Clinical Forum

Related Services Research for Students With Low-Incidence Disabilities: Implications for Speech-Language Pathologists in Inclusive Classrooms

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ABSTRACT: When speech-language pathologists provide educationally related services for students with low-incidence disabilities who are placed in inclusive classrooms, they are asked to work with a variety of other adults. The ways in which these adults make decisions about individualizing a student's educational program, determine related services, and coordinate their activities have an impact on educational outcomes for students as well as on interprofessional interactions. This article summarizes a team process for making related services decisions called VISTA (Vermont Interdependent Services Team Approach) and a series of nine research studies pertaining to the use and impact of VISTA. It also addresses related topics, such as team size, consumer perspectives, and paraprofessional supports. Five major implications from these studies are offered concerning (a) developing a disposition of being an ongoing learner, (b) developing a shared framework among team members, (c) having a research-based process to build consensus, (d) clarifying roles, and (e) increasing involvement of families and general education teachers.

KEY WORDS: related services, decision making, service coordination, research, collaborative teamwork

Collaborative teamwork is well established as one of the most critical components of quality inclusive schooling (McGregor & Vogelsberg, 1998; Stainback & Stainback, 1996; Villa & Thousand, 1995). When a speech-language pathologist serves students with low-incidence disabilities (e.g., autism, deaf-blindness, multiple disabilities, severe intellectual disabilities) in the capacity of a *related services provider* in inclusive classrooms, a couple of points are inescapable. First, several other adults will be involved in the education of these students with disabilities. Among the most common adults are parents, classroom teachers, special educators, paraprofessionals, administrators, and other related services personnel such as physical therapists, occupational therapists, and school psychologists. In some cases, the student with a disability who is a teenager or young adult is in a position to be a self-advocate, and, therefore, is added to the mix of people involved in educational planning, implementation, and evaluation.

The potentially large number of people involved in the team has both advantages and disadvantages. The various perspectives these individuals bring to the task of educating the student can invigorate the process by providing fresh ideas, important knowledge, relevant skills, and valuable resources. On the other hand, involving a variety of people can be akin to having "too many cooks in the kitchen," with the results being both unsatisfying and messy. Our data indicate that for students with low-incidence disabilities, the number of people on a student's educational team often hits double figures, and extensive

turnover from year to year can be problematic if it is not managed well (Giangreco, Edelman, Nelson, Young, & Kiefer-O'Donnell, 1999a).

Second, the challenge of coordinating the contributions of various team members is exacerbated by the fact that the roles and functions traditionally engaged in by speech-language pathologists represent extensive overlap with a variety of other disciplines. For example, parents, general education teachers, and special educators all have primary and ongoing roles in teaching a wide range of communication and language skills. Other disciplines overlap with speech-language pathologists on functions, such as oral-motor issues and feeding skills (occupational therapists), breathing and posture (physical therapists), augmentative/ alternative communication systems and devices (assistive technology specialists, deaf-blind specialists), and manual communication, such as American Sign Language (teachers of students who are deaf).

Given the number of potential team members and their overlapping functions, central questions facing teams are:

- Which disciplines are *necessary* for the student to receive an appropriate education?

- Who should be doing what?

- When does the student need the support of a speech-language pathologist versus more generic support, such as that provided by a general education teacher, special education teacher, peer, or community member?

- When does the student need the support of a different related services provider, such as an occupational therapist, deaf-blind specialist, or assistive technology specialist?

- When is it necessary for related services providers to collaborate with related services providers from different disciplines?

- In cases where the team decides that multiple service providers are necessary, how should the services be coordinated?

Unfortunately, clear, explicit answers to these and related questions are often hard to come by, which can lead to problems for students and families, such as gaps in services, unnecessary overlaps in services, or contradictory service recommendations offered by professionals from various disciplines. Effective decision making, coordination, utilization, and evaluation of educationally related services continues to be an arena of ongoing confusion and great need for many students with disabilities and their families (Rainforth & York-Barr, 1997).

Although there are numerous examples of related services providers offering excellent support services to students with disabilities, too often, related services continue to be provided in ways that:

- do not match the Individuals with Disabilities Education Act (IDEA) definition of related services as *"required to assist a child with a disability to benefit from special education"* (IDEA, 1997, 20 U.S.C. § 1401 (22)),

- are inconsistent with important court rulings that have established precedents concerning educational necessity (Board of Education of the Hendrick Hudson Central School District v. Rowley, 1982; Irving Independent School District v. Tatro, 1984),

- do not coincide with exemplary educational practices (Fox & Williams, 1997; Giangreco, Edelman, Dennis, Rubin, & Thoms, 1999; Meyer & Eichinger, 1994), and

- do not adequately support students with disabilities in general education classes (Giangreco, Prelock, Reid, Dennis, & Edelman, 2000).

Some historically common, yet interfering, practices are listed in Table 1 (Giangreco, Edelman, & Dennis, 1991; Giangreco, Edelman, Luiselli, & MacFarland, 1998). The aforementioned problems highlight the need for models of team interaction that are consistent with exemplary and promising practices across disciplines, which are based on research and are developed and revised based on systematic field testing.

Obviously, educational and related services are offered with positive intentions and are meant to help students with disabilities. Yet our common professional approaches to "helping" can inadvertently have the opposite effects than those that were intended. Schwartz (1997) referred to this phenomenon as "paradoxical counterproductivity." He encouraged us to consider the balance between our professional supports and more natural supports.

Self-advocate Norman Kunc provides one person's poignant perspective on how well-intended services can have lasting, and sometimes detrimental, effects on the

Table 1. Historically common practices that interfere with the provision of educationally necessary related services.

1. Families and school personnel interact with related service personnel as "experts" rather than collaborative team members.
2. Families and general educators have insufficient involvement in related services decision making.
3. Groups of individuals serving the same student do not always function as a team.
4. Typically, no agreed-on team process is used to assist in making related service decisions.
5. Autocratic decisions concerning support services are made by related service providers in isolation without consideration of the interrelationships among the services provided by team members.
6. Each discipline develops separate goals based on discipline-specific assessments rather than developing a set of shared goals.
7. Related service planning, implementation, and evaluation often is unrelated to the educational program.
8. Pullout approaches that do not match the intended educational functions of related services are used.
9. Students are placed in special education schools or classes so they can receive related services rather than being provided services that support them in less restrictive general education programs and placements.
10. Group members often defer to one another rather than risk the potential conflicts associated with openly addressing support services decisions.

people they are supposed to help (Giangreco, 1996a). He suggests that professionals can improve their interactions with people who have disabilities by (a) viewing disability as a form of human diversity rather than a deficiency that needs to be changed, (b) acknowledging that power differentials exist between professionals and their students with disabilities, (c) listening to the stories of people with disabilities, and (d) drawing on one's own experiences and relating them to the experiences of people with disabilities to develop a depth of thought and reflection. For example, a connection could be drawn between one's own experiences being treated in a condescending fashion and the ongoing experiences of people with disabilities being treated in the same way.

Over the 4-year period from October 1994 through 1998, staff and associates of the Related Services Research Project at the Center on Disability and Community Inclusion at the University of Vermont conducted a series of studies designed to address two main issues. First, the project staff studied the use and impact of a team process for making related services decisions called VISTA (Vermont Interdependent Services Team Approach, Giangreco, 1996c), along with an unpublished supplement to VISTA (Giangreco, 1996b). Second, the project studied a variety of contextual factors that would have a potential impact on team decision making, such as team member attitudes, consumer perspectives, and changes in team membership. Nine of these studies are summarized in Table 2.

The purpose of this article is to provide a brief overview of VISTA and discuss implications from the Related Services Research Project's studies. Its purpose is not to review each of the nine studies in depth. Rather, this article draws on this interrelated set of studies in a broader sense to offer data-based implications for speech-language pathologists and other team members supporting the education of students with disabilities in general education classrooms.

OVERVIEW OF VISTA

VISTA is a collaborative team process for determining (a) what related services are needed to support specific components of a student's educational program, (b) the educational relevance and necessity of related services, (c) functions of services, (d) frequency and mode of services (e.g., consult, direct), and (e) location of service provision. The supplement to VISTA (Giangreco, 1996b) includes updated information, procedures, and forms to augment the VISTA manual in between formal revisions.

For those readers who are familiar with the distinctions between multidisciplinary, interdisciplinary, and transdisciplinary models for professional interactions (Giangreco, York, & Rainforth, 1989; Hutchinson, 1978; Orelove & Sobsey, 1996; York, Rainforth, & Giangreco, 1990), VISTA is most closely reflective of a transdisciplinary approach. Yet, it is not identified as transdisciplinary in any of the literature pertaining to it. Rather, it is simply identified as a collaborative teamwork model. VISTA attempts to build

on and extend the transdisciplinary approach by ensuring that (a) there is a single set of shared goals for the student, (b) services are both educationally relevant and necessary, (c) role release is mutually agreed on by the sender and receiver of the consultation or service, and (d) membership is broadened to include parents and individuals with disabilities as integral team members who are acknowledged as having certain knowledge and skill that is valued within the team.

VISTA is based on 10 guidelines that form its conceptual framework. This framework is designed to facilitate effective teamwork and related services decision making to support the education of students with disabilities in general education settings. These 10 guidelines are:

1. Establish and maintain a collaborative team.
2. Define the components of the educational program.
3. Understand the interaction between program, placement, and services.
4. Use a value system for decision making: "only as specialized as necessary."
5. Determine the functions of service providers and their interrelatedness.
6. Apply essential criteria: "educational relevance and necessity."
7. Determine who has authority for decision making: "consensus."
8. Match the mode and frequency of service to the functions served.
9. Determine the location and strategies for service provision.
10. Engage in ongoing implementation and evaluation of support services.

VISTA includes five sets of activities:

1. *General preparation.* This includes steps such as (a) forming a team, (b) learning about team members' skills, (c) getting to know the student, (d) clarifying who are core and extended team members, (d) ensuring that all team members understand the principles on which VISTA is based and are making informed decisions to participate in the process, and (e) discussing team attitudes to assist in the development of a *shared framework.*

2. *Getting ready for the VISTA meeting.* This includes steps such as (a) determining the components of the student's educational program, (b) sharing educational program components with all team members, (c) determining educational placement, and (d) arranging the time, place, and participants for the VISTA meeting.

3. *Using the VISTA worksheet at the VISTA meeting.* This includes steps such as (a) considering what supports can be appropriately provided by the classroom staff; (b) identifying the kind of supports a student needs in order to access or participate in his or her educational program; (c) determining who has the capabilities to provide the supports, which includes consideration of

Table 2. Summary of studies conducted as part of the Related Services Research Project.

Authors and journals	Participants	Research design	Major findings	Limitations
Giangreco (1996a) *Physical Disabilities: Education and Related Services*	One adult self-advocate with cerebral palsy	Semi-structured interview	The impact of services can have lasting effects that shape a person's self-image and future. There are power differentials between professionals and their students. Professionals need to spend more time considering the potential impact of their services on people with disabilities and listen more closely to people with disabilities.	Single case example
Giangreco, Edelman, Luiselli, & MacFarland (1996b) *The Journal of the Association for Persons with Severe Handicaps*	75 educational team members serving 11 students with multiple disabilities (ages 4–20) in general education classes (grades PreK–11)	Quasi-experimental pretest/post-test design with other quantitative analyses	Team agreement about the roles and functions of related services providers increased from approximately 62% to 100% after using VISTA. Individual related services providers changed their stated involvement in a student's educational program by an average of 44% after using VISTA. Significant differences were identified on all eight pretest/post-test variables related to VISTA use for teams (e.g., helped avoid gaps and overlaps; increased family involvement).	Although maturational impact was minimized, by the short interval between pre and post-testing, the participants' responses could be subject to a Hawthorne effect. Facilitators required assistance.
Giangreco, Edelman, MacFarland, & Luiselli (1997) *Exceptional Children*	119 educational team members serving 13 students with multiple disabilities (ages 4–20) in general education classes (grades PreK–11)	Descriptive quantitative study based on questionnaire items pertaining to educational and related services practices for students with disabilities	Mean data from 13 of 20 questionnaire items were congruent with exemplary practices from the professional literature; data from seven items were inconsistent with exemplary practices. ANOVA showed that differences existed between parents and professionals regarding three service provision variables. Data revealed extensive intra-team differences on the majority of variables.	Questionnaire content is subject to idiosyncratic interpretation. Responses may or may not reflect the actual behavior of study participants.
Giangreco, Edelman, Luiselli, & MacFarland (1997) *Exceptional Children*	134 educational team members serving 11 students with multiple disabilities in preschool through grade 11 general class placements with support	Descriptive qualitative study based on 110 observations (2–3 hrs. each) and 40 semi-structured interviews	Instructional assistant proximity resulted in eight problems: (a) interference with ownership by general educators, (b) separation from classmates, (c) dependence on adults, (d) impact on peer interactions, (e) limitations on receiving competent instruction, (f) loss of personal control, (g) loss of gender identity, and (h) interference with instruction of others.	Generalizability is limited due to the modest number of sites, limited geographic distribution, and homogeneity of the students served.
Giangreco, Edelman, Luiselli, & MacFarland (1998) *Special Services in the Schools*	134 educational team members serving 11 students with multiple disabilities in preschool through grade 11 general class placements with support	Multi-site qualitative evaluation of support services before and after using VISTA based on 110 observations (2–3 hrs. each) and 40 semi-structured interviews	Before using VISTA, groups had difficulty functioning as a team, support service decisions were made by specialists in isolation, and parent and classroom teacher involvement was limited. VISTA provided a process for decision making based on shared educational goals; ensured that supports were educationally relevant and necessary; helped avoid gaps, overlaps, and contradictions; reduced conflicts among team members; increased parent and classroom teacher involvement in decision making; and had a positive impact on student outcomes and professional interactions. Logistical problems were identified related to the process, teaching responsibilities, preparation, and lack of follow-through.	Multi-site studies represent wide variations in terms of participants and site characteristics, limiting generalizability.

Table 2. Summary of studies conducted as part of the Related Services Research Project (continued).

Authors and journals	Participants	Research design	Major findings	Limitations
Giangreco, Whiteford, Whiteford, & Doyle (1998) *International Journal of Disability, Development and Education*	Mother, father, preschool teacher, special educator, a speech-language pathologist serving a 4-year-old student with Down Syndrome in an inclusive preschool setting	Case study of COACH and VISTA use for a preschool student with Down syndrome	The use of COACH and VISTA assisted a team in making consensus decisions concerning the educational program and need for related services to support the student in preschool. Family involvement in educational decision making increased. Concerns were highlighted related to team functioning. Team members identified the pros and cons of using COACH and VISTA.	Single case example
Giangreco, Edelman, & Nelson (1998) *Journal of Visual Impairment and Blindness*	21 educational team members (7 triads each including a classroom teacher, special educator, and parent) serving 7 students with disabilities (ages 5–13) in general education classes	Descriptive study with qualitative and quantitative components to study the extent of VISTA use, impact on student outcomes, and extent to which various disciplines were perceived as responsible for contributing to positive student outcomes	When VISTA was used and then implemented, there was a high level of intra-team agreement that it had a positive impact on student outcomes and team functioning. Respondents indicated that the team members most responsible for positive change in student outcomes were either those with highly specialized skills (e.g., deaf-blind specialist) or those who were classroom or building-based, rather than itinerant. There were significant differences between the responses of classroom teachers, special educators, and parents regarding the impact of various disciplines.	There was a small sample. Questionnaire items are subject to idiosyncratic interpretation.
Giangreco, Edelman, Nelson, Young, & Kiefer-O'Donnell (1999a) *Journal of Visual Impairment and Blindness*	384 educational team members supporting 18 students with multiple disabilities in general education classes (preK–12)	Quantitative document analysis to determine the extent of change in team membership from 1994 to 1998	Average team size was 10. Average percent of change in team membership annually was 55.42%. Change after 2 and 3 years was 73.31% and 78.41%, respectively. Parents were constant members in all 18 cases and the only constant in six cases. Speech-language pathologists remained constant in $^1/_3$ of the cases. This was the most of any discipline.	This small sample was based exclusively on students with low-incidence disabilities. This study offers extent of change, but not reasons or impact.
Giangreco, Edelman, Nelson, Young, & Kiefer-O'Donnell (1999b) *International Journal of Disability, Development and Education*	73 educational team members supporting the education of 11 students with multiple disabilities in general education classes (K–12) in three states (i.e., MA, UT, and VT)	Post-test-only questionnaire (1 to 10 Likert-style scale) was used to gather consumer feedback on updates to VISTA	Ninety-seven percent of respondents rated updates to VISTA as "good" or "excellent." Among respondents who previously used VISTA, 84% thought the updated version was better than the original, whereas 16% thought the two versions were about the same. Updated VISTA provided expanded opportunities for input from all team members. Updated VISTA put more decision authority in the hands of classroom teachers and parents. Respondents rated the updated VISTA "practical" ($M = 8.21$; $SD = 1.82$) on a 1 to 10 scale. Respondents remain concerned that the process is perceived as "time consuming."	Post-test-only does not provide experimental verification of findings. Questionnaire items are subject to idiosyncratic interpretation; 43% of respondents had used only the updated version of VISTA.

Note. VISTA = Vermont Interdependent Services Team Approach, COACH = Choosing Outcomes and Accommodations for Children.

natural supports; (d) establishing the educational relevance and necessity of services; (e) ensuring that professional supports are only as special as necessary; and (f) reaching agreement concerning the types of services that need to be offered.

4. *Using the VISTA team summary at the VISTA meeting.* This includes steps such as (a) reaching consensus about services to be provided, (b) determining service frequency and mode of service provision, (c) agreeing on the least restrictive location for service provision, and (d) determining a date to evaluate the impact of service provision.

5. *Next steps after the VISTA meeting* This includes steps such as (a) making arrangements to share the VISTA results with all appropriate individuals, (b) using the VISTA forms to identify subgroups within the team who need to work together on specific tasks, (c) implementing decisions made using VISTA, and (d) evaluating the impact of support services.

VISTA is unique because of its (a) focus on establishing a foundation of shared goals rather than separate goals for each discipline; (b) emphasis on educational relevance and necessity of related services (consistent with the IDEA definition of related services); (c) approaches to involving all team members, especially parents and general education teachers who too frequently are left out of making related service decisions; (d) philosophical foundation of seeking to provide related services that are "only as specialized as necessary" in conjunction with considering the use of natural supports; and (e) emphasis on considering the interrelationships among a variety of disciplines to avoid gaps, overlaps, and contradictions in services due to role overlap across various disciplines. This combination of characteristics distinguishes VISTA from commonly used approaches where related services providers make decisions in autonomous or relatively isolated ways that insufficiently consider the educational relevance and necessity of pro-posed services (Giangreco, Edelman, & Dennis, 1991).

VISTA is one of the only existing school-based related services decision-making models that (a) is based on foundational research, (b) has been field-tested and revised based on systematic data collection over a period of years, and (c) has data supporting its efficacy and impact. In addition to the studies presented in Table 2, VISTA also has undergone review by representatives of 12 national professional, family, and consumer organizations; a repre-sentative designated by the American Speech-Language-Hearing Association (ASHA) was among the respondents (Giangreco, Edelman, Luiselli, & MacFarland, 1996a). Respondents established VISTA as being consistent with exemplary practices and its content as an important area of training that is needed by people affiliated with their organizations. Quantitative and qualitative studies (listed in Table 2) have established that, when used with a reasonable level of fidelity, VISTA contributes positively to students' educational outcomes and does what it purports to do:

- Provide a team process for related services decision making.

- Avoid undesirable service gaps and overlaps.
- Avoid unnecessary service contradictions and conflicts among team members.
- Base related services decision making on a shared set of educational goals.
- Increase involvement of parents and general education teachers in related services decision making.
- Increase team member satisfaction with related services decision making.
- Significantly increase the extent to which team members agree about who should be doing what, with whom, and why in regard to support services.

Changes in VISTA based on these data are reflected in a supplement to VISTA (Giangreco, 1996b), which also has been formally and favorably reviewed by consumers (Giangreco, Edelman, Nelson, Young, & Kiefer-O'Donnell, 1999b).

IMPLICATIONS FOR SPEECH-LANGUAGE PATHOLOGISTS

The following sections describe five overarching themes based on the studies of the Related Services Research Project. These themes reflect important areas, not only for speech-language pathologists, but also for anyone interested in being a contributing member of a collaborative team serving students with and without disabilities.

Develop a Disposition of Being a Learner

Professionals who seem to be most highly valued by their colleagues and family members are those who are both competent in their field and good team members. A characteristic that typifies these valued team members is that they approach their work as contributing and continual learners. They are open to the possibility that, in some cases, people from other disciplines might be more neces-sary in the implementation of services than people from their own discipline. Even more striking is their willingness to recognize certain kinds of expertise in team members who often are not considered specialists, such as parents, general education classroom teachers, and paraprofessionals. This opens new opportunities for the input of specialists to be conceptualized and provided through more typical (rather than specialized) activities using more natural supports (Nisbet, 1992). For example, speech-language pathologists could collaborate with a classroom teacher to embed communication opportunities within typical school activities so as to encourage instructional participation and facilitate interactions between a student with disabilities and his or her classmates.

Our collective ability to make related services decisions as a team is, at times, compromised by the double-edged sword known as *professional socialization.* Each discipline trains its recruits, presumably individuals who have self-selected a career in a "helping profession," to understand

and appreciate the unique character and value of their respective disciplines. So, it is not surprising that these "helpers" highly value their particular helping profession, think of themselves as "experts," and encourage others to view them as experts when they have completed their prescribed course of study. Certainly, ASHA has established high standards for the certification of speech-language pathologists, which is commendable. Yet having expertise means more than exhibiting clinical competencies.

The negative stereotype of an expert is one who always knows the "right answer," which of course is based on his or her own discipline. These experts display a propensity to recommend their highly valued services and often expect others to accept their expert recommendations without much scrutiny. They often return the favor by deferring to the recommendations of "experts" from other disciplines. This professional courtesy, although representing the benevolence of cross-disciplinary civility, unfortunately can have chilling, if not unexpected, effects on collaborative teamwork. The type of professional socialization that encourages the "expert model" can inhibit open communication, establish unrealistic expectations of certain members, create unproductive hierarchies among team members, and foster isolated decision making. Each of these problems sows the seeds of disjointed, fragmented, and inadequate educational planning, implementation, and evaluation.

Wouldn't it be great if the stereotype of a professional was a more universally positive one? In this scenario, the term "expert" would be replaced by the phrase "collaborative team member," where the person is skilled and valued not because he or she has all the answers, but because he or she has the ability to join together with other team members to create a whole that is stronger and better than any single one of them could create on his or her own (Rainforth & York-Barr, 1997; Thousand & Villa, 2000). Maybe more than any other personal characteristic of an effective team member, those members who become disposed to being learners take time to listen carefully and nonjudgmentally to the stories, spoken and unspoken, of people with disabilities and their families. It is through such listening, direct experiences with these families, and ongoing professional skill development that professionals can more fully develop themselves and set the stage for learning and constructive action to flourish among team members.

Develop a Shared Framework with Team Members

When a group of people are assigned to the same student, we often refer to them as a *team*. But, just because a group of people are assigned to the same student and share some common tasks such as assessment, curriculum selection, placement decisions, related services decision making, instruction, and evaluation, it does not make them a team. The quality and impact of the group's decisions are based in large part on developing a *shared framework*. A shared framework consists of a team's common set of beliefs, values, or assumptions concerning education, children, families, and professionals to which they agree

through ongoing dialogue. Identifying these points of agreement inevitably leads to the identification of points of disagreement. It is advisable to share these differing perspectives openly among team members. When these beliefs, values, or assumptions are unknown or hidden, the team process is more likely to be subverted.

It is somewhat unusual for teams to take time from their busy schedules to consider the extent to which members have a shared framework or to develop one. If our research participants are at all representative of the broader population of people working in schools with students who have disabilities, then it is quite common for team members to disagree about important foundational issues (Giangreco, Edelman, MacFarland, & Luiselli, 1997) or to lack basic knowledge about each other's background, skills, and attitudes even if they have been working together for a year or more (Giangreco, Whiteford, Whiteford, & Doyle, 1998). These disagreements and members' lack of awareness concerning the possibility of such disagreements create situations where team members may be working at cross purposes. Developing a shared framework provides a solid foundation on which a team can build and remodel effective education.

Have a Process for Making Consensus Decisions

A problem that continues to plague related services decision making is the absence of team processes by which to determine educationally necessary supports. This problem takes two basic forms: Some groups have no identifiable process; others have identifiable processes that are designed for use by a single discipline, such as for speech-language pathologists to make decisions concerning speech-language pathology services.

- In the first scenario—absence of a process—decisions are made based on intuition, clinical judgment, historical practices, or advocacy by parents or professionals. In some cases, people have great intuition, or their historical practices have worked well, and so, in the absence of a team decision-making process, they have had the good fortune of making appropriate decisions. If a team has experienced effective decision making with this type of approach, they might be satisfied, but our evidence suggests that most groups just are not that lucky.

- The second scenario—where there is a process for a specific discipline—while seemingly a better alternative than having no process, still has substantial limitations. Any process for making educationally necessary related services decisions that explores the potential role of a single discipline, without exploring the potential interrelationships among the other disciplines, will increase the likelihood of service gaps, overlaps, and contradictions. This reality is unavoidable because the various disciplines have overlapping roles and functions. VISTA remains one of the only widely available team processes for making educationally necessary support service

decisions by consensus that has also undergone some level of peer review and field testing.

It is important to recognize that VISTA is not a quick and easy formula to provide the "right answer." In fact, consumers are cautioned to be wary of formulas that promise quick, easy answers to complex and highly individualized decisions. VISTA provides a principle-based process and a set of collaborative teamwork procedures that assist people who know and care about a student's education to discuss options and make an educated "best guess" concerning appropriate support services. Using VISTA, the consensus decisions made by the team are then implemented, evaluated, and adjusted based on ongoing data collection.

Our research documents that people do make different decisions when they use a team decision-making process, such as VISTA, for reaching consensus. Two separate studies demonstrated that, after using VISTA, the reported need for related services personnel to support identified aspects of a student's educational program were substantially different for the same students than the decisions that were made by the same related services personnel in isolation just prior to using VISTA (Giangreco, 1994; Giangreco, Edelman, Luiselli, & MacFarland, 1996b). In part, the decisions resulted in team members agreeing that support services providers should focus on a smaller set of items and increasingly use indirect and consultative services.

Explicitly Clarify Your Role

Teamwork does not mean that all team members must be involved in all team activities. Teams can agree to a division of labor and determine differentiated roles for their members. One way suggested in VISTA to manage potentially large team size is to differentiate between core members, extended members, or situational resources to the team.

Core members are those members who have substantial daily involvement with the student, such as the classroom teacher, special educator, parent, and paraprofessional. Typically, they are involved in delivering the bulk of the student's educational program. *Extended team members* are those members who have less frequent involvement, but at regular intervals, and whose involvement tends to be focused on a smaller subset of the student's educational program. *Situational resources* to the team are those individuals who provide support to the team and student on an infrequent basis around a highly specific aspect of the educational program. These individuals typically are not involved in ongoing educational planning or implementation. Although speech-language pathologists may function in any one of these capacities, they are most likely to be involved as extended or core team members.

Second, VISTA assists team members in explicitly clarifying their respective roles by referencing team member involvement to specific components of the student's educational program such as annual goals, general education curriculum content, and general supports.

Be Keenly Aware of Supporting Families and General Education Teachers

It is ironic that the two sets of people who spend the most time with the student with a disability—namely family members and the regular classroom teacher—frequently are the ones with the least influence on determining what support services are needed. This reduced level of involvement, documented in some of our studies, seems to be interrelated with adherence to expert models of decision making and a continued misunderstanding of the role of related services in schools. This is an area in need of change, because in addition to the students themselves, parents and classroom teachers are the two primary consumers of related services supports.

When specialists administer their assessments and make decisions in relative isolation, families and general educators can find themselves as passive recipients of questionably relevant services. Out of the expert model often come recommendations of what the specialist wants the family and teachers to do, which do not necessarily match the needs of team members and therefore are of limited value. Instead, we should be working with families and teachers to figure out where our involvement is necessary, while always keeping in mind that natural supports or supports provided by other disciplines may be most appropriate.

A central question embedded in the concern of some professionals is, "Do families and teachers know what they need?" Some professionals question whether families and teachers have the training and expertise to know what they need. They cite the age-old dilemma that "you don't know what you don't know." Although this may appear to be a reasonable concern, it diminishes the fact that families and teachers have expertise in their own right concerning the student. Parents certainly have expertise concerning the characteristics, motivations, and needs of their own child. Similarly, the classroom teacher who spends each school day with a child develops his or her own set of specialized knowledge concerning the child. Additionally, many family members and classroom teachers develop various types of expertise that extend beyond the specific child. For example, parents are often extremely knowledgeable concerning the characteristics and educational approaches associated with their child's disability. Teachers may be extremely knowledgeable concerning areas such as standards-based education, authentic assessment, cooperative learning, or differentiated instruction.

It is usually a good starting point to assume that parents and teachers do know whether, and with what, they need help. Using a collaborative, rather than expert, approach, related services providers can ask questions, provide insights, and problem solve together with other team members to design appropriate educational experiences and supports for students with disabilities.

CONCLUSION

Being an effective professional involves many competencies, some of which are firmly embedded in our personnel

preparation programs and others that tend to be developed on the job on an ongoing basis. The five themes presented in this article represent areas of knowledge and skill that can be learned in a course of study, but that must be nurtured and practiced if they are to take root and thrive as part of one's professional repertoire. We need to spend more time attending to these collaborative teamwork practices, such as being a learner, developing a shared framework, clarifying roles, building consensus, and involving families and teachers, so that the power of clinical skills can be applied in ways that really matter. At the end of the day, one of the most important questions to be answered is, "Did our educational and related services efforts on behalf of our students with disabilities contribute to them having a better life?" We can increase the likelihood of answering this question with a resounding "Yes" if we coordinate our approaches in ways that explicitly address the needs of our consumers. This will require collaborative teamwork, rather than expert models, where the input of students with disabilities, their families, and teachers is integrated with the specialized knowledge and skills of various disciplines in the most natural ways possible to ensure that students with disabilities receive an appropriate and meaningful education.

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REFERENCES

Board of Education of the Hendrick Hudson Central School District v. Rowley, 102 S. Ct. 3034 (1982).

Fox, T., & Williams, W. (1997). *Best practice guidelines for meeting the needs of all students in local schools*. Burlington, VT: University of Vermont, Center on Disability and Community Inclusion.

Giangreco, M. F. (1994). Effects of a consensus-building process on team decision-making: Preliminary data. *Physical Disabilities: Education and Related Services, 13*(1), 41–56.

Giangreco, M. F. (1996a). "The stairs didn't go anywhere!" A self-advocate's reflections on specialized services and their impact on people with disabilities. *Physical Disabilities: Education and Related Services, 14*(2), 1–12.

Giangreco, M. F. (1996b). *Supplement to VISTA*. Burlington, VT: University of Vermont, Center on Disability and Community Inclusion.

Giangreco, M. F. (1996c). *Vermont interdependent services team approach (VISTA): A guide to coordinating educational support services*. Baltimore, MD: Paul H. Brookes.

Giangreco, M. F., Edelman, S. W., & Dennis, R. E. (1991). Common professional practices that interfere with the integrated delivery of related services. *Remedial and Special Education, 12*, 16–24.

Giangreco, M. F., Edelman, S. W., Dennis, R. E., Rubin, R., & Thoms, P. (1999). Vermont's guidelines for related services: Supporting the education of students with disabilities. *Physical Disabilities: Education and Related Services, 18*(1), 35–49.

Giangreco, M. F., Edelman, S., Luiselli, T. E., & MacFarland, S. Z. (1996a). *Review of VISTA by representatives of national organizations*. Burlington, VT: University of Vermont, University Affiliated Program of Vermont. (ERIC Document Reproduction No. ED396490).

Giangreco, M. F., Edelman, S. W., Luiselli, T. E., & MacFarland, S. Z. (1996b). Support service decision-making for students with multiple service needs: Evaluation data. *The Journal of the Association for Persons with Severe Handicaps, 21*, 135–144.

Giangreco, M. F., Edelman, S., Luiselli, T. E., & MacFarland, S. Z. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children, 64*, 7–18.

Giangreco, M. F., Edelman, S. W., Luiselli, T. E., & MacFarland, S. Z. (1998). Reaching consensus about educationally necessary support services: A qualitative evaluation of VISTA. *Special Services in the Schools, 13*(1/2), 1–32.

Giangreco, M. F., Edelman, S., MacFarland, S. Z., & Luiselli, T. E. (1997). Attitudes about educational and related services provision for students with deaf-blindness and multiple disabilities. *Exceptional Children, 63*, 329–342.

Giangreco, M. F., Edelman, S. W., & Nelson, C. (1998). Impact of planning for support services on students who are deaf-blind. *Journal of Visual Impairment and Blindness. 92*, 18–29.

Giangreco, M. F., Edelman, S., Nelson, C., Young, M. R., & Kiefer-O'Donnell, R. (1999a). Changes in educational team membership for students who are deaf-blind. *Journal of Visual Impairment and Blindness, 93*, 166–173.

Giangreco, M. F., Edelman, S., Nelson, C., Young, M. R., & Kiefer-O'Donnell, R. (1999b). Improving support service decision-making: Consumer feedback regarding updates to VISTA. *International Journal of Disability, Development and Education, 44*, 463–473.

Giangreco, M. F., Prelock, P., Reid, R., Dennis, R., & Edelman, S. (2000). Roles of related service providers in general education classrooms. In R. Villa & J. Thousand (Eds.), *Restructuring for caring and effective education: Piecing the puzzle together* (2nd ed., pp. 360–388). Baltimore, MD: Paul H. Brookes.

Giangreco, M. F., Whiteford, T., Whiteford, L., & Doyle, M. B. (1998). Planning for Andrew: A case study of COACH and VISTA use in an inclusive early childhood program. *International Journal of Disability, Development and Education, 45*, 375–395.

Giangreco, M. F., York, J., & Rainforth, B. (1989). Providing related services to learners with severe handicaps in educational settings: Pursuing the least restrictive option. *Pediatric Physical Therapy, 1*(2), 55–63.

Hutchinson, D. J. (1978). The transdisciplinary approach. In J. B. Curry & K. K. Peppe (Eds.), *Mental retardation: Nursing approaches to care* (pp. 65–74). St. Louis, MO: C.V. Mosby.

Individuals with Disabilities Education Act Amendments of 1997, Pub. L. No. 105-17, 20 U.S.C. 1400 *et seq.*

Irving Independent School District v. Tatro, 104 S. Ct. 3371 (1984).

McGregor, G., & Vogelsberg, R. T. (1998). *Inclusive schooling practices: Pedagogical and research foundations: A synthesis of the literature that informs best practices about inclusive schooling.* Baltimore, MD: Paul H. Brookes.

Meyer, L., & Eichinger, J. (1994). *Program quality indicators (PQI): A checklist of most promising practices in educational programs for students with disabilities* (3rd ed.). Syracuse, NY: Syracuse University, School of Education.

Nisbet, J. (1992). *Natural supports at home, school, and in the community for people with severe disabilities.* Baltimore, MD: Paul H. Brookes.

Orelove, F. P., & Sobsey, D. (1996). *Educating children with multiple disabilities: A transdisciplinary approach* (3rd ed.). Baltimore, MD: Paul H. Brookes.

Rainforth, B., & York-Barr, J. (1997). *Collaborative teamwork: Integrated therapy services in educational programs for students with severe disabilities.* Baltimore, MD: Paul H. Brookes.

Schwartz, D. (1997). *Who cares: Rediscovering community.* Boulder, CO: Westview Press.

Stainback, W., & Stainback, S. (1996). *Inclusion: A guide for educators.* Baltimore, MD: Paul H. Brookes.

Thousand, J., & Villa, R. (2000). Collaborative teams: A powerful tool in school restructuring. In R. Villa, & J. Thousand (Eds.), *Restructuring for caring and effective schools: Piecing the puzzle together* (2nd ed., pp. 254–291). Baltimore, MD: Paul H. Brookes.

Villa, R. A., & Thousand, J. (1995). *Creating an inclusive school.* Alexandria, VA: Association for Supervision and Curriculum Development.

York, J., Rainforth, B., & Giangreco, M. F. (1990). Transdisciplinary teamwork and integrated therapy: Clarifying the misconceptions. *Pediatric Physical Therapy, 2*(2), 73–79.

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