Last year, I wrote about the need for a theory of clinical expertise in speech-language pathology (Kamhi, 1994). In the changing health care market, considerable energies are being expended now on ways to measure and document the efficacy of our treatment methods. Much has been written concerning the particular knowledge, technical skills, interpersonal skills, and attitudes that contribute to clinical expertise (see, for example, Cornett & Chabon, 1988; American Speech-Language-Hearing Association’s Speech-Language Pathology Skills Inventory [ASHA, 1994a], and the rich body of supervision literature). There is relatively little information, however, concerning the actual impact some of these factors have on treatment outcomes. To address these gaps in our clinical research, I suggested that clinicians and clinician characteristics need to become the focus of our studies (Kamhi, 1994).

During the past couple of years, I have conducted a series of studies involving over 100 speech-language pathologists with varying levels of clinical experience. In this article, I will summarize some of the major findings from several of these studies, present a working model of clinical expertise, offer some speculative comments concerning the development and maintenance of clinical expertise, and discuss some of the problems with research in this area.

SUMMARY OF CLINICAL EXPERTISE RESEARCH

How do experienced clinicians view clinical expertise? In order to answer this question, 12 clinicians with 8–25 years of clinical experience ($M = 17$ years) were asked to discuss the factors they thought were important for providing effective therapy. The clinicians were drawn from a variety of clinical settings, including a university clinic, public and private schools, and a home-based private practice. The interviews, which ranged from 30–60 minutes, were transcribed verbatim. The factors mentioned by the clinicians clustered into four categories: knowledge, technical skills, interpersonal skills/attitudes, and a category I have labeled “clinical philosophies,” for lack of a better term. The specific factors clinicians mentioned appear in the Appendix.

Knowledge-based factors were not mentioned as much as the other three factors. When questioned about why they did not mention knowledge-based factors, clinicians indicated that an adequate knowledge base was assumed. The various clinical philosophies mentioned by the clinicians seemed fairly inclusive, though one could surely add to the list. For example, Naremore, Densmore, and Harman (1995) concluded a recent book on language intervention with school-age children with their four-part philosophy: question, think, strive for the ideal, and welcome the challenges.

In a related study, 26 graduate students and 46 practicing clinicians were asked to rate the importance of 10 technical/procedural and 10 interpersonal/attitudinal aspects of therapy and answer a few questions in writing about their ratings. The 46 practicing clinicians had been working for an average of 7 years (range 1–20 years). The majority worked in schools (33%), but all settings were represented (e.g., hospitals, rehabilitation facilities, home health, etc.). After completing the written portion of the study, clinicians were given the opportunity to talk about their written responses in follow-up interviews. Specific questions concerning the importance of the technical and interpersonal/attitudinal aspects of therapy were used to facilitate discussion. Technical aspects included objectives, therapy activities, materials, speech-language models, and behavioral management. Interpersonal/attitudinal aspects included adaptability, enthusiasm, confidence, interest, and innovativeness.

The data indicated that all clinicians, regardless of experience, rated interpersonal/attitudinal factors as significantly more important than technical aspects of therapy. Importantly, the average ratings were well above 4
on a 5-point scale for both aspects of therapy. The technical aspects of therapy that received the highest ratings were objectives and speech-language models. Interestingly, these aspects of therapy depend heavily on an adequate knowledge base. The attitudes that received the highest ratings were interest and adaptability. In the follow-up interviews, clinicians generally said that technical and interpersonal/attitudinal aspects of therapy were equally important. However, when one aspect of therapy was judged to be more important, it was almost always the interpersonal/attitudinal aspects. For example, a typical response was that one has to have the right attitudes in order for procedures to be effective.

A Model of Clinical Expertise

Figure 1 presents a working model of clinical expertise that is based on the factors clinicians believe are important for the provision of effective treatment. The examples of the three components listed on the figure are not meant to be inclusive. Over 100 clinicians were asked to comment on the model. The addition of the self-monitoring component and problem solving was based on suggestions on earlier versions of the model. A few clinicians felt that problem-solving skills were distinct from procedural skills and should be a separate box. Most clinicians, however, thought that there was enough overlap between the two to justify combining them. Clinicians were not concerned with the potential difficulty of distinguishing between knowledge and procedural/problem-solving skills. That is, they had no difficulty distinguishing the knowledge a clinician has of assessment and treatment procedures from the skills involved in implementing these procedures. Many clinicians appreciated the simplicity of the model and felt that any factor they thought was important for providing effective treatment could be placed in one of the four components of the model.

The Development of Clinical Expertise

In order to get a sense of how experienced clinicians view the development of clinical expertise, the 12 experienced clinicians who helped me to define clinical expertise were asked to talk about how they have changed during their professional careers. Clinicians talked a lot about their comfort level and confidence in their abilities to effect change. Several clinicians noted that they had a greater knowledge base right out of school. One clinician talked about how she was more tied to the knowledge base and techniques when she first began working. Now she takes the time to listen to clients and tries to get to know them. A couple of clinicians said they have become more “seat of the pants” as they have gotten older. One of the clinicians mentioned that he makes decisions more quickly and accurately now. Many of the clinicians noted the increasing importance of interpersonal skills as they have matured as clinicians. Clinicians also noted a change to more functional and pragmatic objectives. One clinician said that she is not “so hung up on speech and language” as she was in the past; her main goals now focus on interpersonal and interactive skills and on treating the whole person.

Based on these interviews, I would like to offer some speculative thoughts on the development of clinical expertise. The development of clinical expertise seems to be characterized by the attainment of a certain comfort level with one’s knowledge base, technical/problem-solving skills, and interpersonal skills/attitudes. In novice clinicians, there is a distinct division between these three components because novices are expanding considerable efforts acquiring the requisite knowledge base at the same time they are learning technical skills. Their interpersonal skills and attitudes also may be inconsistent with some of the clinician models they are asked to emulate. With experience, novice clinicians become more confident with their ability to effect change. They become comfortable expressing their knowledge of the field, their technical skills become well honed, and they gradually develop their own clinical style/approach that reflects a unique combination of knowledge, technical/problem-solving skills, and interpersonal abilities and attitudes.

The experienced clinicians who were interviewed in these studies spoke often about learning to focus on the whole client rather than the part of the client that involves speech-language behavior. The view of clinical expertise that I am suggesting here also has to do with a whole and its parts. In this case, the whole is the clinician as a person. The part of the person that is the clinician consists of the three main components of clinical expertise discussed previously: knowledge base, procedural/problem-solving skills, and interpersonal skills/attitudes. Students do not view themselves as clinicians because they are first learning the knowledge and skills that define clinical expertise. Stated somewhat differently, in novice clinicians, there is a clear division between the student as a clinician (clinical self) and the student as a person (personal self). With experience, the knowledge, skills, and attitudes that define clinical competence gradually become an integral part of the person. The development of clinical expertise thus may be viewed as a gradual integration of clinical attributes with the attributes that define the person. The integration continues until the clinical self becomes fully merged with the personal self. The integration of the clinical self with the personal self is one reason experienced clinicians are so comfortable and confident.
There is some support for this conceptualization of the developing clinician in the literature. DeJoy's (1991) recent article on overcoming fragmentation through the client-clinician relationship concludes with a section on the self as instrument. He cites a book by Combs, Avila, and Purkey (1971) on helping relationships, in which they stated that effective operation in the helping professions is a question of the use of the helper's self, the peculiar way in which he is able to combine his knowledge and understanding with his own unique ways of putting it into operation to be helpful to others. (DeJoy, 1991, p. 24)

Dejoy went on to write:

As professional helpers we may have to pull together not only our fragmented approaches to clients but also our fragmented selves.... Individuals may feel compelled to do something or be someone very special, when engaged in the role of professional helper. In fact, our clients may be best served when we interact in a manner consistent with our own self-concepts and perceptions of what makes good sense. (p. 24)

Of course what makes sense to one clinician may not make sense to another. There is, however, some consensus in the field that intervention should be functionally oriented, emphasizing meaningful communication with different partners in different social situations (e.g., Owens, 1995). For the novice clinician, it is as if barriers exist between clinical procedures and real life (i.e., functional, meaningful communication). The novice clinician typically treats the communication problem in the person rather than the person who happens to have a communication problem.

Maintaining Clinical Expertise: A Commitment to Learning and Change

The notion that clinical expertise can be attained suggests that once one reaches a certain level of clinical competence, there is nothing more to be learned. But clinical expertise involves more than the attainment of a certain level of clinical competence; it involves a commitment to learning as well. Expert clinicians are not satisfied with the attainment of a certain level of clinical competence; they continually strive to improve the effectiveness of the services they provide. Often, change is mentioned as the key element in maintaining clinical expertise. In defining clinical expertise, a number of clinicians noted the importance of change. For example, one clinician stated that "change was essential; if you don't change, you don't grow" (see Appendix).

In the January 1995 issue of Asha, a special section focused on change. In the lead article, Barbara Goldberg noted that "the single most important key to success is lifelong learning" (p. 47). Although change is arguably the key element in maintaining clinical expertise, the amount of change necessary to maintain clinical expertise and the areas in which change should occur are not very clear. Goldberg reprinted some suggestions from ASHA's Long Range Strategic Planning Board. These included: (a) work to maintain and enhance skills, (b) stay abreast of advances in technology, (c) be capable of evaluating communication needs of specific populations, and (d) be flexible; participate in cross-disciplinary service delivery.

A number of factors influence the likelihood of clinician change. These factors can be divided into those that are clinician initiated and those that are externally generated by changes in clients, settings, or administrators. Continuing education experiences are another important source of change. The likelihood of a clinician-initiated change can be viewed in terms of a cost/benefits ratio. Cost equals the amount of effort involved in making the change. The benefit is the perceived benefit of the change on client progress and clinician job satisfaction. The higher the cost, the greater the benefits need to be. Clinicians may have more difficulty initially accepting changes that result from external factors, but with time, these changes may be viewed in a more positive light. For example, changes in continuing education requirements to maintain certification generally are not well received by most practitioners.

It should be clear that it is not sufficient for a model of clinical expertise simply to acknowledge the importance of adaptability and change; we need to understand how clinicians change throughout their professional careers. It may be possible to identify a series of stages that reflect the ongoing development and refinement of clinical expertise. For example, one important stage may occur when the clinical self becomes the personal self.

An understanding of the central role change plays in clinical expertise requires knowledge of the factors that influence learning and change in adults. The education field has a rich literature in this area (cf. Evans, 1982; Evertson, 1987). In our field, Crais and her colleagues (Crais, Geissinger, & Lorch, 1992) have examined the needs and preferences of clinicians and the impact in-service experiences have on clinical practice. They provide a number of suggestions of ways to ensure that information and skills gained in in-service activities will be used in the clinical setting.

CONCERNS AND FUTURE DIRECTIONS

I think we can learn a lot about clinical expertise and clinical decision-making by making clinicians and clinician characteristics the focus of research studies. One problem with this research that needs to be recognized, however, concerns the validity of asking clinicians to define clinical expertise. Just because a clinician believes that a particular attribute (e.g., flexibility) is critical for providing effective services does not mean that such an attribute is more important than one that is not mentioned. Many clinicians failed to mention the importance of observational skills or professional commitment, but these and other factors may play a significant role in the provision of effective therapy. Although clinicians have been an untapped resource for too long, it is important to realize that some clinicians may not know what makes them effective. A related concern is that clinical experience does not ensure clinical competence. We can all think of someone who is not providing high-quality services despite many years of clinical experience. It may
not be appropriate, therefore, to assign equal weight to the comments and views of all experienced clinicians. The ideas concerning clinical expertise expressed in this article need to be supported by future studies that address the relationship between the knowledge and skills that define clinical expertise and measures of treatment outcome. As I noted last year (Kamhi, 1994), it is not easy to operationalize qualities such as flexibility, enthusiasm, and confidence and relate these qualities to outcome measures. There are now, however, a number of ongoing efforts in our profession that are addressing the need for high-quality outcome data. For example, ASHA’s Task Force on Treatment Outcome and Cost Effectiveness currently is working to organize available data on the functional outcomes of adult patients in rehabilitation settings as well as develop plans for collecting outcome data in pediatric populations and in schools (ASHA, 1994b). Our understanding of clinical expertise will not be complete until we have research that systematically evaluates the effect different attributes of clinical expertise have on the clients we serve.

REFERENCES


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APPENDIX

Knowledge, Skills, Attitudes, and Philosophies That Characterize Clinical Expertise

Knowledge

- broad range of knowledge
- knowledge about the client’s background/family, level of functioning, etc.
- know your goals/know what you’re targeting and listening for

Technical/Procedural Skills

- stay tuned to client’s responses
- specificity of feedback
- pacing/timing
- speech-language models
- behavioral management
- materials
- reinforcement
- organization/structure
- preparedness

Interpersonal Skills and Attitudes

- flexibility, adaptability
- confidence
- genuine concern/interest in client, sensitive to needs
- enthusiasm
- sincerity, warmth
- risk-taker
- creative, innovative
- value system—the way you present yourself
- positive, accepting/non-threatening attitude
- believing in what you’re doing
- patience
- motivation
- rapport (clinician-client relationship)
- humor (be able to laugh at oneself)

Clinical Philosophies

- family involvement, peer interaction (normal and disordered)
- child-focused activities
- client should know you’re in control
- therapy should be fun and meaningful
- whole language
- change is essential; if you don’t change, you don’t grow
- classroom inclusion activities
- functional communication (therapy should mimic real life/hands-on activities
- make sure client knows what to expect
- controlled naturalism, nurturing environment
- relaxed atmosphere
- if it works, it’s OK