Evidence-Based Practice Forum

Communicating With Clients, Family Members, and Colleagues About Research Evidence

In the first three installments of the forum, I discussed the first steps of how to do evidence-based practice:
1. Write a clinical question
2. Gather current evidence that might answer the question
3. Evaluate the gathered evidence to determine what is the “best” evidence for answering the question.

In this installment, I discuss the next step:
4. Communicate with clients, their family members, and health practitioner colleagues about this evidence as assessment and intervention decisions are being made.

It is at this fourth step that an evidence-based approach most clearly supports the values and ethical principles of occupational therapy practice.

Practice rests firmly on the foundation of a respectful, collaborative relationship with the client and those acting on the client’s behalf. They are viewed as active contributors to the planning and intervention process of therapy rather than as passive recipients of information or services. To be active rather than passive, that is, to act with as much autonomy as possible and the least amount of dependency (American Occupational Therapy Association, 1994), clients and those acting on their behalf must be informed, not uninformed or misinformed. To be informed means to know about (a) the nature of the client’s occupational status and its relationship to quality of life; (b) the nature and quality of the possible assessments undertaken; and (c) the nature, quality, and probable outcomes of relevant interventions. Once informed, clients and those acting on information that is understandable, the therapist must take this retrieved evidence, a large portion of which is possibly technical and conflicting, and summarize it in a paragraph or two of non-technical language. How to obtain accurate information has been the focus of the previous installments of this forum. In this installment, the focus is on how to make the information understandable.

Information That Maximizes Reasoned Decision Making

Information that maximizes reasoned decision making is accurate and understandable. To provide others with accurate information, the therapist must conduct an unbiased, comprehensive search for evidence and evaluate the body of evidence for its relevance and quality. Then, to provide others with their behalf can reason and act with the degree of autonomy of which they are capable.

An implication of autonomous reasoning and action is that clients can choose to participate or not participate in occupational therapy assessments and interventions. Likewise, family members or other health practitioners may decide to encourage or discourage client participation. The therapist’s responsibility is to provide information in such a manner that reasoned decision making is maximized. The tools of evidence-based practice help the therapist structure and present the information to achieve this outcome.

Information That Answers the Clinical Question

Information that is understandable is organized around a central topic or purpose. In evidence-based practice, the therapist organizes information around the clinical question that guided the search for and evaluation of the evidence. Different information is communicated, depending on whether one is addressing descriptive, assessment, or intervention effectiveness questions.

Table 1 shows the various forms of information that are communicated. Information organized in this manner represents an answer or a “possible” answer to a pressing question, an answer that guides the decisions that the therapist and client make together.

Descriptive information can help the client compare himself or herself to others in similar circumstances and decide whether it is relevant to pursue occupational therapy and assessment. Assessment information can help the client decide whether to participate in a particular assessment procedure. Intervention effectiveness can help the client decide whether to participate in a particular intervention procedure.

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This article was accepted for publication March 3, 2000.
Communicate About the Body of Evidence as a Whole

Information that is understandable forms a coherent whole. Before communicating about the evidence, the therapist must form an integrated interpretation of an entire body of evidence. When the search for evidence has turned up a recent and high-quality published literature review or meta-analysis—a quantitative review and synthesis of the literature—this integration has already been achieved by the published author. The therapist need only translate the review’s technical language and presentation into language understandable to the client (Tickle-Degnen, 1998a). However, if no such review has been found, the therapist must make an accurate integration himself or herself. This integration requires skill that develops with the study of research methods and with the practice of having to communicate clearly about a body of evidence.

In my opinion, there are two central guidelines to follow when making an integrated interpretation of a body of evidence:

1. Give heavier emphasis to studies that the therapist has evaluated as providing the most accurate (strongest) evidence than to those studies with weaker evidence. (See the past installment [AJOT, 54(1):102–105] of this forum as well as research methods textbooks for how to evaluate the evidence.)

2. When examining statistics, do not rely solely on significance tests and their p values for determining what the study found unless the study involved a large sample size (roughly 60 or more participants). Studies that have large sample sizes have more “power” to detect a “statistically significant” effect than studies with small sample sizes (Ottenbacher & Maas, 1999). To begin to overcome the problem of integrating both small and large sample studies, the therapist should learn to examine and accurately interpret basic descriptive statistics, such as frequencies and ranges, means and standard deviations (Tickle-Degnen, 1998b), and simple correlations. These descriptive statistics can be compared across studies of different sample sizes, whereas the inferential statistics (e.g., t tests or F tests and their p values) cannot because they are a direct function of the sample size of a particular study. It is possible that two studies may appear to have conflicting findings. One study, involving a small sample size, may report a result that did not support the effectiveness of a particular intervention method. Usually, this failure is represented by a large p value (typically p > .05) derived from an inferential statistic. On the other hand, a second study, with a larger sample, may report a result that supported the effectiveness of the intervention. Usually, this support will be represented by a small p value (typically p < .05). Despite the difference in p values, the actual mean scores of the participants may show that those in both studies derived benefit more from the intervention than the nonintervention condition. Therefore, there may be an underlying consistency between the findings of the two studies, but the smaller study simply did not have the “power” to support a “statistically significant” finding. The integrated interpretation of these two studies would be that together they appear to support the effectiveness of the intervention.

When two large-sample studies, both evaluated by the therapist as relevant and of high quality, have findings in opposite directions, the task of integration is more challenging. In this case, the therapist must report to the client that the body of evidence gives conflicting answers to the clinical question. This conflicting evidence will be a factor that the therapist and the client consider as they make decisions together.

Communicate Individualized Information

Information that is highly relevant to the client’s own experience and situation is understandable. People better understand information when they can draw on their own experience while hearing it. For all three types of questions—descriptive, assessment, and intervention—the therapist emphasizes evidence that is most germane to the particular client (Tickle-Degnen, 1998b). Many published studies have findings listed separately for different subgroups of the sample. For example, findings may be listed separately for men versus women, for those with more versus less severe disabling conditions, or for those who are younger versus older. The therapist communicates the findings that are most relevant to the client.

Communicate at the Client’s Comprehension Level

Information that is understandable is communicated with words and grammar that fit the client’s background and comprehension ability. The use of professional jargon—words that have meaning only within our profession or among health care providers in general—should be

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<th>Table 1</th>
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<td>Information That the Therapist Communicates to the Client for Three Types of Clinical Questions</td>
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<table>
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<tr>
<th>Type of Question</th>
<th>Sample Question</th>
<th>Information That the Therapist Communicates</th>
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<tr>
<td>Descriptive</td>
<td>Among elderly women who live in the community, do those with depression have restricted participation in daily life activities compared with those without depression?</td>
<td>Differences between those with and without depression in their patterns of participation. Similarities between those with and without depression in their patterns of participation. The range and variation of participation patterns among those with depression. Reliability of methods Validity of methods</td>
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<tr>
<td>Assessment</td>
<td>What are the most reliable and valid methods for assessing occupation and occupational performance among elderly women with depression who live in the community?</td>
<td>Differences in patterns of participation between those who received and did not receive intervention. Similarities in patterns of participation between those who received and did not receive intervention. The range and variation of participation patterns among those who received the intervention.</td>
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<td>Intervention effectiveness</td>
<td>What are the most effective intervention methods for increasing participation in satisfying daily life activities among elderly women with depression who live in the community?</td>
<td>Differences in patterns of participation between those who received and did not receive intervention. Similarities in patterns of participation between those who received and did not receive intervention. The range and variation of participation patterns among those who received the intervention.</td>
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avoided. Terms like ADL (activities of daily living) or functional performance are not understood unless the client has been instructed in their meaning.

To clients whose comprehension abilities are unimpaired and who have science-related backgrounds, or to family members with such backgrounds, or to health practitioner colleagues, the therapist can give as detailed report of synthesized findings as is of interest to the listener. To those without such a background, the therapist must be careful to translate scientific and research terminology into common, everyday language. For clients with comprehension disabilities, the therapist adjusts the language and concepts appropriately. Regardless of the level of comprehension or scientific background, the therapist should allow enough time for the listener to absorb and ask questions about the communicated information before engaging in any decision making.

Even if the client is not interested in hearing evidence-based information, the therapist can communicate the information in an indirect manner to support the client’s active participation in decision making. For example, using evidence from research on the effectiveness of a particular type of splint in improving hand function, the therapist might say, “Quite a few people have found this splint to work well at making it easier for them to use their hands. Do you want to try it out to see if it works for you?”

**Next Installment: The Final Step of Evidence-Based Practice**

In the next and final installment of this “how-to” series, I will discuss the final step of evidence-based practice: Evaluate evidence-based assessment and intervention procedures as they are implemented with clients, and revise and individualize as appropriate. The systematic collection of information in the therapist’s own clinical practice enhances clinical reasoning and builds the body of evidence available for making decisions with clients.

This series has been brief and far from comprehensive. If you have a paper relevant to evidence-based practice, please submit your manuscript to the Editor of *The American Journal of Occupational Therapy*, Betty R. Hasselkus. If there is a topic that you would like to have addressed in this forum, contact Linda Tickle-Degnen at tickle@bu.edu.

**References**


