the paradigms of the academic and clinical settings; (2) there are legitimate arguments for the role of intuitive problem solving in clinical practice¹; and (3) it was never the intention of the evidence-based “movement” to entirely supplant the intuitive and experience-based clinical paradigm.² Several years ago, we formulated a theoretical schema to address this task of epistemological integration,³ one which draws a distinction between *phronesis* (clinical judgment in a particular case) and *techne* (knowledge of the general laws governing types of disorders):

“The evidence-based paradigm would alter the emphasis on these two modes of thinking in psychiatry: too much weight has been placed on phronesis, too little on techne. This is not to say that phronesis should be replaced by techne. To argue that more effective psychiatric practice would result from better utilisation of its empirical base does not imply that clinical judgement should be replaced. Rather, there needs to be a better balance between the two modes of problem solving.”

We also addressed this concern by attempting to ensure that other instructors in the residency programme taught their sections of the curriculum within the evidence-based paradigm. Our course immediately preceded core instruction in clinical syndromes and provided a foundation in critical appraisal that could then be applied to their subsequent seminars and lectures. We asked our fellow instructors to be receptive to the critical questions we encouraged the residents to pose. Over the longer term, it will be important to provide instruction in evidence-based practice for mental health practitioners in the form of continuing professional development. As clinical supervisors come to share the basic tenets of this approach, they will be in a position to reinforce the course material in a powerful way.

Some residents felt intimidated by the breadth of material associated with research design and statistical methodology. Often, they had received only cursory instruction in these areas before entering the residency programme and the concepts were quite foreign.

We responded to this worry by setting realistic goals for what could be learnt; we did not want to set up a failure experience likely to alienate these future practitioners from the whole endeavour of integrating reliable evidence into their practice. We made it explicit that most residents will not become researchers or methodologists, and instead sought to help them become *informed consumers of evidence*. Our aims were modest; residents should be able to sift through the torrent of data they will receive and distinguish the best from the

worst evidence. As one of our instructors was wont to say, "the goal is to install a crap detector." We identified the range of concepts to be covered. This served to focus teaching efforts on the domain of concepts truly necessary to be an informed consumer of evidence; we sought a basic familiarity with statistical and methodological concepts, not the capacity to apply them to research design. In our course, basic concepts included:

- Classification of studies and publications and assessment of levels of evidence
- The hypothesis testing/falsificationist model of research
- Randomisation
- Control groups
- Blinding
- The use of statistical tests
- Statistical power and how it can be determined
- Study design
- Justification of conclusions.

Justification of conclusions was emphasised because many competently designed studies in mental health draw conclusions that exaggerate or mis-state the findings, underemphasise negative results, or apply faulty logic.⁴

We clearly specified the required skill set. Three skills were delineated as necessary for evidence-based practice. Firstly, one must be able to search for empirical studies and reviews. This demands the ability to clearly state the question of interest and to effectively access the research literature. Comfort with internet based searching of databases is essential in the current context: the aim is not to produce computer enthusiasts, but to ensure sufficient facility with search procedures for the technology to be "transparent" to the process of seeking knowledge. Secondly, one must be able to critically read studies for design adequacy and logical interpretation of findings. This skill rests not only upon knowledge of methodological and statistical issues but also more basically upon the adoption of a sceptical attitude towards research findings and clinical generalisations. It takes some effort to overcome the students' tendency to be so impressed by the "scientific" style of journal articles as to attribute a sort of infallibility to assertions made in this form. Furthermore, psychiatry residents must learn to avoid the seductive trap of confusing the trappings of scientific practice (physiological measures, sophisticated technology) with its true defining characteristics (rigorous research design and logically interpreted findings). We have had to stress the point that a carefully designed and logically interpreted study of treatment outcome for existential therapy is more scientific than a poorly designed and overinterpreted study of cerebral atrophy in schizophrenia. Thirdly, one must be able to decide whether the literature supports a particular treatment approach. This involves reasoning out the application of the research data to the clinical problem and committing to *believing the evidence*, even when it contradicts a cherished theory or practice. Again, there is a question of adopting an epistemological attitude, rejecting dogmatism and scientism in favour of the flexible commitment to falsifiable theories that is the *sine qua non* of scientific thinking. The resident must develop a sense of humility, a realisation that our hold on truth is partial, tentative, and open to revision.

An evident source of concern for the residents was the challenge to their previously held beliefs and commitments. To require that all beliefs be held in a tentative way and be subject to revision can threaten one's sense of established expertise and even of professional identity. We found it helpful to openly discuss the issue of professional identity and the problems raised by the evidence-based paradigm. Such discussions helped to highlight the advantages of moving from an authoritative, infallible position to one of limited and revisable knowledge, acknowledged as such to the patient. For example, several residents raised the objection that patients are reassured ("develop hope") by receiving a confident and definitive depiction of their disorder and its treatment. They wondered whether it could be in the patients' best interests to be presented with certainty and unwavering optimism, even if not fully accurate. Our response to this was to point out that conveying confidence which goes beyond the evidence gives rise to unrealistic hope (the act of a charlatan, not an expert); that patients who do not recover after this definitive explanation may well feel betrayed, angry, and despairing; and that mental health professionals have an ethical obligation to communicate honestly with their patients.

To help to counterbalance the discomfort that residents experienced in acknowledging the limits of knowledge, we found it important to engage them in the practice of successful evidence-based problem solving, thus fostering a sense of competence. We intentionally began the teaching with content that could be quickly incorporated and mastered. Similarly, our evaluation of the residents was accomplished in a manner that helped to demonstrate the skills and knowledge that they had acquired during the course using an ecologically valid approach. Thus, the residents had an opportunity to appreciate the value of their developing ability to evaluate evidence and communicate essential information to their patients in an accurate and respectful manner.

Summary

Teaching evidence-based practice in mental health involves more than passing along a body of knowledge. We have attempted to convey that there are fundamental issues of professional value, identity, and philosophical approach that can, if not addressed, subvert the teaching process. Before mental health trainees and practitioners can learn evidence-based practice, they must see this form of practice as valuable and feasible. As mental health training programmes gain experience, they will become more adept at conveying to their students the rewards of evidence-based practice.

DAN BILSKER, PhD

ELLIOT M GOLDNER, MD

Department of Psychiatry,
University of British Columbia,
Canada

1 Tanenbaum SJ. What physicians know. *N Engl J Med* 1993;**329**:1268-71.

2 Evidence-based medicine working group. Evidence-based medicine. A new approach to teaching the practice of medicine. *JAMA* 1992;**268**:2420-5.

3 Goldner EM, Bilsker D. Evidence-based psychiatry. *Can J Psychiatry* 1995;**40**:97-101.

4 Bilsker D. From evidence to conclusions in psychiatric research. *Can J Psychiatry* 1996;**41**:227-32.