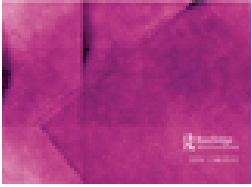


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Review

Expertise in research-informed clinical decision making: Working effectively with families of children with little or no functional speech

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Abstract

In this article, we consider what is known about how to work effectively with families of children with disabilities, including those with little or no functional speech. Existing evidence about what families want from services is considered, along with information about how expert therapists practice. Our review indicates the importance of understanding family needs, preferences, and priorities, and of being sensitive to the demands of interventions on family life. The augmentative and alternative communication (AAC) literature is linked to the broader literature, confirming what is known about how to work effectively with families and illuminating the contribution of AAC research to this area of knowledge. In general, the AAC literature highlights the importance of the parent-practitioner relationship, of parental involvement and engagement in the intervention process, and of considering the demands that interventions place on families. We conclude that AAC intervention will benefit from continuing therapist efforts to strengthen the client-practitioner relationship through greater situational understanding and appreciation of family perspectives and life circumstances. Therapists' efforts should also focus on customizing intervention strategies in order to optimize clients' sense of control, meaningfulness, and engagement.

Keywords: *Expertise, family, worldviews, family-centered service, AAC, severe communication impairments*

INTRODUCTION

What do families of children with disabilities want from intervention services? How do expert practitioners approach clinical practice? How can practitioners meet the needs of families most effectively? These questions are fundamental to the success of interventions in pediatric rehabilitation. The present article synthesizes what is known about how to work effectively with families, highlighting the contribution of the augmentative and alternative communication (AAC) literature to this topic.

Families play a crucial role in the success of AAC interventions. The active involvement and engagement of parents in a collaborative partnership with practitioners is considered essential to the successful use of AAC (Angelo, Jones, & Kokoska, 1995; Beukelman & Mirenda, 2005; Soto, Muller, Hunt, & Goetz, 2001). Ensuring family acceptance or 'buy in' is a critical first step in the implementation of any AAC device or strategy recommendation, and is dependent on the practitioner's understanding of the needs, preferences, and priorities of families (Parette & Angelo, 1996). Furthermore, family support and commitment over time is a key contributor to successful outcomes in AAC (Huer & Lloyd, 1990; Lund & Light, 2007). The success of AAC

interventions depends on parents having detailed knowledge about communication techniques and technologies, being competent in the operation, maintenance, and customization of AAC systems (Light & Drager, 2007), and being enabled and empowered as communication partners, teachers, and advocates for their children (Goldbart & Marshall, 2004).

The special demands of working with the families of children with little or no functional speech draw attention to several themes that are highlighted in the present article; namely, the importance of the parent-practitioner relationship, of parental involvement and engagement in the intervention process, and of considering the demands that the use of AAC systems place on families. The AAC literature highlights the importance of family needs and expectations, which play an important role in device abandonment. The heightened pressures and demands on parents associated with AAC require that practitioners display sensitivity, flexibility, and responsiveness to family perspectives and situations (Hammer, 1998; Robinson & Sadao, 2005). The AAC literature has paid little attention, however, to how to strengthen client-practitioner relationships, facilitate parental engagement, and reduce demands on families. To understand these psychosocial processes, we need to consider the nature of research-informed practice, what families want in life and from services, and how expert therapists strive to meet family needs.

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In the following sections, we consider current thinking about the nature of knowledge and evidence, leading to the endorsement of a broad definition of evidence-based or research-informed practice (defined below). This broad definition leads us to consider the importance of gaining knowledge about clinical practice by explicitly examining (a) what families want in life and from services, and (b) how expert therapists endeavor to meet the needs, preferences, and priorities of families. Two streams of research are then summarized that address these issues: (a) studies of family world-views, beliefs, and priorities; and (b) studies of the approaches, characteristics, knowledge, and skills of therapists at higher levels of expertise. The article concludes by integrating these two streams of practice-relevant research into several bottom lines about how to work effectively with families, including families of children with little or no functional speech. Throughout the article, the AAC literature is linked to the broader literature, confirming general ideas about how to work effectively with families and highlighting the contribution of the AAC literature to what we know about this essential and complex process.

RESEARCH-INFORMED PRACTICE AND PRACTICE-RELEVANT RESEARCH

The nature of evidence, knowledge, and wise judgment

There is increasing consensus that knowledge is not the same thing as evidence or information. Knowledge is inherently contextual in nature, and results when information is shared, acquired, and used (Schwandt, 2005). There is also an increasing emphasis on the idea of local knowledge, which is created through people's daily interactions in communities of practice (Lave & Wenger, 1991; Stacey, 2001). Researchers have de-emphasized the split between evidence and practice, seeing the generation of knowledge and the use of knowledge as more related than separate in nature (e.g. Wood, 2002; Wood, Ferlie, & Fitzgerald, 1998).

Furthermore, knowledge is not the same thing as wise judgment. Wisdom has been defined as the ability to make the right use of knowledge, the ability to make or advise the 'best' course of action in a given set of circumstances (Csikszentmihalyi & Rathunde, 1998), and also as expertise about the fundamental pragmatics of life (Baltes & Staudinger, 1993). Wise judgment involves the ability to size up and interpret a situation, and to understand what general knowledge, principles, and values should be used in deciding what to do (Schwandt, 2005).

Thus, the key to skill in complex human activities, such as clinical practice, is in understanding and correctly judging situations (Manley & Garbett, 2000). Well-informed clinical decision making is at the heart of optimal clinical practice (Higgs & Jones, 2000). In everyday encounters, practitioners must decide how and when to draw on research knowledge, in combination with an understanding of client needs, awareness of institutional and personal resources and constraints, and a sense of what it means to be a good practitioner on the occasion in question (Schwandt, 2005).

Evidence-based and research-informed practice

There is growing consensus across the knowledge translation literature in psychology, medicine, occupational therapy, AAC, and speech-language pathology are acknowledging that evidence-based practice (EBP) should be defined in a broad and multifaceted way. Broad definitions of EBP incorporate the consideration of clinical experience, judgment, and clinical knowledge (i.e. knowledge gained through practice).

EBP can be defined as the integration of the best available research evidence with clinical practice (or clinical expertise) in the context of client (and family and other stakeholder) characteristics, culture, values, resources, and preferences (American Psychological Association Presidential Task Force on Evidence-Based Practice, 2006; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000; Schlosser & Raghavendra, 2003; Schwandt, 2005; Walter, Nutley, Percy-Smith, McNeish, & Frost, 2004). There are three main aspects of this definition: (a) a contextual view of knowledge and the decision-making process; (b) recognition that research evidence is but one input into decisions; and (c) recognition that different types of evidence and knowledge are obtained from systematic enquiry than from experience and practice.

In health services research, there has been a movement away from the term "evidence-based practice" toward the notion of "evidence-informed decision making" (Canadian Health Services Research Foundation, 2006) to reflect the reality that characteristics of decision makers (e.g., values such as consistency and equity) and the decision making context (e.g., consideration of implications of actions, the need to make quick decisions) play a role in addition to the three cornerstones of EBP (i.e., research evidence, stakeholder perspectives, and clinical expertise). The notion of "evidence-informed decision making" therefore takes into account characteristics, proclivities, and pressures that face the decision maker, encompasses

managerial decision making (in addition to clinical decision making), and views decision making as a social process.

“Research-informed practice” is a broader concept that builds on the notion of evidence-informed decision making by highlighting the importance of the enlightenment brought to the decision-making process not just by evidence generated from systematic enquiry, but also by concepts and frameworks generated through the research process (King, McDougall, & Russell, 2000). “Research-informed practice” therefore refers to a broad orientation or approach to clinical and managerial practice in which decision making is seen as involving the simultaneous consideration of research knowledge, clinical knowledge, client characteristics and preferences, personal and organizational values, and political and resource considerations (Schwandt, 2005; Walter *et al.*, 2004). In research-informed decision making, there is (a) an awareness of the varied uses of both research-generated facts and concepts/frameworks, and the proper role of these in decision making (Champagne, 1999); (b) an understanding that research information can help people identify and formulate problems as well as make good decisions (Ovretveit, 1998; Weiss, 1977); and (c) an appreciation of the benefits that result when managers and therapists examine their assumptions, articulate their values, and use an evaluative, problem solving mind-set to guide their thinking about an issue or problem (King *et al.*, 2000; Schwandt, 2005).

Practice-relevant research

Practice-relevant research investigates the experiences and processes relevant to clinical practice. When service providers engage in practice-relevant research, they develop research-related knowledge and skills, and gain practice-relevant knowledge, both of which are important proximal goals related to the ultimate goal of generating research-informed practice and policy (King, Currie, Smith, Servais, & McDougall, 2008).

Practice-relevant research focuses on obtaining information about the process, content, and structure of the knowledge of two parties—the client (i.e. child and family) and the practitioner. Practice-relevant research encompasses understanding the experiences of families of children with disabilities and the outcomes they desire (Miller, Duncan, & Hubble, 2004; Moore, 2006), as well as the contextualized knowledge and clinical wisdom of practitioners (Orlinsky *et al.*, 1999).

FAMILY-CENTERED SERVICE

The literature on family-centered service is a good example of practice-relevant research, providing a good starting place for understanding how to work effectively with families. This literature addresses the importance to families of partnership and enablement, respect and trust, and the provision of information and coordinated and comprehensive care over time (Rosenbaum, King, Law, King, & Evans, 1998). There is extensive literature on client-centered and family-centered care and service that outlines how clients and their families want to be treated in the service-delivery process (e.g. Moore & Larkin, 2006; Rosenbaum *et al.*, 1998; Sumsion & Law, 2006). The focus of this literature is on the behaviors of practitioners and the interpersonal interaction between clients and practitioners.

Family-centered service and AAC

AAC has been described as being too child-focused and not focused enough on the family (Angelo *et al.*, 1995; Henderson, Skelton, & Rosenbaum, 2008). Relatively little has been explicitly written about family-centered service in the AAC field, and only a few studies have directly explored the perspectives of parents of children with little or no functional speech (e.g. Angelo *et al.*, 1995; Bailey, Parette, Stoner, Angell, & Carroll, 2006; Goldbart & Marshall, 2004; McNaughton *et al.*, 2008). Instead, the AAC literature touches on the importance of service elements that underlie the notion of family-centered service. For example, some authors have considered what parents expect from AAC (Bailey *et al.*, 2006; Parette & Angelo, 1996) and have stressed the importance of parental involvement (Crais, 1991).

The AAC literature on the wants and desires of families also speaks to the importance of family-centered service-delivery principles. Families want to be respected as experts regarding their children (Bailey *et al.*, 2006), which is a fundamental aspect of family-centered service (Dunst, Trivette, & Deal, 1994; Rosenbaum *et al.*, 1998). Families desire involvement in the entire and ongoing process of AAC intervention and decision making (Bailey *et al.*, 2006), although this does not always occur (Goldbart & Marshall, 2004; Parette & Angelo, 1996). Furthermore, some families report feeling that they need to push to get what they want from AAC intervention (Goldbart & Marshall, 2004).

Together, these articles provide a strong message about the importance of a family-centered approach to service delivery for children with little or no functional speech.

Moving beyond family-centered service

The philosophy of family-centered service provides a general sense of direction, but does not include enough detailed, practical information about what therapists need to know and do in order to work effectively with families. An aspect of service delivery not well covered by a family-centered perspective is understanding the worldviews, beliefs, and priorities of family members (King, 2008b). As well, there is a need to integrate family-centered practice philosophy with an emerging view of the approaches, procedural knowledge, and core skills that expert practitioners use to deliver services effectively (King, 2008b; King, 2008c).

There are, therefore, two types of practice-based knowledge that provide important information about how to work effectively with families. The first is information about clients and their families. What do families want and need from services? What are their psychosocial needs? Are there changes over time in what is important to families? The second is information about practitioners. How should they approach practice? What are the values, beliefs, and skills of expert therapists? What strategies do expert therapists use to bring about changes desired by clients and their families? The following sections summarize what is known about family belief systems and expertise in human service delivery.

FAMILY BELIEF SYSTEMS AND FAMILY ADAPTATION TO LIFE WITH A CHILD WITH A DISABILITY

There is a growing (yet still sparse) field of literature on family belief systems. This literature indicates that family worldviews, beliefs, and priorities are associated with family wellbeing and adaptation (e.g. Antonovsky & Sourani, 1988; Hawley & DeHaan, 1996; Kazak *et al.*, 2004). Belief systems provide a sense of meaning in life (Antonovsky, 1984), motivation or purpose to life (Glantz & Johnson, 1999), and hope or optimism in the face of adversity (Glantz & Johnson, 1999; King *et al.*, 2003; Wright, 1983). The literature on family wellbeing has focused on issues of stress and coping. Recently, however, there been consideration of positive psychological concepts (Seligman & Csikszentmihalyi, 2000), such as family adaptation and resilience (e.g. Walsh, 2003), and consideration of the positive contributions made by children with disabilities to family life (e.g. Scorgie, Wilgosh, & McDonald, 1999).

How belief systems operate and influence the lives of children and families is an important but seldom-addressed issue (Ransom, Fisher, & Terry, 1992).

Articles often stress the importance of understanding family beliefs, including cultural worldviews, spiritual beliefs, and beliefs about how to best bring about desired changes; however, few studies have directly examined whether and how families change over time in their worldviews and priorities (Hastings & Taunt, 2002). In addition, little is known about the specific nature of the beliefs of families of children with chronic disabilities—the beliefs that reflect their views of the world, their conception of themselves as a family, and how they approach life's opportunities and challenges.

Recent qualitative studies of the belief systems of families of children with autism or Down syndrome indicate that raising a child with a disability can be a life-changing experience that spurs families to examine their belief systems (King, Baxter, Rosenbaum, Zwaigenbaum, & Bates, in press; King *et al.*, 2006). Raising a child with a disability can cause parents to re-examine their values and redefine them outside of societal norms. Parents may come to value cooperation over competition, connectedness over independence, and a sense of 'being' or living in the moment over a future-oriented approach to life.

Parents can, therefore, gain a sense of coherence and control over their lives through changes in their worldviews, values, and priorities, which involve different ways of thinking about their child, their parenting role, and the role of the family (King *et al.*, 2006). Parents' experiences indicate the importance of hope and of seeing possibilities ahead. Although parents may grapple with lost dreams, over time positive adaptations can occur, involving changed worldviews on life and disability and an appreciation of the positive contributions made by children to the family and society as a whole.

As a result of their experiences, parents may come to be more certain about what matters. They may adopt perspectives of optimism, acceptance, and appreciation, and of striving to change the environment or to meet their child's needs as well as possible (King *et al.*, in press). These perspectives provide parents with a sense of hope and control over their situations, and an appreciation for what they have in life.

Clinically useful information is provided by studies that examine how a parent's understanding of what it means to parent a child with a disability evolves over time. Service providers can use this practice-relevant knowledge in several ways: (a) to ascertain the perspectives and priorities of particular families (since this knowledge indicates what is typically attended to by families); (b) to engage families in the intervention process (by showing understanding of their needs and issues); (c) to sensitively tailor

recommendations and services to meet family situations, concerns, and preferences; (d) to engage in anticipatory guidance and proactive planning with families; and (e) to provide strengths-based or resilience-oriented services and supports to families (which fosters family empowerment and capacity by encouraging hope and strengthening family bonds) (Walsh, 2003). Thus, understanding and respecting the perspectives and belief systems of families of children with disabilities is essential for the development of effective working relationships with families and the implementation of effective service delivery (Danseco, 1997).

The AAC literature on the importance of understanding family perspectives and priorities

The AAC literature indicates that effective service delivery requires an understanding of family needs, priorities, and preferences (Angelo, 2000). Since the goal of AAC intervention is to promote child and family participation in meaningful activities (Beukelman & Mirenda, 2005), the family's 'meaning' and values must be understood. According to Crais (1991), practitioners should determine how they can be meaningfully involved and helpful in families' lives, rather than focusing on how to involve families in existing interventions. This broader approach entails backing up from a focus on implementation, and directing attention instead to understanding the family situation through exploration and discussion with the family. Seeking situational understanding is a key skill in clinical practice and other complex endeavors.

The AAC literature also stresses the importance of understanding the family's cultural background and traditions, which influence communication and decision-making processes in the home (Vanbiervliet & Parette, 2002). Cultural preferences for speed and intimacy in communication influence whether family members perceive AAC devices to be useful for interactions with their children (McCord & Soto, 2004). The AAC literature also highlights the importance of determining the most effective way to adapt professional interpretations and recommendations to the value systems and life circumstances of families so that the most appropriate solutions and selection of devices are made (Parette, Huer, & Brotherson, 2001).

The demands of AAC on families

Compared with other pediatric rehabilitation interventions, AAC interventions can have a significantly and qualitatively different level of impact on family life. Practitioners need to be aware of the technical, financial, role, and time demands that the use

of AAC devices and strategies place on families (Angelo *et al.*, 1995; Angelo, 2000; Goldbart & Marshall, 2004). These demands influence whether parents support their child's use of AAC interventions across various environments (Bailey *et al.*, 2006).

Studies suggest that practitioners may not fully understand the perspectives of families of children who need or use AAC assistance. Parents report that their roles and responsibilities increase following the acquisition of AAC devices (Angelo, 2000; Goldbart & Marshall, 2004). Consequently, device abandonment is a serious issue in the field, requiring further investigation (Johnson, Inglebret, Jones, & Ray, 2006; Phillips & Zhao, 1993).

The issues involved in device abandonment are complex, but in essence appear to involve client-practitioner relationship issues and issues of lack of fit with the family context. Device abandonment has been linked to relationship-related factors, such as families not feeling heard or supported by practitioners, parents not feeling like partners in decision making (Parette, Brotherson, & Huer, 2000), and discrepancies between the views of families and practitioners (Angelo *et al.*, 1995). Differing concerns or priorities of families and practitioners can result in unsuccessful AAC outcomes, child and family dissatisfaction, and parent-practitioner discord (Beukelman & Mirenda, 2005).

The family context also plays a role, as device abandonment can result from a lack of fit between device usage, family belief systems, family routines, and the demands of everyday life (Parette & Angelo, 1996). The pressures, frustrations, and sense of burden associated with AAC systems can cause parents to give up AAC devices (Jones, Angelo, & Kokoska, 1998). In addition, parents' perceptions of the social acceptability of devices can affect their use in the community (Angelo, Kokoska, & Jones, 1996).

In conclusion, the AAC literature indicates the fundamental importance of knowing family priorities with respect to communication and the use of AAC devices and strategies, as this knowledge drives the success of AAC intervention and the satisfaction of families with the service-delivery process. The AAC field would seem to benefit from a broadened view of the client-practitioner relationship and the psychosocial factors that influence the acceptance and adoption of AAC, including recognition of the importance of careful consideration of family perspectives and situations, including their hopes and expectations, as specified in a relational goal-oriented model of service delivery (King, 2008b; King, 2008c).

EXPERTISE IN CLINICAL DECISION MAKING

Practice-relevant information is also needed about the clinical understandings of service providers. According to Schwandt (2005), practice changes as service providers develop new forms of understanding about themselves and clients, and when they change their sensibilities and sensitivities, and their responsiveness and receptivity, towards situations. There is much to be learned by understanding how highly skilled or expert therapists think.

Our program of research on expertise has been guided by a multifaceted definition of expertise, developed from a review of the literature on expertise in psychology, education, medicine, nursing, physical therapy, and occupational therapy. We defined 'expertise' as the ability to show appropriate, exceptional, or adaptive performance or behavior in response to a situation that contains a degree of unpredictability or uncertainty (King, Bartlett *et al.*, 2008; King *et al.*, 2007). Expertise is, therefore, the ability to do the right thing at the right time (Dorner & Scholkopf, 1991). This concept of expertise has parallels with the notion of clinical wisdom, which entails pragmatism, flexibility, and complexity of approach to decision making (Baltes & Staudinger, 2000; Csikszentmihalyi & Rathunde, 1998).

Expertise is a key construct in many professions, including professional psychology and mental health, counseling, medicine, nursing, and education. Little work has been done on expertise in the allied health professions, including speech-language pathology (King, Bartlett *et al.*, 2008). A review of the main concepts of 'expertise' across various fields of literature indicates that it is a multifaceted concept consisting of knowledge, personal qualities and characteristics, skills and abilities, experience, reputation, and superior outcomes (King, Bartlett *et al.*, 2008). Expertise is not just about having technical know-how or good interpersonal skills. It also involves the development of self-awareness, the ability to provide family-centered service, and the development of a sound understanding of how to maximize the likelihood of change in children and families (King *et al.*, 2007). Practitioners require strong relationship skills and intervention management skills, so that clients feel engaged in the intervention process, perceive interventions to be manageable and feasible, and feel in control of the clinical decision-making process (King, 2008b). Clients and families may choose to be more or less involved in decision making; they are, therefore, in control, in that they decide on the level of their involvement.

Changes in knowledge associated with developing expertise

With developing expertise, therapists engage in more complex thought in three areas: content knowledge, self-knowledge, and procedural knowledge (King *et al.*, 2007). With respect to content knowledge, therapists with higher levels of expertise espouse and display a supportive, educational, holistic, functional, and strengths-based approach. Experts in all professional disciplines have been shown to have a broad approach to practice (Dorner & Scholkopf, 1991; Skovholt, Jennings, & Mullenbach, 2004). Expert pediatric-rehabilitation therapists see their role as facilitators of change; this role encompasses educating, supporting, and facilitating a sense of empowerment in children and families (i.e. providing them with information, emotional support, and resources, and encouraging their sense of control over their circumstances) (King *et al.*, 2007).

With respect to self-knowledge, therapists with higher levels of expertise display humility about their role, related to a growing openness to experience and more realistic expectations about their ability to ensure appreciable, large-scale outcomes for clients. At the same time, expert therapists have a greater sense of confidence in the therapy process. They trust that things will evolve in an appropriate and effective way, are more confident in admitting that they do not know all the answers, and are more comfortable in working with parents who have different points of view or who disagree with their recommendations (King *et al.*, 2007).

With respect to procedural knowledge, therapists with higher levels of expertise have a greater understanding of how to do things and why. Expert therapists are able to attend simultaneously to short-term, mid-term, and long-term client goals (King *et al.*, 2007). They create optimal conditions for change by creating an intervention atmosphere that engages the child and family, and in which the plan and interventions make sense and are manageable. They use the principles of engagement, coherence, and manageability so that clients feel confident in being involved in the process, find the interventions to be meaningful and relevant, and feel confident in being able to play a role in bringing about the changes they desire (King *et al.*, 2007).

Strategies to bring about change

Therapists who have higher levels of expertise use a broad array of enabling and customizing strategies to develop strong relationships with clients and assist them in achieving their goals (King *et al.*, 2007). Enabling and customizing are two main approaches to intervention, which have been discussed

extensively in the literature (King, 2003). Enabling strategies are relationship-oriented strategies that empower and provide a sense of control, whereas customizing strategies involve matching the intervention to the unique goals and needs of each child and family and ensuring the appropriateness of services and interventions. Customizing strategies are 'focusing', 'pacing', and 'narrowing' strategies related to providing practical or instrumental support to clients so that they are able to reach goals.

One example of an enabling strategy is 'understanding the client'. This involves 'putting the pieces together', getting a sense of the client, gauging the client's readiness to be involved in bringing about change, and knowing where to 'meet' the client. These aspects reflect the expert practitioner's recognition of the fundamental importance of taking time to understand family situations, concerns, priorities, and preferences as fully as possible, before beginning to conceptualize the direction of the intervention approach. Experts spend more time constructing a mental model or analysis of a situation than do novices (Phillips, Klein, & Sieck, 2004). They take time to understand the perspectives of all involved stakeholders, by assessing, asking questions, listening, and observing. Care and time are required to obtain a sense of each family's unique set of beliefs, and to be sensitive to how parents view their family situation and the realities of their everyday lives (Moore & Larkin, 2006).

The issue of what 'listening' is and what it entails is extremely important in developing situational understanding. Mindful listening ensures that practitioners appreciate the uniqueness of each family and of each family's situation. Relatively inexperienced therapists may not know how to listen, what to listen for, or how to create a respectful, supportive, and encouraging environment that is conducive to effective dialogue and communication. These are skills that develop over time, based on growing awareness of the importance of developing a strong relationship with families; growing skill in ascertaining people's underlying beliefs, motivations, and concerns; growing awareness of one's own strengths, beliefs, and skills; and increasing knowledge of strategies to support people in bringing about their desired changes (Duncan, Hubble, & Miller, 2006; King *et al.*, 2007; McWilliam, Tocci, & Harbin, 1998).

The expertise-development process

The literature indicates that there are three main strategies by which to facilitate the learning process that leads to the development of competence and expertise: (a) personal experience to develop skills

and knowledge (personal-level strategies); (b) the provision of supports and resources (person-environment 'fit' strategies); and (c) workplace opportunities (environmental strategies) (King, 2008a). Together, these strategy groups provide a comprehensive understanding of how to facilitate the experiential, instructional, and observational learning of practitioners.

Personal, self-directed strategies include seeking opportunities for challenging experiences (Kendall, 1999), engaging wholeheartedly in deliberate practice (Guest, Regehr, & Tiberius, 2001), obtaining feedback through self-reflection or from others (Jennings & Skovholt, 1999), and reflecting on what this feedback means for performance and self-knowledge (Schon, 1983). The second group of strategies consists of support and resources: tools for self-assessment, feedback, and reflection (e.g. Johns, 1995); frameworks and models outlining how expert therapists think, and the nature of the changes that occur along the trajectory towards expertise; prototypes and exemplars of expert characteristics (Skovholt *et al.*, 2004); and coaching and mentoring (Dracup & Bryan-Brown, 2004). The third group of strategies consists of environmental opportunities or features of work settings, such as ensuring complex and challenging caseload experiences and providing structured formal opportunities such as opportunities to take on mentoring roles and opportunities for dialogue and reflection.

Practitioner skills highlighted in the AAC literature

Not surprisingly, the AAC literature discusses the importance of several skills that are known from the broad literature on therapist expertise to be relevant to working effectively with families. The skills required to work effectively with the families of children with little or no functional speech include relationship skills (listening, partnership building, counseling, consultation, collaboration, etc.) and intervention management skills (consensus building, decision making, goal setting, etc.) (Beukelman & Mirenda, 2005; King, 2008c). Parent-practitioner partnerships are seen as crucial in AAC (Berry, 1987), indicating the importance of effective teaming skills and the ability to engage the child and family in goal-setting and problem-solving. The ASHA document on knowledge and skills for service delivery (American Speech-Language-Hearing Association, 2002) outlines the minimum skills necessary to deliver a continuum of AAC services. Most of these skills are discipline-specific and technical in nature, but the document also mentions the importance of effective teaming skills and

collaboration to ensure that the services provided are responsive to the needs and desires of AAC users.

The heightened demands on families arising from the implementation of AAC devices and strategies call for particular skills in practitioners. The AAC literature indicates that parents want greater sensitivity and understanding from practitioners (Jones *et al.*, 1998; Parette *et al.*, 2000). Consequently, practitioners need to be mindful of the stress that can be imposed with the introduction of AAC interventions (Parette & Angelo, 1996). The demands that AAC interventions place on family life and parents' time and resources mean that therapists must be sensitive to family needs and take care to ensure that parents do not feel overwhelmed. Practitioners need to develop empathy and observational skills, which will allow them to develop effective working partnerships with parents, recognize demands on parents, and know when to reduce expectations (Goldbart & Marshall, 2004). The AAC literature also indicates that practitioners should be flexible in striving to meet changing family needs, and should provide needed support based on an understanding of each family's knowledge, ability, and willingness to be involved in decision making and intervention (Goldbart & Marshall, 2004). Practitioners need to give permission to families to say 'no' and need to be creative in suggesting strategies that do not impose too many demands.

The AAC literature, therefore, highlights the nature of the skills that parents desire in the individuals who provide them with services. There is much to be gained by incorporating an understanding of family perspectives and situations, and of the expertise-development process, into AAC clinical practice and professional development. AAC practice will be enhanced by an explicit consideration of the psychosocial factors that shape the perspectives of the two key players in the human service delivery process—clients and practitioners. In the following section, we link the client perspective with what is known about practitioner expertise to extract key features of how to work effectively with families.

EXPERTISE IN WORKING EFFECTIVELY WITH FAMILIES

It requires expertise to build the enabling client-practitioner relationship that is the basis of change (to understand what motivates children and parents, to truly hear what families are saying, to know what to listen for) and to plan customized interventions to meet the needs, values and worldviews of families. The fundamental characteristics of expertise are, therefore, the sincere recognition of the importance

of enablement (i.e. a family-centered approach) and of tailoring intervention to fit in with family worldviews and priorities. In fact, expertise has in the past been explicitly defined as involving the consideration of client worldviews (American Psychological Association Presidential Task Force on Evidence-Based Practice, 2006).

In essence, working effectively with families involves placing the family at the center of the universe (Summers, Behr, & Turnbull, 1989), where therapists are the supporting cast and families are the main players (Duncan *et al.*, 2006). Expert therapists employ a number of approaches and strategies that dovetail with family needs. They employ a strengths-based approach to meet family needs for hope and to envision possibilities for a more positive future. They focus on appreciating family needs and issues, so that family members feel understood and have their concerns validated (and ultimately addressed). They address the priorities of families, and they work on what is meaningful to families, so that parents have a sense of control and coherence.

In these ways, expert therapists strive to meet the fundamental psychosocial needs of parents, which involve 'doing', 'belonging', and understanding the self and the world (Cohn, 2001; King, 2004). All individuals gain a sense of meaning in everyday life by making meaningful contributions (doing), by feeling loved (belonging), and by living in a world that makes sense (understanding). Maslow (1954) talked about various types of needs, including the need for self-actualization (self-esteem), needs for belongingness and love, and the need to know and understand. Families want coherence in their lives—they want comprehensibility, manageability, and meaningfulness (Antonovsky, 1984), and this is what expert therapists strive to provide.

How do expert practitioners place the family at the center of the universe? How do they keep the needs of families at the forefront of their thinking and intentions? The answer lies in three main aspects of therapists' skills—breadth of perspective, sensitivity, and meta-cognitive ability. Expertise in working effectively with families involves (a) a broad view of the scope of practice, (b) sensitivity to the situations, issues, concerns, priorities, and preferences of children and their families, and (c) meta-cognitive ability and confidence gained through well-developed procedural knowledge. A broad view of practice entails seeing a range of health concerns as relevant to practice (including issues of impairment, functioning, participation, and adaptation or quality of life), paying attention to parent/family outcomes as well as child outcomes, and considering the short-term, mid-term, and long-term

goals of intervention efforts (King, 2008b). A sensitive approach to practice involves seeking to understand family perspectives and situations, appreciating differences, and displaying an empathetic and nonjudgmental approach (McWilliam *et al.*, 1998). A confident approach to practice is based on knowing what to do when, how to facilitate change and adaptation, how to customize approaches, and how to enable clients to make informed decisions.

WORKING EFFECTIVELY WITH FAMILIES IN DELIVERING AAC SERVICES

The specialized nature of AAC makes the partnership with families especially critical, as AAC places high expectations and demands on parents and other family members as communication partners, supporters, facilitators, educators, and advocates, so that the voices of children are heard. AAC device/strategy recommendation and implementation is a remarkably complex area of professional practice, in which it is crucial to be aware of family perspectives and situations, and to understand the strategies by which expert therapists facilitate successful interactions and outcomes. Working effectively with families involves understanding what families want and expect from AAC services, being aware of and sensitive to their situations and perspectives, and striving to meet their needs, preferences, and priorities.

Although the AAC literature considers the needs and desires of families, there is relatively little literature on the nature and development of the skills of expert AAC therapists and on the perspectives of parents of children with little or no functional speech. The AAC literature recognizes the importance of the parent–practitioner relationship, of parental engagement in the intervention process, and of considering the demands that the implementation of AAC places on families. AAC intervention will benefit from continuing therapist efforts to strengthen the client–practitioner relationship (through greater understanding and appreciation of family situations, perspectives, and life circumstances) and customize intervention strategies (in order to optimize clients’ sense of control, meaningfulness, and engagement).

This article began by endorsing a broad definition of ‘research-informed practice’, which highlighted the importance of considering family perspectives and situations and the role played by therapist expertise. The simultaneous consideration, in everyday clinical practice, of evidence, professional values, political considerations, and individualized goals

(Sanderson, 2003) requires the broad orientation to practice that expert therapists display. Research-informed decision making is enhanced by systematic enquiry into the nature of what families want in life and from AAC services, and how practitioners who have developed high levels of expertise strive to meet these expectations and needs. Research-informed practice will be enhanced by attention to lines of enquiry that address the experiences of the key players in the service delivery process—therapists, children, and their families. “If we want more evidence-based practice, we need more practice-based evidence” (Green & Glasgow, 2006, p. 126).

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REFERENCES

- American Psychological Association Presidential Task Force on Evidence-Based Practice. (2006). Evidence-based practice in psychology. *American Psychologist*, 61, 271–285.
- American Speech–Language–Hearing Association. (2002). *Augmentative and alternative communication: Knowledge and skills for service delivery*. Retrieved June 25 2008, from www.asha.org/policy
- Angelo, D., Jones, S., & Kokoska, S. (1995). Family perspective on augmentative and alternative communication: Families of young children. *Augmentative and Alternative Communication*, 11, 193–202.
- Angelo, D. H. (2000). Impact of augmentative and alternative communication devices on families. *Augmentative and Alternative Communication*, 16, 37–47.
- Angelo, D. H., Kokoska, S. M., & Jones, S. D. (1996). Family perspective on augmentative and alternative communication: Families of adolescents and young adults. *Augmentative and Alternative Communication*, 12, 13–22.
- Antonovsky, A. (1984). A call for a new question—salutogenesis—and a proposed answer—the sense of coherence. *Journal of Preventative Psychiatry*, 2, 1–13.
- Antonovsky, A., & Sourani, T. (1988). Family sense of coherence and family adaptation. *Journal of Marriage and the Family*, 50, 79–92.
- Bailey, R. L., Parette, H. P., Stoner, J. B., Angell, M. E., & Carroll, K. (2006). Family members’ perceptions of augmentative and alternative communication device use. *Language, Speech, and Hearing Services in Schools*, 37, 50–60.

- Baltes, P. B., & Staudinger, U. M. (1993). The search for a psychology of wisdom. *Current Directions in Psychological Science*, 2, 1–6.
- Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist*, 55, 122–136.
- Berry, J. O. (1987). Strategies for involving parents in programs for young children using augmentative and alternative communication. *Augmentative and Alternative Communication*, 3, 90–93.
- Beukelman, D. R., & Mirenda, P. (2005). *Augmentative and alternative communication: Supporting children and adults with complex communication needs* (3rd ed.). Baltimore: Paul H. Brookes.
- Champagne, F. (1999, October). *The use of scientific evidence and knowledge by managers*. Paper presented at the Closing the Loop: 3rd conference on the Scientific Basis of Health Care, Toronto, Canada.
- Cohn, E. S. (2001). Parent perspectives of occupational therapy using a sensory integration approach. *American Journal of Occupational Therapy*, 55, 285–294.
- Crais, E. R. (1991). Moving from “parent involvement” to family-centered services. *American Journal of Speech Language Pathology*, 1, 5–8.
- Csikszentmihalyi, M., & Rathunde, K. (1998). The development of the person: An experiential perspective on the ontogenesis of psychological complexity. In R. M. Lerner (Ed.), *Handbook of child psychology. Theoretical models of human development* (5th ed., Vol. 1, pp. 635–684). New York: John Wiley & Sons.
- Dansec, E. R. (1997). Parental beliefs on childhood disability: Insights on culture, child development and intervention. *International Journal of Disability, Development and Education*, 44, 41–52.
- Dorner, D., & Scholkopf, J. (1991). Controlling complex systems; or, expertise as “grandmother’s know-how. In K. A. Ericsson, & J. Smith (Eds.), *Toward a general theory of expertise: Prospects and limits* (pp. 218–239). New York: Cambridge University Press.
- Dracup, K., & Bryan-Brown, C. W. (2004). From novice to expert to mentor: Shaping the future. *American Journal of Critical Care*, 13, 448–450.
- Duncan, B., Hubble, M., & Miller, S. (2006). Stepping off the throne. Retrieved June 25, 2008, from http://www.talkingcure.com/docs/Stepping_off_the_Throne.doc
- Dunst, C.J., Trivette, C.M., & Deal, A.G. (Eds.). (1994). *Supporting and strengthening families, Vol. 1: Methods, strategies and practices*. Cambridge, MA: Brookline.
- Glantz, M. D., & Johnson, J. L. (1999). *Resilience and development: Positive life adaptations*. New York, NY: Kluwer.
- Goldbart, J., & Marshall, J. (2004). “Pushes and pulls” on the parents of children who use AAC. *Augmentative and Alternative Communication*, 20, 194–208.
- Green, L. W., & Glasgow, R. E. (2006). Evaluating the relevance, generalization, and applicability of research: Issues in external validation and translation methodology. *Evaluation and the Health Professions*, 29, 126–153.
- Guest, C. B., Regehr, G., & Tiberius, R. G. (2001). The life long challenge of expertise. *Medical Education*, 35, 78–81.
- Hammer, C. S. (1998). Toward a “thick description” of families: Using ethnography to overcome the obstacles to providing family-centered early intervention services. *American Journal of Speech Language Pathology*, 7, 5–22.
- Hastings, R. P., & Taunt, H. M. (2002). Positive perceptions in families of children with developmental disabilities. *American Journal on Mental Retardation*, 107, 116–127.
- Hawley, D. R., & DeHaan, L. (1996). Toward a definition of family resilience: Integrating life-span and family perspectives. *Family Process*, 35, 283–298.
- Henderson, S., Skelton, H., & Rosenbaum, P. (2008). Assistive devices for children with functional impairments: impact on child and caregiver function. *Developmental Medicine and Child Neurology*, 50, 89–98.
- Higgs, J., & Jones, M. (2000). Clinical reasoning in the health professions. In J. Higgs, & M. Jones (Eds.), *Clinical reasoning in the health professions* (2nd ed., pp. 3–14). Oxford: Butterworth Heinemann.
- Huer, M. B., & Lloyd, L. (1990). AAC users perspectives on augmentative and alternative communication. *Augmentative and Alternative Communication*, 6, 242–249.
- Jennings, L., & Skovholt, T. M. (1999). The cognitive, emotional, and relational characteristics of master therapists. *Journal of Counseling Psychology*, 46, 3–11.
- Johns, C. (1995). Framing learning through reflection within Carper’s fundamental ways of knowing in nursing. *Journal of Advanced Nursing*, 22, 226–234.
- Johnson, J., Inglebret, E., Jones, C., & Ray, J. (2006). Perspectives of speech language pathologists regarding success versus abandonment of AAC. *Augmentative and Alternative Communication*, 22, 85–99.
- Jones, S., Angelo, D., & Kokoska, S. (1998). Stressors and family supports: Families with children using augmentative and alternative communication technology. *Journal of Children’s Communication Development*, 20, 37–44.
- Kazak, A. E., McClure, K. S., Alderfer, M. A., Hwang, W., Crump, T. A., Le, L. T., et al. (2004). Cancer-related parental beliefs: The family illness beliefs inventory (FIBI). *Journal of Pediatric Psychology*, 29, 531–542.
- Kendall, S. F. (1999). Identifying outstanding clinical nurses: The ‘star’ shines in oncology. *Nursing and Health Sciences*, 1, 113–123.
- King, G. (2003). “Best approaches” in pediatric rehabilitation: *Intervention principles for service providers* (Focus On, Vol. 3, Issue 3). London, ON: Research Alliance for Children with Special Needs.
- King, G. (2008a). *A framework of personal and environmental learning-based strategies to foster therapist expertise*. Manuscript submitted for publication.
- King, G. (2008b). *A relational goal-oriented model of optimal service delivery to children and families: Conceptual basis*. Manuscript submitted for publication.
- King, G. (2008c). *A relational goal-oriented model of optimal service delivery to children and families: Elements and application*. Manuscript submitted for publication.
- King, G., Bartlett, D. J., Currie, M., Gilpin, M., Baxter, D., Willoughby, C., et al. (2008). Measuring the expertise of pediatric rehabilitation therapists. *International Journal of Disability, Development and Education*, 55, 5–26.
- King, G., Baxter, D., Rosenbaum, P., Zwaigenbaum, L., & Bates, A. (in press). The worldviews, values, and priorities of families of children with autism or Down syndrome. *Focus on Autism and Other Developmental Disabilities*.
- King, G., Currie, M., Bartlett, D., Gilpin, M., Willoughby, C., Tucker, M. A., et al. (2007). The development of expertise in pediatric rehabilitation therapists: Changes in approach, self-knowledge, and use of enabling and customizing strategies. *Developmental Neurorehabilitation*, 10, 223–240.
- King, G., Currie, M., Smith, L., Servais, M., & McDougall, J. (2008). A framework of operating models for interdisciplinary research programs in clinical service organizations. *Evaluation and Program Planning*, 31, 160–173.
- King, G., McDougall, J., & Russell, D. (2000). *Rethinking the use of research knowledge and evidence by therapists and managers in pediatric rehabilitation*. London, ON: Thames Valley Children’s Centre.
- King, G. A. (2004). The meaning of life experiences: Application of a meta-model to rehabilitation sciences and services. *American Journal of Orthopsychiatry*, 74, 72–88.

- King, G. A., Zwaigenbaum, L., King, S., Baxter, D., Rosenbaum, P., & Bates, A. (2006). A qualitative investigation of changes in the belief systems of families of children with autism or Down syndrome. *Child: Care, Health and Development*, 32, 353–369.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Light, J., & Drager, K. (2007). AAC technologies for young children with complex communication needs: State of the science and future research directions. *Augmentative and Alternative Communication*, 23, 204–216.
- Lund, S. K., & Light, J. (2007). Long-term outcomes for individuals who use augmentative and alternative communication: Part II—communicative interaction. *Augmentative and Alternative Communication*, 23, 1–15.
- Manley, K., & Garbett, R. (2000). Paying Peter and Paul: Reconciling concepts of expertise with competency for a clinical career structure. *Journal of Clinical Nursing*, 9, 347–359.
- Maslow, A. (1954). *Motivation and personality*. New York: Harper.
- McCord, M. S., & Soto, G. (2004). Perceptions of AAC: An ethnographic investigation of Mexican-American families. *Augmentative and Alternative Communication*, 20, 209–227.
- McNaughton, D., Rackensperger, T., Benedek-Wood, E., Krezman, C., Williams, M. B., & Light, J. (2008). “A child needs to be given a chance to succeed”: Parents of individuals who use AAC describe the benefits and challenges of learning AAC technologies. *Augmentative and Alternative Communication*, 24, 43–55.
- McWilliam, R. A., Tocci, L., & Harbin, G. L. (1998). Family-centred services: Service providers’ discourse and behavior. *Topics in Early Childhood Special Education*, 18, 206–221.
- Miller, S.D., Duncan, B.L., & Hubble, M.A. (2004). Beyond integration: The triumph of outcome over process in clinical practice. *Psychotherapy in Australia*, 10, 32–41, 73–80.
- Moore, T. (2006, March). *Starting with the end in mind: Outcomes in early childhood intervention and how to achieve them*. Paper presented at the Early Childhood Intervention Australia’s 7th National Conference, Adelaide.
- Moore, T. G., & Larkin, H. (2006). “More than my child’s disability”: A comprehensive review of family-centred practice and family experiences of early childhood intervention services. Melbourne, Victoria: Scope (Vic) Inc.
- Orlinsky, D., Ambuhl, H., Ronnestad, M. H., Davis, J., Gerin, P., Davis, M., et al. (1999). Development of psychotherapists: Concepts, questions, and methods of a collaborative international study. *Psychotherapy Research*, 9, 127–153.
- Ovretveit, J. (1998). Medical managers can make research-based management decisions. *Journal of Management in Medicine*, 12, 391–397.
- Parette, H. P., & Angelo, D. H. (1996). Augmentative and alternative communication impact on families: Trends and future directions. *Journal of Special Education*, 30, 77–98.
- Parette, H. P., Brotherson, M. J., & Huer, M. B. (2000). Giving families a voice in augmentative and alternative communication decision-making. *Education and Training in Mental Retardation and Developmental Disabilities*, 35, 177–190.
- Parette, H. P., Huer, M. B., & Brotherson, M. J. (2001). Related service personnel perceptions of team AAC decision-making across cultures. *Education and Training in Mental Retardation and Developmental Disabilities*, 36, 69–82.
- Phillips, B., & Zhao, H. (1993). Predictors of assistive technology abandonment. *Assistive Technology*, 5, 36–45.
- Phillips, J. K., Klein, G., & Sieck, W. R. (2004). Expertise in judgment and decision making: A case for training intuitive decision skills. In D. J. Koehler, & N. Harvey (Eds.), *Handbook of judgment and decision making* (pp. 297–315). Oxford, UK: Blackwell.
- Robinson, N. B., & Sadao, K. C. (2005). Person-focused learning: A collaborative teaching model to prepare future AAC professionals. *Augmentative and Alternative Communication*, 21, 149–163.
- Rosenbaum, P., King, S., Law, M., King, G., & Evans, J. (1998). Family-centred service: A conceptual framework and research review. *Physical and Occupational Therapy in Pediatrics*, 18, 1–20.
- Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (2000). *Evidence-based medicine: How to practice and teach EBM* (2nd ed.). New York: Churchill Livingstone.
- Sanderson, I. (2003). Is it “what works” that matters? Evaluation and evidence-based policy-making. *Research Papers in Education*, 18, 331–345.
- Schlosser, R. W., & Raghavendra, P. (2003). Toward evidence-based practice in AAC. In R. W. Schlosser (Ed.), *The efficacy of augmentative and alternative communication: Toward evidence-based practice* (pp. 259–297). San Diego, CA: Academic Press.
- Schon, D. A. (1983). *The reflective practitioner. How professionals think in action*. New York: Basic Books.
- Schwandt, T. A. (2005). The centrality of practice to evaluation. *American Journal of Evaluation*, 26, 95–105.
- Scorgie, K., Wilgosh, L., & McDonald, L. (1999). Transforming partnerships: Parent life management issues when a child has mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities*, 34, 395–405.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Skovholt, T. M., Jennings, L., & Mullenbach, M. (2004). Portrait of the master therapist: Developmental model of the highly functioning self. In T. M. Skovholt, & L. Jennings (Eds.), *Master therapists: Exploring expertise in therapy and counseling* (pp. 125–146). Boston: Allyn & Bacon.
- Stacey, R. D. (2001). *Complex responsive process in organizations: Learning and knowledge creation*. London: Routledge.
- Summers, J. A., Behr, S. K., & Turnbull, A. P. (1989). Positive adaptation and coping strengths of families who have children with disabilities. In G. H. S. Singer, & L. K. Irvin (Eds.), *Support for caregiving families: Enabling positive adaptations to disability* (pp. 27–40). Baltimore, MD: Paul Brookes.
- Vanbiervliet, A., & Parette, H. P. (2002). Development and evaluation of the Families, Cultures and Augmentative and Alternative Communication (AAC) multimedia program. *Disability and Rehabilitation*, 24, 131–143.
- Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process*, 42, 1–18.
- Walter, I., Nutley, S., Percy-Smith, J., McNeish, D., & Frost, S. (2004). *Knowledge Review 7: Improving the use of research in social care practice*. Bristol: Social Care Institute for Excellence.
- Weiss, C. H. (1977). Introduction. In C. Weiss (Ed.), *Using social research in public policy making* (pp. 1–22). Lexington, MA: D.C. Heath and Company.