Evidence-Based Practice Forum

Organizing, Evaluating, and Using Evidence in Occupational Therapy Practice

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The article, “Occupational Therapists’ Perceptions of Evidence-Based Practice,” by Dubouloz, Egan, Vallerand, and von Zweck, in this month’s issue of The American Journal of Occupational Therapy (AJOT®), is perfect for kicking off a new commentary on evidence-based practice in occupational therapy. As Associate Editor of Evidence-Based Practice, I and others will be commenting periodically about articles in AJOT as they relate to evidence-based practice as well as using the forum to inform the journal’s audience about issues that are particularly relevant to evidence-based practice in our field.

Evidence-based practice is gaining momentum in occupational therapy. In the summer of 1998, an entire issue of the Canadian Journal of Occupational Therapy, guest edited by Mary Law and Carolyn Baum (1998), was devoted to the topic. At this year’s American Occupational Therapy Association Annual Conference and Exposition in Indianapolis, there were several presentations with the term in the title, whereas in past years there were almost none. The “Evidence-Based Practice Forum” provides a timely venue with which to emphasize and convey information about this important emerging concept.

What Is Evidence-Based Practice?

Not surprisingly, because of the relatively recent introduction of evidence-based practice into our field, the occupational therapists in Dubouloz et al.’s (1999) study showed only vague understandings of its meaning. My own experience from teaching students and therapists resonates highly with this finding, suggesting to me that this lack of understanding can be generalized to a much larger population of occupational therapists than the study participants.

Perhaps it is important, first of all, to state that evidence-based practice methods do not prescribe the types of assessments or intervention procedures that practitioners should use in practice. Rather, evidence-based practice is like a toolbox of methods to aid clinical reasoning, and, furthermore, it is a toolbox consisting primarily of methods designed to integrate research study evidence into the clinical reasoning process. The methods of evidence-based practice help the practitioner select the best assessments and intervention procedures from an array of possibilities.

According to Sackett, Richardson, Rosenberg, and Haynes (1997), who are among the primary advocates and founders of evidence-based practice in medicine, evidence-based practice is “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (p. 2). It is important to note two words in this description: current and best. There are many forms of evidence that practitioners use in their decision-making, as demonstrated by the therapists interviewed by Dubouloz et al. Practitioners use evidence derived from clinical experience, education, consultations with experts, and so forth.
and peers, professional literature, and, perhaps foremost, from observing and talking with clients and their family members. Evidence-based practice does not require that practitioners give up any of these sources of evidence. Rather, it provides methods for organizing the evidence around central clinical tasks, such as client assessment or intervention planning, and then for determining among the array of evidence what is “current” and “best” evidence for implementing these clinical tasks.

Because practitioners in all health fields, not just the occupational therapists interviewed by Dubouloz et al., are inclined to feel insecure about their grasp of the research literature, many of the tools involved in evidence-based practice are dedicated to the gathering of current and best evidence from the research literature. This focus on research evidence can lead practitioners to misinterpret evidence-based practice to be a form of practice that is based solely on research study evidence and that is devoid of evidence based on clinical experience and the client’s own needs and desires. So let’s make it clear from the very beginning that using evidence-based practice in occupational therapy in no way means giving up the rich, integrative clinical reasoning so eloquently described by Mattingly and Fleming (1994) in the study of occupational therapy practitioners. Rather, evidence-based practice provides tools for (a) organizing evidence around central clinical tasks such as assessment and intervention planning, (b) evaluating the evidence for how current and valid it is, and (c) using the best evidence to accomplish the clinical tasks in such a manner as to achieve optimal outcomes. Furthermore, evidence-based practice provides tools for translating evidence into user-friendly terms. This translation makes communication about the meaning of evidence easier and can enhance client-therapist collaboration. As a result, evidence-based practice is particularly suited to supporting our client-centered values and philosophy (Egan, Dubouloz, von Zweck, & Vallerand, 1998; Tickle-Degnen, 1998).

Because research study findings provide crucial evidence relevant to practice and are perhaps the most underused form of evidence in clinical reasoning, the commentaries in this forum will focus on the organization, interpretation, and use of research study evidence. My hope is that the forum commentaries will show how research evidence can be integrated effectively with other forms of evidence that practitioners use in their clinical reasoning during daily practice. In this issue of AJOT, I address evidence-based practice as a tool for organizing evidence around central clinical tasks. In future issues, I will address evidence-based practice as a tool for assessing the currency and validity of evidence and for using the best evidence in clinical practice.

A Tool for Organizing Information To Accomplish Clinical Tasks

Sackett et al. (1997) have described how evidence for practice can be organized around clinical tasks central to medical practice: performing a clinical examination, determining etiology of disease, making a differential diagnosis, selecting diagnostic tests, predicting prognosis, selecting therapy, attempting prevention, and seeking self-improvement. Evidence-based practice begins when a practitioner formulates a question around a clinical task in such a manner that the question can be answered through a systematic search for relevant evidence. Occupational therapy practice has its own set of clinical tasks that can be used to guide question formulation and the subsequent organization of and search for evidence. Dubouloz et al. briefly describe a set of clinical tasks from the perspective of an occupational performance process model (see Egan et al., 1998, for more detail). For my teaching of evidence-based practice to entry-level students as well as to practicing therapists, I have used a simple model that focuses on three central clinical tasks:

1. Identifying occupation and occupational performance issues that are relevant to a particular client population
2. Selecting assessment procedures
3. Planning intervention

Regardless of the model used, a therapist seeking to provide evidence-based practice would first develop a clinical question to guide the search for evidence relevant to a particular clinical task and a particular client or client population.

For example, suppose the therapist has a client who is an elderly woman with depression who lives in the community. The therapist might formulate the following questions from the three-task model that I have used:

1. What are the general patterns and individual variations in occupation and occupational performance among elderly women with depression who live in the community and among those without depression who live in the community?
2. What are the most reliable and valid methods for assessing occupation and occupational performance among elderly women with depression who live in the community?
3. What are the most effective interventions for increasing participation in satisfying daily life activities among elderly women with depression who live in the community?

Note that each of these questions is composed of three elements: the type of evidence that is being sought, an attribute related to occupation or occupational performance, and a description of the client’s population. The first question seeks descriptive information (general patterns and individual variations) about occupation and occupational performance in the client’s population (elderly women with depression who live in the community) and a population that the client or client’s family members would use as a standard of comparison. When looking for evi-
dence in the research literature to help answer this question, the therapist would examine qualitative and quantitative descriptive studies. (I include purely descriptive, as well as correlational, cross-sectional, and longitudinal designs in my definition of descriptive quantitative studies.)

The second question seeks assessment information (most reliable and valid methods) relevant to occupation and occupational performance in the client's population. The therapist would examine methodological and measurement studies to help answer this question. Like Egan et al. (1998), I believe that it is very important to include qualitative and quantitative standards of assessment in evidence-based practice.

The third question seeks intervention effectiveness information (most effective interventions) for achieving a specific occupational outcome (increasing participation in satisfying daily life activities) in the client's population. The therapist would examine intervention effectiveness studies, primarily experimental and quasi-experimental in design, to address this final question. Of course, the entire process of developing these questions is guided by the therapist's model of practice and theoretical orientation (Egan et al., 1998) as well as in collaboration with the client. In future forums, I will discuss how therapists use these three questions to organize their search for "current" and "best" evidence.

Should Occupational Therapists Be Using Evidence-Based Practice Methods?

If we want to do what is best for the client, yes! Although clinical experience, consultation with peers, and discussions with the client and family members are invaluable sources of evidence, evidence from these sources usually is not gathered (although it is possible to do so) with the same systematic rigor as evidence gathered in carefully conducted qualitative and quantitative research studies. A particular weakness of unsystematic gathering of evidence is that human beings tend to gather evidence during their daily lives in such a manner as to confirm their own assumptions and beliefs. If we have a particular fondness for a type of intervention, we will tend to perceive more readily when it benefits our clients and perceive less readily when it does not. Furthermore, we may be less attentive to the greater benefits of a less fondly regarded intervention method. Our judgments, then, are weighed in favor of our preconceptions. The scientific method used in evidence-based practice was developed partly in response to this tendency.

On the other hand, the primary weakness of evidence gathered from published research studies is that those studies were not carried out with the particular client with whom we are currently working. It is possible to glean a certain amount of individualized information from research studies, more frequently than is commonly thought, through the examination of certain types of studies (qualitative or single-subject designs) and certain types of analyses within large group studies (analyses broken down by client attributes such as gender, age, and other important attributes, or which show the degree of variation among individual participants within the study). However, the primary source of individualized evidence is from the client and family members combined with the therapist's own clinical experience with similar clients.

Therefore, it is clear that all sources of evidence are critical to clinical reasoning and doing the best for our clients. The methods of evidence-based practice give us the tools to sort out, evaluate, and use the evidence gathered from a variety of sources. We must address the concerns voiced by the occupational therapists studied by Dubouloz et al. (1999) and develop strategies and informational sources that can make it possible for occupational therapists to use these tools almost effortlessly in daily clinical practice.

References


Note. If you have any suggestions for topics or issues to be addressed in future installments of the Evidence-Based Practice Forum, please send them to Linda Tickle-Degnen, Department of Occupational Therapy, Sargent College of Health and Rehabilitation Sciences, Boston University, 635 Commonwealth Avenue, Boston, MA 02215; tickle@bu.edu.