

# Delivery of Therapeutic Services in Special Education Programs for Learners With Severe Handicaps

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**ABSTRACT.** Currently physical and occupational therapists as well as other service providers are working in public education settings with children and youth who experience severe and multiple handicapping conditions. Typically the provision of these therapeutic services may be characterized as *direct, isolated, and primarily centralized*. Reasons why this often employed model may seriously detract from the provision of quality educational and therapeutic programs for individuals with severe handicaps are discussed. An alternative is presented which focuses on an *indirect, integrated, decentralized* service delivery model. While this alternative model appears to have logical appeal, its implementation continues to be the exception rather than the rule. Barriers which must be overcome in order to effectively implement such an alternative model are discussed as they relate to therapists, teachers, parents, and administrators.

The Education for All Handicapped Children Act of 1975 (P.L. 94-142) marked a dramatic increase in the number and types of services provided to public school children with increasingly severe and multiple handicapping conditions. Typically these students have been recommended to receive physical, occupational, and speech therapy as related services to assist them in benefitting from their special education programs. The literature clearly supports the need for the involvement of a variety of disciplines with these individuals, since no single discipline embodies all of the varied skills necessary to meet the intense and multiple needs of this population.<sup>1-5</sup> While those who advocated for and provided an increase in needed services are to be commended for their efforts, merely to provide programs is not sufficient. Parents, advocates, and professionals have the responsibility to work jointly in an effort to ensure that

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the services which are provided are appropriate and efficient in attaining a higher quality of life for the person being served.

### ***DIRECT, ISOLATED, CENTRALIZED SERVICES***

The current model for the delivery of therapy services may be characterized as *direct*, *isolated*, and primarily *centralized*. *Direct* refers to the provision of therapy services directly by therapists, rather than indirectly with the therapist serving as a consultant. *Isolated* refers to the traditional "pull out" approach to school-based therapy. Sternat and associates<sup>6</sup> characterize the isolated therapy model by removal of the learner from the classroom, delivery of services in an isolated therapy room, testing related to current developmental levels, intervention geared toward teaching specific developmentally determined skills, and potential reduction of services due to lack of progress. *Centralized* refers to the grouping of students with severe handicaps in geographically centralized locations in an attempt to provide efficiently shared services among and within school districts serving this low incidence population.

Examination of current service delivery practices suggests that the provision of direct, isolated, centralized services may pose serious impediments to the provision of quality educational and therapeutic programs for students with severe handicapping conditions.

The following concerns represent problems which detract from the desirability of employing a direct, isolated therapy model in centralized educational settings. Although programs serving learners with severe handicaps commonly employ professionals from a variety of disciplines<sup>4</sup> and refer to them as a "team", those groups of people frequently take the form of a "Discipline Referenced/Quasi Team".<sup>7</sup> This group has the facade of an actual interprofessional team<sup>8</sup> in that members meet together to discuss the learner, but often agree to pursue separate rather than common goals. These separate goals are frequently discipline-referenced, meaning that priorities have been selected based upon what is valued by the particular discipline. The Quasi Team selects multiple sets of priorities, one for each discipline, and writes separate goals and objectives which are stapled together and called a "Team IEP" (Individual Education Plan). Typically these team members assess, plan, implement, evaluate, make decisions, and report progress separately while vowing to "work together as much as possible". All this isolation may occur despite the fact that these professionals may be competent in their fields, dedicated, and care about the learner. This type of isolation results in disjointed and inefficient programs where educational therapy goals may be unrelated. Sears<sup>9</sup> reminds us that special education and related therapy services are legislatively bound together in an interdependent relationship since P.L. 94-142 states that related services are to be provided "as may

be required to assist a handicapped child to benefit from special education".<sup>10</sup>

Isolated approaches typically assess students in school or clinical settings rather than their natural frequented environments.<sup>1</sup> Recently Woolery and Dyk<sup>11</sup> described an arena approach to transdisciplinary assessment in which students are evaluated by a variety of disciplines in an artificial setting. This type of assessment assumes that the information collected in a school or isolated therapy setting is representative and predictive of the behavior that will occur in a variety of other settings which are contextually relevant for the learner.<sup>6</sup> These assessments often focus on isolated subskills which tends to detract from focusing on the necessary chains of behaviors which constitute functional activities.<sup>1,7,12,13</sup>

Isolated models provide episodic intervention efforts, such as one to three therapy sessions per week for 30 minutes. Due to the intensity of their handicapping conditions, severely handicapped students require ongoing intervention.<sup>14</sup> The isolated model assumes that such episodic efforts will result in generalized development of skills acquired through the isolated therapy session.<sup>6</sup> This is a concern since the literature clearly indicates that learners with severe handicaps experience significant difficulty generalizing and synthesizing acquired skills.<sup>15-17</sup>

Shortages of qualified therapists to work with students who have severe handicaps detracts from the use of a direct, isolated model. Shortages typically are more acute in rural areas. The number of direct service therapists necessary to provide the intense level of service required in a direct, isolated model would be both cost inefficient and infeasible.<sup>5</sup> Additionally, a study by McCormick, Cooper, and Goldman<sup>18</sup> suggests that the direct, isolated model of therapy promotes an inefficient use of educational time, with significant amounts of time being spent in caretaking and transporting activities.

Due to the variety of professionals and paraprofessionals working with severely handicapped students, the sheer number of people can become overwhelming for school personnel, the student, and the family. A severely handicapped child may encounter a special education teacher, two teacher aides, a physical therapist, occupational therapist, speech therapist, physical education teacher, and potentially others in a given day. Five to ten people attempting to coordinate daily routines for a single student adds to the fragmentation of services and creates logistical nightmares for direct service providers as well as school administrators who are responsible for coordinating service schedules. In the direct, isolated model, these daily schedules are usually relatively inflexible allowing limited opportunities for team members to discuss concerns and progress.<sup>1</sup> This problem of too many people working with the same child was the impetus for creation of the transdisciplinary model in medical pediatric intensive care settings.<sup>19</sup>

A major concern regarding a direct service delivery model is that, in an attempt to provide intensive levels of related therapy services, students have been sent to more restrictive educational placements which tend to be centralized and segregated from nonhandicapped peers. A frequent rationale given for the segregation of students with severe or multiple handicaps is that direct therapy services must be centralized in order to be efficient. A closer look suggests that while it may be more efficient for therapists and administrators, it may not be most efficient or beneficial for the students being served or their families. Centralization of severely handicapped students may lead to any or all of the following results. (1) Long, static bus rides to and from centralized program locations may undo the benefits of episodic therapy. (2) Bus rides beyond the student's community of residence translate into a shorter instructional day and correspondingly less instruction and, given the learning characteristics of the severely handicapped, that represents a significant amount of wasted time for children who can ill afford less instruction. (3) Centralization limits access of team members to families who live far from the centralized location or do not have available transportation. This correspondingly limits access to the natural home and community environments frequented by the learner which are crucial for natural environment assessment and intervention efforts.<sup>20,21</sup> (4) Segregated placements are logically incompatible with assisting students with severe handicaps to participate maximally in the heterogeneity of the real world.<sup>22</sup> (5) Centralization limits access of students with severe handicaps to a variety of school and extra-curricular activities enjoyed by nonhandicapped peers including neighborhood affiliations. (6) In segregated settings severely handicapped learners have limited appropriate peer models of communicative and social behavior.<sup>15,22</sup> (7) Many communities have not been sensitized to the individual characteristics and needs of persons with severe handicaps partly because the severely handicapped children and youth who reside in those communities have been sent away to other communities every school day of their life. As pointed out by Brown and his colleagues,<sup>22</sup> many nonhandicapped individuals may also benefit by interactions with severely handicapped persons, potentially as future service providers, future parents, and to attain a personal perspective which may not be realized in their absence.

The literature clearly indicates that enough serious concerns exist educationally, therapeutically, ethically, and economically to warrant the consideration of an alternative to the typically employed direct, isolated model in centralized, segregated settings. The stating of these concerns does not suggest that persons with severe handicaps have not benefitted from therapy services which have been provided through typical models of service delivery, but merely that we have a professional responsibility to scrutinize closely our existing practices.

## INDIRECT, INTEGRATED, DECENTRALIZED SERVICES

The transdisciplinary team approach described by Hutchinson<sup>19</sup> has been widely advocated in the professional literature in reference to persons with severe and multiple handicaps.<sup>1,9,23-29</sup> In transferring the transdisciplinary model from medical to educational settings, three major characteristics may be noted. The model suggests the provision of therapy services which are *indirect*, *integrated*, and *decentralized*. *Indirect* refers to therapists primarily serving as consultants rather than as direct service providers. In the transdisciplinary team model this indirect approach allows for consistency by limiting the number of people carrying out programs, while simultaneously employing the expertise of a variety of disciplines. Typically, the direct service providers would include the classroom teacher, assistants, and the parents since these are the people who spend the most time with the learner on an ongoing basis. A common misconception is that indirect therapy infers the elimination of direct involvement between therapists and service recipients. Indirect therapy necessitates direct interaction, but this involvement typically is more flexible in nature and includes sharing expertise with others.

*Integrated* refers to the incorporation of educational and therapeutic techniques employed cooperatively to assess, plan, implement, evaluate, and report progress on common needs and goals. Sternat and her colleagues<sup>6</sup> outlined the following basic assumptions regarding an integrated therapy model. (1) Assessment should be conducted in the natural environments frequented by the learner. (2) Programs for the student should be jointly devised by educators, related service personnel, and parents. (3) Intervention should focus on the teaching of clusters of behavior which constitute functional activities. (4) Therapy should be interwoven into a variety of activities continuously throughout the day in a naturalized manner. (5) Therapy should be provided longitudinally. (6) Skills and activities should be taught within the context of the settings where they occur naturally.

The following example reflects an integrated approach to transdisciplinary planning. Jimmy was a 10 year old male with mixed cerebral palsy. Athetosis and spasticity affected his entire body. This youngster had subluxed hips, limited range of motion, and exhibited a variety of abnormal reflexes. While frequently he displayed strong extension patterns, significant underlying weakness was present. He had no trunk control and limited head control. Jimmy's IQ was estimated at below 20. While he was nonverbal, Jimmy communicated somewhat through eye gaze, facial expression, and vocalizations. Due to his communicative deficits, he cried or whined as a method to attract the attention of nearby people. Those who knew him considered him to be socially aware and highly responsive to people.

Within the context of a public school program for students with severe handicapping conditions, a transdisciplinary team which included Jimmy's parents, determined contextually relevant, functional priorities to be included in Jimmy's Individual Education Plan (IEP). One of the priority goal areas selected for training emphasis was improved communication skills. Within this general category, one of a series of objectives was designed to teach Jimmy a more socially acceptable method to gain the attention of nearby people.

In traditional, isolated models, all communication programming would be delegated to the speech and language pathologist. While input typically would be requested from others disciplines, the primary responsibility for communication related goals and objectives would remain with the specialist. Conversely, the integrated model relies upon team members applying their varied skills to common goals, with the responsibility being shared by team members. Each team member was asked what they could offer from their respective discipline to assist the child in attaining the identified goal. This type of approach is referenced to the child's needs rather than being discipline-referenced. In this case the team agreed that an adaptation was required in order for the learner to gain the attention of nearby people in a socially appropriate manner. This adaptation consisted of a large flap switch activated by light hand touch. The switch which was positioned in front of Jimmy activated a tape player containing a continuously cycling tape loop which repeated the message "Excuse me. I'd like to talk to you" in the voice of a nonhandicapped boy who was the same age as Jimmy.

The physical and occupational therapist contributed to the team effort by supplying appropriate therapeutic positions and equipment for the learner, handling and tone reduction techniques for getting in and out of the therapeutic positions, and designing a customized wheelchair which included determination of the appropriate lap tray height to assist with upper body stabilization. Their knowledge of motor patterns resulted in information regarding the positioning of the switch and adaptations to the switch surface to compensate for the learner's athetosis. Resting splints were fabricated to control for edema in his hands and maintain a neutral position.

The speech pathologist contributed by originally suggesting that a socially appropriate summoning skill be taught, that human voice be used rather than a buzzer, bell, or other artificial device, and by suggesting that relevant graphic symbols be attached to the switch surface. The parents added information which highlighted the summoning skill as a priority in nonschool settings, as well as provided invaluable input regarding potential reinforcers. The special education teacher designed and built the adapted switch, suggested appropriate instructional techniques for skill acquisition, retention, and generalization, designed a data collec-

tion strategy for monitoring progress and evaluating program effectiveness, and synthesized all of the pertinent input from each team member into a written plan.

Through integrated planning and subsequent indirect implementation carried out primarily by parents, the teacher, and classroom aides, therapeutic input was supplied to the learner on an ongoing basis throughout the day within the context of functional activities in naturally frequented environments.

One of the benefits of this type of group effort is that through role release<sup>30</sup> professionals may share ideas which transcend their areas of training. For example, a head rest needed to be developed which would provide support while not limiting opportunities for self-initiated movement. While such a task traditionally would be delegated to the physical therapist, in the integrated model team members discussed the concern as a group. Through a process of brainstorming, in an atmosphere of deferred judgement, ideas triggered additional ideas until ultimately the speech pathologist generated the best solution to the problem. This type of approach provides fertile ground for the generation of creative ideas as well as opportunities for growth through professional exchange.

Giangreco<sup>7</sup> reflects the integrated therapy assumptions in the Cayuga-Onondaga Assessment for Children with Handicaps (COACH). COACH also emphasizes the importance of involving parents by assisting them in becoming better consumers of special education and therapy services. This emphasis on consumerism is based on five major assumptions. (1) Parents know their child better than anyone else. (2) Parents have the greatest vested interest in seeing their child learn. (3) Parents are likely to be the only adults involved with their child's education throughout the entire school career. (4) Parents have access to information about their child in home and community settings to which others have no access. (5) Parents have the ability to positively influence the quality of educational services provided in their community.

*Decentralized* refers to providing educational and therapeutic services to students in the local school districts where they reside. Since the location of students' residences are scattered, services would be decentralized correspondingly. This would provide access to the natural home and community settings frequented by the student by allowing them to receive their education in less restrictive, heterogeneously grouped local schools close to their homes.

A variety of approaches has been suggested in an effort to provide decentralized services in rural areas.<sup>27,31-34</sup> On a regional level Magrun and Tigges<sup>27</sup> described a mobile intervention unit designed to bring specialized therapeutic services to rural areas of southwestern New York State. On a larger scale, the Center for Developmental Disabilities at the University of Vermont operates a statewide Interdisciplinary Team for

learners with severe handicaps.<sup>32</sup> Vermont's I-Team advocates decentralized community-based programs while providing support services to local school districts. These indirect therapeutic support services are provided by employing therapists from the various disciplines to consult with direct service providers as needed. Both Vermont's model and the Release-Time Consultation Model described by Smith and Pasternack<sup>34</sup> emphasize the need for training personnel in the field. While the populations of school districts vary, Taylor<sup>35</sup> has suggested that schools observe the principle of natural proportions. This refers to the natural proportion of non-handicapped to severely handicapped persons dispersed throughout a given geographic area. Providing indirect, integrated, decentralized therapeutic services in educational settings theoretically addresses many of the concerns described earlier in reference to the more traditional approach and provides a direction toward which we may strive to better meet the needs of persons with severe handicaps.

### ***BARRIERS TO BE OVERCOME***

Although the indirect, integrated, decentralized model appears to be logical as well as educationally and therapeutically desirable, currently its implementation is the exception rather than the rule. In order for this model to be effectively implemented, several variables must be attended to by educators, therapists, parents, and administrators.

Possibly the most important variables in teaming are effective communication among team members<sup>2,36</sup> and cooperation.<sup>37</sup> Inservice staff development must be initiated which attends not only to educational/therapeutic information, but also to team communication and cooperation processes such as conflict management, conflict resolution,<sup>3</sup> role release,<sup>30</sup> issues of territoriality,<sup>37-39</sup> and mechanisms for team meetings. These issues must be addressed because little attention is given to these types of team concerns in most preservice training programs.<sup>9</sup>

Frequently teams have difficulty focusing on group concerns.<sup>2</sup> To assist in coordination efforts, Bricker<sup>40</sup> has recommended that the teacher assume the role of educational synthesizer since he or she is likely to be the only professional staff member working directly with the student throughout the day. Within the context of a transdisciplinary team the teacher may assume a facilitator's role in team meetings, however the role of educational synthesizer or facilitator does not infer a disproportionate weighting of input. All team members have an equal role in the decision-making process. Greater direct responsibilities on the part of teachers do not relieve therapists of accountability for student progress. Methods of team accountability should be established and employed as part of role clarification.<sup>1</sup>



Indirect, integrated models necessarily require greater amounts of time for team planning and interaction.<sup>1</sup> Providing mechanisms for such planning will require administrative support, planning, and flexibility.<sup>37</sup> This administrative involvement should be done cooperatively with direct service staff in order to involve them closely in the planning process since innovations which are imposed from the top down may fail due to lack of perceived involvement by staff.<sup>2</sup>

As pointed out by Sears,<sup>9</sup> many people are generally resistant to change. This resistance may be especially acute if staff are asked to assume roles which differ from their training emphasis and personal preferences. For example, a therapist trained as a direct service provider may be hesitant to assume the role of consultant because he or she really enjoys working directly with children.<sup>1</sup>

Finally, administrators of regular public schools often believe that they are unprepared to accept classrooms which contain students with severe handicaps due to previous negative experiences with the integration of less handicapped students or their belief that students with severe handicaps require specialization beyond what may be offered in the regular school.

These concerns and barriers to the implementation of indirect, integrated, decentralized service delivery may be addressed through the development of practical models of transdisciplinary assessment, planning, implementation, and evaluation. These models may be developed, implemented, and evaluated through a variety of support services, staff development, community education, and administrative alterations approached in a cooperative fashion. It is unlikely that any single approach to service delivery will meet the needs in all or even most settings. While we may certainly learn from our colleagues, efforts must be initiated on regional and local levels in order to account for the uniqueness of variables which influence our decision-making efforts. Hopefully resultant strategies will yield services that will enhance the education and adjustment of persons with severe handicaps in order to maximize their potential for useful and meaningful participation in society and for self-fulfillment.<sup>41</sup>

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