FROM THE DESK OF THE EDITOR

Therapists Awake! The Challenge of Evidence-Based Occupational Therapy

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We have entered a new therapy-world called the world of evidence-based practice.

That this world is new is, in its own way, rather odd. On one level of thinking, one would hope that we have engaged in evidence-based practice for a long time already, if not forever. Surely, none of us engages in therapy strategies and techniques that have no evidence for being effective, do we? Well, yes and no. Yes, we do engage in therapy based on evidence, but that evidence has not been derived primarily from systematic scientific reviews of published research. Instead, we have tended to rely on other forms of evidence, such as the voice of an expert, uncritical acceptance of the findings of a single published study or a published manual, and reliance on our own previous experiences and the experiences of those around us. In the new therapy-world of evidence-based practice, these forms of evidence are not being negated; however, in the new world, we are being asked to wake up to the world of health care research and to use findings from this world of research in addition to more familiar sources of evidence to guide treatment planning for our clients. We believe that an urgent need exists for all of us in occupational therapy to develop and use the skills necessary to plan treatment strategies for individual clients based on what is supported by evidence (Rothstein, 2001).

Five offerings in this issue of The American Journal of Occupational Therapy (AJOT) focus on the topic of evidence-based practice. In this editorial, we provide a brief historical overview of the concepts and principles of evidence-based practice as developed in the past decade, both in health care broadly and within occupational therapy. Additionally, three feature articles in this issue of the journal contribute to our knowledge of evidence-based practice: Two articles by Trombly and Ma constitute Parts I and II of a systematic review of articles that address the efficacy of occupational therapy treatment for persons with stroke, and a third by Dysart and Tomlin reports a survey of occupational therapists’ attitudes toward the concept of evidence-based practice. Finally, the Evidence-Based Practice Forum offers an article by Lieberman and Scheer in which the American Occupational Therapy Association (AOTA) Evidence-Based Practice Literature Review Project is described. The project represents a comprehensive effort by the Association to develop systematic reviews and to disseminate research evidence related to particular areas of practice to members of the profession.

The expansion of evidence-based practice lately has become something of a revolution in the health care literature. The title of a recent article in a medical journal illustrates the point: “What Is Evidence-Based Medicine: The Revolution Coming Your Way” (Manser, 2001). Stevens, Abrams, Braxier, Fitzpatrick, and Lilford (2001) traced the development of this revolution from the focus in the early 1970s on health technology assessment and Cochrane’s (1972) critique of the effectiveness and efficiency of health services research. The current methods used in evidence-based medicine (EBM) have their roots in clinical epidemiology and evolved in conjunction with the development of...
the Cochrane Collaboration’s seminal efforts to provide systematic summaries of existing research evidence on specific health care topics (see http://hiru.mcmaster.ca/cochrane/).

Sackett, Rosenberg, Gray, Haynes, and Richardson (1996) defined EBM as “the conscientious, explicit, judicious use of current best evidence in making decisions about the care of individual patients.” (p. 71) This term has been transformed over the past decade into the broader concepts of evidence-based practice and, recently, to evidence-based health care. Evidence-based health care, as used by Muir-Gray (1997) and others, refers to the application of evidence-based principles in patient groups and populations as well as in individual patients. There has been a proliferation of information and specialty literature in EBM, ranging from evidence-based mental health to evidence-based urology. Geyman (2000) observed that the results of evidence-based practice reviews in clinical medicine are being used to establish practice guidelines, develop pathways for care, and identify performance measures for outcome-based accreditation. The Agency for Healthcare Research and Quality currently funds 12 Evidence-Based Practice Centers in the United States and Canada. These centers produce evidence-based reports and monitor the research literature for evidence-based information in specific content areas (see www.ahrq.gov/clinic/epc/).

The literature related to evidence-based approaches in health care has grown dramatically in the past 10 years (see Figure 1). There was a 1000% increase in the number of reference citations in Ovid and PubMed for the key words evidence-based medicine and evidence-based practice from 1995 to 1998. The number of citations referring to evidence-based practice or EBM increased another 100% from 1998 to 2001.

The impact of evidence-based practice on occupational therapy has been more recent and first appeared in the British and Canadian occupational therapy literature (Law & Baum, 1998; Taylor, 1997; Tickle-Degnen, 1998). Dubouloz, Egan, Vallerand, and von Zweck (1999) published an article in AJOT that described the perceptions of (Canadian) occupational therapists of evidence-based practice. The study included interviews with 8 therapists and revealed three emergent categories of perception: (a) evidence-based practice as a search for understanding, (b) evidence-based practice as associated with research, and (c) evidence-based practice as a potential threat to occupational therapists. The authors argued for additional attention and research on evidence-based practice in occupational therapy to overcome therapists’ perceived lack of time to read the literature, inability to interpret research findings, and feelings of vulnerability to the findings produced by evidence-based reviews.

In September/October 1999, AJOT introduced the Evidence-Based Practice Forum (Tickle-Degnen, 1999). The forum has been a regular department in AJOT since and has addressed many of the concerns raised by Dubouloz et al. (1999). The forum has included articles describing the steps used in evidence-based practice and how evidence-based practice can be applied to clinical questions in occupational therapy. It has raised awareness among practitioners and educators about the complex issues associated with implementing evidence-based practice in a discipline such as occupational therapy, which has some similarities to medicine but also many differences.

The dominant model of evidence-based practice in medicine is based on the work of Sackett, Strauss, Richardson, and Haynes (2000). This model of EBM is designed to enhance clinical decision making in three primary areas: diagnosis, intervention, and prognosis. An elaborate technology has been developed to operationalize evidence-based decision making in each of these areas. The EBM tools created to enhance decision making include algorithms for identifying clinical questions, searching the literature, and quantifying outcomes (e.g., control event rate, relative risk reduction, number needed to treat, experimental benefit rate) (Sackett et al., 2000).

Some authorities have suggested that evidence-based practice in occupational therapy be modeled directly on the procedures used in EBM (Holm, 2000; Lloyd-Smith, 1997). The processes of clinical reasoning and decision making in occupational therapy, however, may differ from those in medicine, and these differences may result in difficulty transferring methods developed in EBM to occupational therapy (Egan, Dubouloz, von Zweck, & Vallerand, 1998). There is no question that the basic principles of EBM are also relevant to occupational therapy; that is, the use of “current best evidence” to make treatment decisions for “individual patients.” Among the questions that remain unanswered are the following:

- What is the best evidence for occupational therapy? Can best evidence come not only from large, randomized controlled trials, but also from other types of study designs, such as single-subject, quasi-experimental, correlational, narrative

![Figure 1. Frequency of references in Ovid and PubMed to evidence-based practice and evidence-based medicine from 1992 through 2001.](http://ajot.aota.org/pdfaccess.ashx?url=/data/journals/ajot/930141/)
analysis, ethnographic, and phenomenological designs? Is “best” evidence defined by the specific task for which it is being used, or is there some type of evidence that is the gold standard? As a profession, we need to understand clearly what kind of evidence we need and for which tasks before we can determine what is “best.”

• How do we interpret that evidence? Can we directly apply to our own clinical settings the findings from research in other settings with clients who are different from our own? When is generalization from evidence appropriate and when is it not? What are the boundaries to our inferences and applications?

• How should the results be disseminated to practitioners? What are the benefits and limitations of various dissemination methods? What would be the most effective method for integrating evidence-based practice into current practice without adding burden to heavy caseloads? Finally, what are the ethical implications of evidence-based practice in occupational therapy?

The best way to predict the future of health care is to help create it. The challenge of answering these questions will help us to create evidence-based occupational therapy and improve the health and quality of life of the persons our profession serves.

Therapists awake! ▲

References