

WCES-2010

Non-classroom special education effectiveness for students with severe developmental, emotional and behavioral disorders

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Received October 14, 2009; revised December 23, 2009; accepted January 7, 2010

Abstract

Few studies exist on the effectiveness of special education day treatment for student youth with emotional and behavioral disorders so severe that they cannot be educated in a day treatment setting. Case studies were performed with two youth who had failed previous special education and day treatment programs. Youth participated in a special education program in a private, non-profit, behavioral health and education agency. Unique to this program were the non-traditional, non-classroom based components of education and therapies. Comprehensive, interdisciplinary interventions resulted in progress for these two youth in areas of medical health, violent /aggressive behavior, communication and social skills, community involvement and educational skills. Additional study needs to be performed on more students along with empirical testing of specific interventions with comparison cases.

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Keywords: Day treatment; mental health; mental retardation.

1. Introduction

Scant research exists on the efficacy of special education day treatment for students with emotional and behavioral disorders. In large part, this is due to the methodological challenges inherent in the work; Placements into day treatment are not randomized, and children enter and exit as needed. However, existing literature on elementary-aged students suggests that day treatment can have positive outcomes in terms of return to and maintenance in public educational settings (Erker, Searight, Amanat & White, 1993; Goran Svedin & Wadsby, 2000; Whitmore, Ford & Sack, 2003). Special education for older youth focuses on functional life skills and transition into adulthood (Cronin, 1996), including employment, home maintenance, community involvement and personal and social relationships (Halpern, 1994). Alwell and Cobb's (2006) literature review found that teaching functional life skills to youth with moderate disabilities using various interventions yielded improved quality of life independence and community adjustment. Another study demonstrated improvement in truancy and psychiatric symptoms in a youth mental health sample who received an alternative day program (Matzner et al., 1998). However, there is a lack of literature on comprehensive programming for older youth with co-occurring serious mental health issues and developmental disabilities.

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This study provides findings from a case-study research effort that documents the progress of two severely delayed and psychologically compromised youth who participate in the Educational Options Program, an alternative, non-classroom based, special education setting. These youth were unable to be educated in less restrictive environments, as evidenced by high frequencies of challenging behaviors including aggression, self-injury and property destruction. This type of education evolved in this private, non-profit behavioral health and educational agency in New England as a result of increased student acuity. Over the course of 1 year, special education (day treatment) youth at the agency showed a 33% increase in their need for 1:1 staffing and a fourfold increase of 2:1 staff support. The purpose of the program was to provide an education to youngsters who have otherwise failed in other intensive special education settings. This study sought to review the progress of two students who had participated for a minimum of 12 months. The research question asked what change occurred since participation inception in areas of functional life and academic skills – specifically health, violent/aggressive behavior, adaptive behavior, safety holds, communication and social skills, educational skills and community involvement.

1.1 Special Education Program

Features of the comprehensive, non-traditional, Educational Options Program include instruction and therapy in the youth's home environment and in the community, as opposed to a classroom, with a full team of professionals. Special education and mental health interventions are delivered by an interdisciplinary team including the youth's family or guardian, and disciplines of psychiatry, psychology, social work, speech-language pathology, occupational therapy, special education and transition coordination. The program provides constant staff contact and support and emphasizes building life and learning skills. All programming is individualized and frequently fine-tuned to accommodate changes in the youth's response and needs.

Individuals are comprehensively assessed at intake. Evaluations include speech-language, occupational, psychosocial history and psychological assessment to determine intelligence, personality and adaptive functioning. All students also receive a full psychiatric evaluation and medication management, if applicable. A social worker serves as the students' primary clinician on a daily basis. A special education teacher assesses each individual for academic and developmental strengths and needs. The evaluations result in team-generated individualized educational and service programs that focus on learning and psychological needs including life skills, academic skills, peer relations, social skills, leisure, self-care and community involvement.

The students' 6 hour days are equal in time to school-based peers and typically begin at the residential home. Staff provide coaching and youth practice functional life skills (e.g., hygiene, dressing) in their natural environment. After completing morning routines, students begin academic programming and special classes such as art and music for a two-hour period. Following academic instruction, students participate in daily community-based vocational programming. Vocational tasks include recycling, delivering mail, working on a farm and folding towels at a local nursing home. Afternoon activities consist of exploring a variety of structured leisure activities both within the residence and in the community including bowling, shopping, cooking, dining out and peer interaction through game playing. Educational support staff work closely with the residential support staff in the transition from educational programming to therapeutic home programming.

2. Methodology

2.1 Participants

Two youth (A and B) were the subjects of the case study review. Student A is a 17.5 year old, white male who was removed from his father's care 3.5 years ago when father was jailed for child sexual molestation. Student A's mother died from a heart attack several years prior to that event. Student A has resided in multiple crisis placements, foster care, and a residential treatment home. He presented to the agency with symptoms of severe aggression, impulsivity, property destruction and diagnoses of Autism Spectrum Disorder, Moderate Mental Retardation and Child Abuse. Student A has been discharged from two different special education day treatment programs because of severe aggressive behavior resulting in injury of four staff persons. He began participation in this agency's Educational Options Program 20 months ago.

Student A receives weekly speech and language services to develop increased articulation and pragmatic language skills. He spends on average 12-plus hours per week in the community practicing vocational, daily living, leisure and social skills. Student A spends the remainder of his time working within the residence, either in the general living space or within a designated, low-stimulus, instruction space. Student A interacts with peers during snack and lunch periods, as well as teaming with a peer while working on a farm.

Student B is a 15 year, 10 month old, black male who was removed from his biological home 5 years, 10 months ago due to severe maternal neglect and severe sexual and physical abuse. His father is incarcerated and his mother has severe mental health issues. Student B was removed from two foster homes and two residential/day treatment programs due to unmanageable sexually inappropriate behavior. He has had one psychiatric hospitalization. Student B was admitted to this agency's residential/day program 2 years, 4 months ago presenting with issues of physical aggression, sexualized behavior toward staff and peers and diagnoses of Post Traumatic Stress Disorder, Disruptive Behavior Disorder, Mixed Receptive-Expressive Language Disorder and Moderate Mental Retardation. He began education in this agency's Educational Options Program 1 year ago.

Student B splits his time equally between the residential setting, an individual space within a day treatment building and the community. He averages 2 hours per day of community-based programming to target vocational and leisure skills development. Student B receives 60 minutes of direct service per week of both occupational therapy and speech-language therapy and interacts with peers on a daily basis while passing through the hallways and during a weekly structured social recreation group.

2.2 Procedure

Three sources of data were collected for the study: student files including case notes, progress data and staff interviews. Documents in each student's file were reviewed for baseline and subsequent changes in functioning and included the following: Quarterly review reports on student goals and objectives, incident reports, daily tracking progress logs, psychosocial history and clinical notes, occupational therapy and speech-language therapy testing and progress notes, psychiatric record notes and educational plan progress and review reports. Staff interviews were performed with each student's social worker, primary educator, psychiatrist, milieu supervisor and speech-language pathologist to obtain data relative to current and historical functioning and progress, and to clarify any ambiguous data in the student files. Consent was obtained from legal guardians of both youth for confidential use in a case study for presentation and publication purposes. Data were reviewed by the authors for each student's individualized educational and therapeutic plan in areas of functional life and academic skills. Progress was recorded in each area as applicable.

3. Results

The focus of this study was to determine the progress of two individuals who experienced the Educational Options Program, an alternative, non-classroom based, comprehensive special education and mental health intervention. Common areas of improvement were medical health, violence/aggression, communication, social skills and educational ability. While both students are still students of the Educational Options Program, their progress during their respective 20 and 12 months of participation is remarkable.

3.1 Improved Health

Since joining this program, both students have been able to tolerate regular visits with both their primary physicians and dental care providers. Both students have exhibited improved health as a result of a closely-monitored and structured diet and exercise routines.

3.1.1. Medical appointments

Student A entered the program demonstrating a high rate of perseverative verbal language whenever an appointment with a medical provider was anticipated. Asking questions about what would happen and whether he would be safe would increase in frequency and intensity due to his anxiety. Currently, episodes of perseverative language have decreased significantly when medical appointments are anticipated, with Student A now accepting a

caregiver's response on the first occurrence and discontinuing further questioning. In addition, Student A requires considerably fewer verbal and physical prompts to complete the components of medical appointments including entering the vehicle for transport to the appointment, waiting in the waiting room and interacting with medical providers. Student A is currently up-to-date on all medical appointments. Student B initially demonstrated frequent and severe refusal behavior when staff provided verbal predictions of scheduled medical appointments. This refusal behavior resulted in numerous missed appointments and, in the case of optometry services, Student B was discharged as a patient. Currently, Student B is up-to-date on all medical appointments with the exception of optometry.

3.1.2. Physical activity

Regarding exercise and physical activity, refusal behavior regularly escalated into aggression toward staff members when Student A was directed to initiate physical activity such as going for a walk in the community. His treatment routine now includes an opportunity for physical activity which Student A willingly participates in daily. Student B has also progressed from demonstrating severe refusal behavior with escalation involving self-injury and property damage to participating in a physical activity period daily without incident.

3.1.3. Illness management

When Student B began the Educational Options program, he was diagnosed with encopresis secondary to lactose intolerance. He experienced frequent episodes of diarrhea as a result of regular consumption of foods containing lactose. Given regular instruction and guidance in dietary management, he is currently able to identify foods that lead to physical symptoms of lactose intolerance and has increased his awareness of what foods to avoid, as evidenced by accurately stating which foods will and will not elicit physical symptoms.

3.2 Violent, Aggressive Behaviors

Student A was discharged from two previous day treatment programs due to self-injurious behavior and serious aggression that rendered two staff members unconscious. During his first 3 months of admission in the Educational Options Program, Student A demonstrated 4 incidents of violent behavior in the form of aggression and self-injury. The overall frequency of these types of behaviors has decreased to 0 incidents of physical aggression toward others over the past 3 months. Upon admission, Student A also engaged in property destruction including shredding clothing, damaging personal belongings (e.g., compact discs) and breaking household goods (e.g., windows). During his first 3 months in the program, Student A engaged in such property destruction in 50% of incidents when he was emotionally and behaviorally escalated. In the past 3 months, property destruction has occurred in only 8% of incidents.

Student B demonstrated physically unsafe behavior in the form of physical aggression and property destruction in 44% of program days during his first 3 months of admission. During the most recent 3 months, he has demonstrated physically unsafe behavior in 9% of program days, a 35% improvement.

3.2.1. Sexually Aggressive Behavior

Upon admission, Student B struggled with sexual threatening to and contact with others and inappropriate sexualized behaviors. He would frequently engage in episodes of behavioral escalation and attempt to physically contact females and males in a sexual manner. During the first 3 months following admission to the program, Student B was achieving a 79% success rate in meeting his program objective to refrain from sexual threatening and contact. During the past three months, his average has increased to 96% with no incidents of sexualized contact during behavioral episodes and only two occurrences of inappropriate sexualized behaviors.

3.3 Adaptive Behavior

Within specific instructional goals in the area of adaptive behavior, Student B's progress has increased an average of 29% since entering this program. These behaviors include transitioning between activities without physical aggression, replacing verbal threatening and physical aggression with adaptive strategies, resolving conflict with specific techniques and completing assigned tasks and routines without attempting to alter/change them. In addition, goals targeting task completion while maintaining adaptive behaviors, unable to be addressed at admission, now yield a 75% average success rate.

3.4 Safety Holds

During his initial months after admission to the agency, Student B's behavioral incidents required physical intervention in the form of safety holds 20-30 times per months in order to de-escalate and resume participation in ongoing programming. Within the past 3 months Student B has required an average of five holds per month and is typically able to de-escalate given physical space and only verbal prompts from staff.

3.5 Communication and Social Skills

Student A has made significant gains in his social behavior, both within goals designated from his program and in overall social functioning. Since beginning participation in the Educational Options Program, he has made 22% progress on his social functioning goals and has transitioned from receiving nearly all of his instruction within an individualized setting to participating with his peers during daily vocational programming and during snack and lunch periods for an average of 1 hour per day. Student A's willingness to interact with others has improved from pulling his shirt up over his head, engaging in fantasy role-playing conversation and re-enacting movie scenes when he saw an unfamiliar person to now reciprocating eye contact, greeting others and initiating comments and humor. Whereas his initial placement in the program focused on safety and containment, Student A's current programming now consistently addresses direct instruction in more than seven different skill areas.

As compared to his initial Educational Options Program requirement of receiving home-based speech-language therapy and occupational therapy services due to the frequency of occurrences of aggressive behavior, Student B currently attends these services in a school-based setting several times per week. When first attending sessions in the school setting, Student B was unwilling to interact with his peers. Within the past 4 months, he has attended two school social functions (i.e., school dance, holiday party). At times he independently initiates joining his peers in group leisure activities such as kickball games and participates in weekly group leisure activity. Goals and activities within speech-language sessions have changed from a focus on improving Student B's speech intelligibility to teaching him to monitor the social cues of his communication partners in order to engage in interactions more effectively. He has demonstrated a 44% increase in progress toward social communication goals and has a recommendation to transition from individual speech-language therapy sessions to group sessions.

3.6 Educational Skills

Since beginning the Educational Options Program, Student A's progress toward achieving his program goals has increased by 26% in reading and 13% in mathematics. Likewise, the content of his academic goals has progressed in difficulty from a beginning first grade level to a middle second grade level. At admission, Student A was able to decode two- and three-letter words. Currently, Student A is able to decode four-letter words which has led to improved comprehension of written passages. Vocational tasks, that were not able to be addressed upon admission due to the frequency and severity of challenging behaviors, are currently addressed daily.

Within the past twelve months, Student B has made significant gains in all areas of academic achievement. He has exhibited a 39% increase in reading skills and an 11% increase mathematics skills. Additionally, Student B's plan includes two new vocational goals, an area that was unable to be addressed previously. Within the past 2 months, he has moved to vocational programming at a nursing home once per week where he performs parallel work alongside nursing home staff. Student B can also now take directives from a job coach that does not work with him on a daily basis.

Student B's most significant progress area is in the amount of time he is able to engage in a single task. Upon admission, Student B used a 3-minute activity schedule where he would transition to a new, less-favored task every three minutes due to his inability to maintain focus. Currently, Student B is able to engage in academically-related activities for up to 15 minute sessions. Likewise, upon admission, Student B consistently sought to change activities on his daily schedule or refused predicted activities. As a result, he could tolerate a visual schedule containing a maximum of three activities. Currently, Student B is able to follow a daily schedule with only infrequent requests for changes and no instances of refusing activities. He is able to tolerate advanced prediction of activities in half-day/3-hour blocks with 6-10 activities presented visually with only verbal prompting.

3.7 Community Involvement

Both Students A and B engage in community-based instruction as part of their programming. Student A engages in daily vocational and leisure activities within the community but initially required these to be structured as individual activities with limited interactions with others. He was shy and hesitant, often pulling his shirt up over his head to avoid interaction. He also manifested anxiety while in the community and engaged in property destruction of the program van. Currently, Student A successfully engages in community-based activities where he is prompted to interact with others. He is consistently able to demonstrate appropriate social behaviors with members of the community: initiating and responding to greetings, asking and answering questions and presenting with a more relaxed demeanor. While Student A can still become overwhelmed and anxious in the community, over the past 3 months he has been able to verbalize his feelings and ask for space and time away from staff to self-regulate. During this time, there have been no instances of property destruction during community-based outings.

Student B currently engages in community-based instruction for up to 2 hours per day. Upon admission, Student B would often refuse community outings and escalated to the point of maladaptive behaviors. Participation was reinforced with an incentive after each successful community outing. Over the past three months, Student B has progressed from a daily reinforcement schedule to a delayed, weekly reinforcement schedule, with zero refusals to complete community-based activities.

3.8 Successful Program Elements

Upon case reviews, it became apparent that particular strategies were instrumental in contributing to these students' successful gains. These included the following tactics:

Constant vigilance regarding interventions.

The overriding strategy consistent in programming is constant reassessment and re-designing of practices, services and programming. Examples of this include providing students with individualized daily schedules of activities, notifying them in advance of a change in schedule and providing updated written staff protocols to ensure a consistent response to behavioral incidents.

Aligning the right staff in the right jobs.

Hiring staff who are not intimidated by the youth, ensuring staff are not offended by the youths' behaviors, assigning a special supervisor to oversee programming and having a formal communication/interagency forum for interdisciplinary exchange of educational and clinical information and service planning has provided a consistent and secure base for students. In addition, staff are hired to work with one particular student on a daily basis to help promote consistency with programming and interventions and to facilitate relationship building.

Understanding Autism Spectrum Disorders and mental retardation.

In order to provide the most effective instruction, staff regularly participate in training opportunities in evidence-based strategies for educating individuals with Autism Spectrum Disorders and mental retardation. Agency-wide initiatives have been implemented to train staff in effective instructional practices in the areas of academic and social skills, emotional and behavioral regulation and functional communication.

Planning.

Anticipating student reactions and identifying stressors is key to successful intervention. Educational staff in the program meet daily as a group to discuss and refine programming and treatment. Community trips are considered in full before embarking to arrange for any special accommodations to prevent unexpected negative student response. Daily visual schedules are used to provide prediction of upcoming transitions as well as give task-specific supports for routines. A community book and accompanying social scenarios are used to prepare for and supplement instructions about community outings. Contracts are also used for community outings and outline steps, expected behaviors and possible responses should a student choose to violate the agreement.

Structuring the environment.

Individualizing the necessary level of structure for each student has resulted in positive gains. Academic learning occurs in a setting with closed doors to limit external visual and auditory stimuli. Within this setting, visuals including posters and other decorations are kept to a minimum to prevent distractions. Desks are strategically placed away from the doorways to minimize elopement temptation.

4. Discussion

These two case studies demonstrate the effectiveness of an Educational Options Program for two very difficult-to-educate students suffering from severe delay and mental health challenges. While both students continue to be involved with the program, their significant gains in important aspects of daily living and learning are remarkable. These youth were deemed non-educable in other special education settings. Clearly, the careful interventions and specifically designed support delivered in this program allowed these students to make gains they would have otherwise likely never experienced. While the program is still new, its results are promising and offer hope to students who present with severely challenging educational and psychological needs.

4.1 Limitations

These two case studies, while showing improvement and promise for two youth, comprise a very limited sample from which to judge the effectiveness of the agency's non-traditional, non-classroom based Educational Options Program. Nevertheless, educators know intuitively that youth are educated and helped one child at a time and the gains these youngsters have made are authentic and important. Future work to improve scientific rigor will include adding formalized interviews and structured observations to the method, expanding the sample to include all youth in the program, tracking skill maintenance and generalization post-EOP participation and testing specific interventions with comparison cases.

Acknowledgement

The authors would like to acknowledge Andre Grimard and Dr. Mary Melquist for their assistance with study implementation, data collection and manuscript editing.

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