

Evidence-Based Interdisciplinary Treatment for ADHD: Implementation in a Private Practice Setting

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Abstract

The United States' evolving health care system and the recent focus on integrated care underscore the relevance of multidisciplinary approach to psychological treatment. Evidence-based treatment for ADHD that is grounded in a multidisciplinary one-stop shop approach is discussed. A case study is presented, illustrating strategies for utilizing empirically supported multidimensional treatment for ADHD in a private practice setting. Challenges and limitations of this model are also discussed.

Key words and phrases: EBT for ADHD; multidisciplinary treatment of ADHD; interdisciplinary treatment of ADHD; treatment of ADHD in a private practice setting.

Evidence-Based Multidimensional Treatment for ADHD

Recent changes in the United States' health care system draw focus to the efficacy of multidisciplinary approach to mental health treatment. This shift arrives in the wake of much data supporting the model. This paper focuses on a case study illustrating evidence based implementation of multidisciplinary, multimodality approach to treatment of Attention Deficit Hyperactivity Disorder (ADHD). ADHD is a neurodevelopmental disorder that emerges in childhood and that is characterized by symptoms of inattentiveness, hyperactivity and impulsivity, or a combination of these (APA, 2013). Research suggests that treatment for ADHD should follow a multidisciplinary, multi- modality approach (The MTA Cooperative Group, 1999a, Mash and Wolfe, 2014). Treatment regimes that combine medication management (MPH Ritalin) with behavioral management (parent training, school-based intervention and summer treatment program) produced better outcome than treatment that focused on either medication management or behavioral interventions and was superior to usual care in community health centers. These results were found to be constant across sample characteristics (Edwards, 2002; The MTA Cooperative Group, 1999b). Furthermore, Pelham et al. (2005) found that combined treatment for ADHD (i.e., medication management combined with behavioral treatment) was more effective than either behavioral or medication treatment alone in improving the following symptoms in children with ADHD: rule following behavior, positive peer interaction, and productivity in both the classroom and recreational settings. Research offers empirical support for multiple components (i.e., parental training and school-based interventions) in treatment of ADHD (Wells et al., 2000). Parent training component was supported by evidence that ADHD in children was associated with negative reactance response pattern in parents, and with transactional negative interaction pattern between children with ADHD and their parents (Wells et al, 2000).

Findings from the 1999b MTA study indicated that each of the MTA interventions (Behavioral treatment, medication management and combined treatment) were more effective than the control condition of usual care in a community mental health center in reducing negative parental responses to a child with ADHD (Wells et al, 2000). Reduction in negative parental discipline in the combined treatment of the MTA study (medication and behavioral treatment) was associated with a reduction in the child's disruptive behavior at school (Hinshaw et al, 2000).

Additionally, a follow-up study to the MTA, utilizing an objective (blind) observational method, demonstrated that the combined treatment was more effective than the medication management or the usual care treatment in improving parental response to the child with ADHD (evident through increased use of proactive parenting techniques) (Wells et al, 2000).

Data regarding school-based interventions indicate that in the decade between 1987 and 1997 there was an increase in the treatment rate of ADHD from less than 1% to 3.4%, but a decrease in the number of ADHD-related visits in private or community –based facilities (Olfson et al, 2003). These numbers may indicate an increased reliance on school-based services that were becoming more readily available through the special education system (Olfson et al, 2003). Training teachers in the use of behavior modification, Cognitive Behavioral Therapy and instructional management strategies was shown to improve the behavior and academic performance of their ADHD students (Miranda et al, 2000).

Direct interventions with children who were diagnosed with ADHD, such as behavior management treatment was found to be effective in decreasing negative behavior, rule violations and distractibility in classroom and recreational settings (Coles, Pelham et al, 2005). Thus, it appears that the literature about evidence based treatment for ADHD supports inclusion of the following elements:

1. Parent training component that includes Psycho-education for parents regarding ADHD, helping parents to structure the environment of the child with ADHD and teaching parents behavior modification strategies to be used at home with the child with ADHD (Edwards, 2002, Mash and Wolfe, 2014).
2. School-based component that incorporates two models: A consultation model that helps teachers to develop appropriate pedagogical and classroom management strategies for the child with ADHD (Edwards, 2000, Mash and Wolfe, 2014) and an advocacy model (advocating for the rights of the child with ADHD to receive special education services (Edwards, 2002).
3. Medication management component that includes the mental health clinician as a referral source for medical consultation (Edwards, 2002) and that employs a multidisciplinary model for the purpose of coordinating and updating treatment status and treatment goals (Edwards, 2002; Jensen 2004).
4. Behavior modification and direct therapeutic interventions with the child (Coles, Pelham et al, 2005; Mash and Wolfe, 2014).

Challenges Implementing EBT in a Private-Practice Setting

Implementation in a private practice of the treatment components described above presents several challenges that have been identified in clinical areas other than ADHD (Weisz, Jensen-Doss & Hawley, 2006). While the literature regarding best practices in treatment of youth’s psychopathology (i.e., delinquency, conduct disorders, ADHD, depression and anxiety) suggest that evidence-based treatment (EBT) is usually superior to usual care (Schifman, Becker & Daleiden, 2006; Weisz, Jensen-Doss & Hawley, 2006), the literature also identifies a “research practice gap” (Hendersen & Mackay, 2006, p.2) in the area of evidence-based practice. Empirical findings regarding best treatment protocols are often difficult to implement in private-practice clinical settings. For example, EBT studies may exhibit limited external validity due to the incompatibility between research and practice characteristics along the dimensions of settings, clients’ and clinicians’ traits (Weisz, Jensen-Doss & Hawley, 2005). Closing the research-practice gap can involve either modifications in research designs to better fit practical realities or modification in care settings to fit EBT’s recommendations.

Challenges of the Multidisciplinary/Interdisciplinary Approach

Although the terms multidisciplinary and interdisciplinary are often used interchangeable, there are differences between the two models. The multidisciplinary approach to treatment involves professionals from various disciplines treating the same individual, each focusing on a clinical need corresponding to the clinician’s respective area of training. The interdisciplinary model, however, requires a team approach, where the professionals develop interdependence (Bronstein, 2003) and rely on each other to accomplish their respective tasks and treatment goals. However, this model may at times create conflict when there are differences in professional values among the different professionals in the team, when the team members need to compete for resources or control and authority, or when the team members lack understanding of the role of the other professionals in the interdisciplinary team (Fast, 2003). Fast (2003) suggests that structural and behavioural changes in the interdisciplinary team that focus on clarification of goals and respective job descriptions, is helpful in promoting productive collaboration within the interdisciplinary team.

Bronstein (2003) explains that flexibility, that is, members' ability to adapt to perspective of other disciplines in the team, and a collective ownership of goals, achieved when the team members share a vision and equally participate in designing and setting goals for the team, increase interdisciplinary collaboration. Nandane (1997) found that a synergistic style of communication, utilizing contribution from all team members promotes collaboration.

The case study below illustrates how the interdisciplinary approach to treatment of ADHD was implemented in a private practice study and how the clinicians have addressed the challenges described above to promote interdisciplinary collaboration and to provide evidence based multimodality treatment of ADHD.

The Case Study

The following is a case illustration that demonstrates practical applications of strategies for delivering evidence-based treatment for ADHD by modifying the traditional sole practitioner model of a private practice setting. The suggested model expands the multi-disciplinary approach to treatment of ADHD paradigm (Wells et al., 2000), by utilizing an interdisciplinary approach. In this model, practitioners, parents and teachers work as a team to allow for treatment across three components (child, parent and school context respectively) that is collaborative while still respecting the unique treatment aspects within each realm. Children need many opportunities to practice therapeutic skills in their daily lives. Therefore, therapists must consider the multilayered context of the child's life in order for him/her to generalize benefits beyond the therapeutic setting. The following case illustrates this approach.

Katie, age seven who was previously diagnosed with ADHD, was referred to psychotherapy treatment by her parents due to their concern over her violent temper tantrums, lack of friends, poor social skills and low frustration tolerance. During the initial parent consultation with the psychologist in the clinic, Katie's parents described their sense of frustration and embarrassment over Katie's behavior. Katie was not willing to participate in most family activities such as Sunday dinner or family outings. She often embarrassed her parents and older siblings with her awkward social behavior in public. The parents felt that Katie was "taking over" and that they were spending most of their parental resources on managing her needs and neglecting their other two children. They often gave in to Katie's demands just to avoid further tension in the family. They felt angry with Katie and at the same time were expressing shame over their negative feelings. When interviewed by the social worker in the clinic, the staff in Katie's school had an additional concern to add to the list. Katie would often get upset by something another student may have said or done (often times innocuous things, sometime typical kid teasing) and she would elope from the classroom and the school building.

Setting treatment goals. In accordance with the EBT recommendations that treatment goals for ADHD encompass multiple components, (Edwards, 2002), Katie's treatment plan has been designed to include goals for her, for her parents and for her teachers. Katie's treatment goals were to increase her frustration tolerance, improve her anger management and increase her ability to cooperate with environmental demands. Goals for the parents were to increase time management skills for the family, to validate the parents' feelings towards Katie's behaviors and to develop realistic and obtainable expectations for Katie. Lastly, the goals for teachers and school personnel were to manage available resources so as not to neglect the needs of other students. These goals were developed with input from Katie's parents, teachers, and the two therapists in the private clinic. The interdisciplinary collaboration allowed for achievement of domain-specific treatment goals by developing consistency in language, motivational tools and consequences across Katie's three dominant environments (home, school and therapy sessions) and for a greater buy-in by Katie's parents and teachers who have been given a voice in formulating the treatment plan.

Treatment within the child context— Play therapy, cognitive-behavioral therapy and behavior modification techniques are all used to teach children how to think consequentially, to accurately recognize and appropriately respond to social cues (Fall, 2001; Landerth, 1991). The following example illustrates how a single session can address symptoms along the behavioral, cognitive, and emotional realms of the child with ADHD.

Direct services for Katie were provided by the social worker. Each of Katie's treatment goals was addressed from the very first session. In order to help Katie comply with environmental demands the session was divided into three segments, each with its own predetermined agenda and boundaries so that Katie can have a clear sense of what is expected of her in any given time. A kitchen timer was used to indicate transitions from segment to segment. The first segment consisted of explaining the rules of the playroom. The task of the therapist, as explained to Katie, was to keep her, the therapist and the playroom safe.

Katie was told that she could decide what to play with. She could choose from board games, dress up activities, puppet play, blocks, puzzles, books etc. The second segment was playtime and exploration of the setting. The third segment was clean up time, followed by rewards for successfully accomplishing the task.

Katie's unstructured playtime was filled with high energy and limit testing. The therapist allowed Katie to explore the different toys and games at her own pace. This served two purposes: First, Katie could familiarize herself with the playroom environment. Second, the therapist used this opportunity to assess Katie's skills in interpreting and responding to social cues. For example, the therapist would engage in parallel play or would directly ask Katie whether she could join in a specific activity. Katie maintained poor eye contact and actively avoided the therapist by either abandoning the activity for another one or by climbing on her parent's lap. During the third segment, clean up time, Katie's temper tantrum erupted in full force. Katie's disappointment over playtime termination was first expressed with obstinacy and quickly rose to violence even though she knew there would be a candy reward for compliance. This was an opportunity to utilize social learning techniques: the therapist held firm and instructed the parent to model the clean up for which the parent received a candy. Some blocks were intentionally left out so that Katie could be offered multiple opportunities to comply. When the timer went off again to indicate the end of clean-up time, Katie's disappointment turned to rage. She needed to be blocked from hitting and kicking objects and people. Katie's mom was instructed how to hold her in a safe hug until the rage had expired. At this point the social worker added a component of mind/body work to encourage connectivity between Katie's acute emotions and bodily signals to language expression. Katie's mom was instructed how to restrain her and how to verbalize the emotions expressed by Katie's behavior using a soft non-judgmental mantra-like style. This was designed to help Katie to connect her behavior with her emotions via words that she would in time internalize. Internalization of an emotional vocabulary provides an avenue by which the child can begin to recognize a multitude of feelings and to express them appropriately. Being able to recognize, name and verbally express feelings allows the child to begin the discipline of self-regulation.

Katie's tantrum began to lose some energy after about 10 minutes of being restrained by her parent. While Katie was calming down, she kept repeating the following phrases: "I'm bored" and "I don't care". Clearly, Katie lacked the vocabulary to accurately identify and express her intense feelings. At this juncture, the therapist was able to engage Katie with another aspect of mind-body work. The therapist led her to a mirror and strongly encouraged her to look into it; then articulated Katie's bodily expressions and linked them with specific emotional labels ("When I see you with clenched fists and teeth, that tells me that you do care and that you are very angry"). This strategy was designed to help Katie identify and delineate her emotions. By the end of the session, Katie was calm enough to comply and put away the last few blocks so that she too, could receive a candy reward.

Treatment within the family context. Katie's case also demonstrates the importance of parental participation in the treatment process. Parents can learn both either in the context of the child's session as in the above example or in separate parenting and/or sibling therapy sessions. Families often need additional support in order to provide the child with consistency of therapeutic goals, language, and behavior strategies across the domains of the child's life. Moreover, research indicates that parental success in reducing negative and/or ineffective disciplines within the family is associated with normalizing children with ADHD's disruptive behavior at school (Hinshaw et al., 2000). As is the usual case with families living with a child who has ADHD, Katie and her parents were caught in a trap of fueling each other's negative energies. Katie's behaviors exasperated the parent's anger and shame and their negative response, in turn, promoted more frustration and less cooperation from Katie. The parents' needed support in dealing with their own feelings (such as guilt, anger, helplessness, and being overwhelmed) surrounding their daughter's issues. Additionally, the family needed help in balancing Katie's needs with the needs of the other members of the family and with restoring a sense of family harmony. Services for Katie's parents were provided by the psychologist in the clinic, often at the same time (but in a different room) that Katie was seen by the social worker, to help the family minimize transportation and scheduling conflicts.

In treatment, Katie's parents were instructed how to coach and elicit appropriate social behaviors from Katie by capitalizing on day-to-day events as opportunities for learning. For example, in order to promote appropriate conversational skills, the parents were encouraged to avoid interrogating the child about her day and instead to ask the child to inquire about the parents' day. This strategy reduces the child's defensiveness and creates a more relaxed atmosphere by which conversation can freely flow. When the parents share events from their day, they model appropriate conversational skills, providing the child with a real life learning opportunity that is tension-free and fun. The purpose of this exercise is to give the child permission to share in like fashion.

In parent training sessions, the parents were helped to examine their cognitive and emotional perception of their daughter. They explored their expectations from Katie and the emotional responses to her behaviors. While the parents were encouraged to accept their feelings of frustration, anger and hopelessness, they were helped to decrease their negative emotions by focusing on realistic expectations. When the parents were able to set realistic goals, they were able to manipulate the environment and utilize methods that would offer more successful experiences for Katie and a greater sense of empowerment for her parents. For example, the parents learned to accept that expecting Katie to sit at the table throughout the entire family Sunday dinner was not realistic. Instead they rewarded Katie for remaining at the table during grace and then allowed her to eat her meal later when she was ready to eat. The parents also learned to plan alternative activities for Katie that helped her to cope in environments outside the home. For example, they complained of not being able to take the family to a restaurant for fear of being embarrassed by Katie's impulsive and hyperactive behaviors. This was remedied when they began to bring crayons, books, or toys along for Katie so that she could remain occupied as she waited for her meal.

The therapy sessions further helped the parents to better structure their time with their children particularly during the hours between the end of the school day and bedtime. This was done by dividing that time period into distinct segments: snack, homework, TV, play, dinner, bath, and reading time. In sessions, the parents practiced how to engage Katie in the decision making to create a set schedule, which accommodated each of these periods. Katie was allowed to choose the order in which these time periods would take place. Requiring Katie to share in the responsibility of meeting her own needs, by committing to a set schedule that she designed (with some help), had the added benefit of freeing the parents to be more responsive to the other children. A set schedule decreased Katie's dependence on her parents by ensuring that she knew what was expected of her and when. The therapist helped the parents to design a pictorial schedule that Katie could refer to as a visual time management aide. The therapist also recommended to the parents that they use kitchen timers to help Katie understand the passing of time.

The parents were reminded that change would not occur instantaneously and that Katie would still need to be prompted. This was just the initial trigger for new growth. To help this process along, a reward chart system was developed with the parents and instituted in the family for all of the children for following the family rules and daily schedule. The scheduling of family daily life events into predetermined segments was a strategy that paralleled the segmentation of therapy session time as well as the segmentation of the school day and helped Katie to generalize adaptive skills across the domains of her life.

It is important to note that the two clinicians were setting aside special weekly times to consult with each other on the case, sharing (with permission for the parents) insights from their respective work with Katie and with her parents, to help guide the treatment and address relevant issues as they have emerged in sessions with either Katie or her parents.

Treatment within the school context. To address Katie's school-based issues it was imperative that the therapists in the private practice collaborate with the teachers and other school personnel. Main-streamed schools that teach students with ADHD are often glad to have an offsite resource to help address the issues involved. Concurrent with Wells et al., (2000) the authors' clinical experience indicates that teachers in the regular education classroom are often torn between wanting to help the student with unique needs and taking away time and attention from the other students. School personnel in regular education settings often lack the special education training to deal with the extra-ordinary circumstances presented by a student with ADHD (Hall & Gushee, 2000). This challenge can be effectively met with an interdisciplinary approach to a treatment that is geared towards maintaining consistency of therapeutic goals, language and behavior strategies across all aspects of the student's life. It is important that the student experiences the same consequences for the same behavior (positive or negative behavior) in school, home, and therapy (Wells et al., 2000) and that she hears the same terminology in each of these domains (particularly with regards to connecting behaviors and emotions to expressive language). It is important for the student's skill growth and self-esteem that she knows that the adults in her life are all "in the know" and on the same team: her team. The following example illustrates how the therapist joins the parents in school meetings with the teachers and guidance counselors in order to discuss and agree upon common goals, strategies, and language that will be repeated buzzwords for the student.

Katie's elopement from the school and her frequent melt-downs were addressed in inter-disciplinary meetings which included the parents, the teachers, school psychologist, the principal and Katie's therapist (the social worker in the clinic). A functional behavioral analysis was conducted in these meetings (based on teachers' report) to identify and modify the environmental antecedents to the behavior. Additionally, the inter-disciplinary team has explored tactics to diffuse a situation before it could rise to the bolting stage. When Katie felt overwhelmed by the classroom atmosphere, she was instructed to go to an alternative time-out location, typically an administrative office down the hall, where she could remain until she was ready to return to the classroom. Sometimes she would only need five minutes alone and sometimes a designated adult would be needed to talk through the situation with Katie.

The inter-disciplinary team developed an emotional vocabulary ("buzz words") that the adults agreed to use uniformly, across all domains (home, school and therapy sessions), to describe Katie's specific behavior. For example, if, while attempting a complicated task, Katie appeared to hunch her shoulders, tense her facial muscles and/or hold her breath, the adult (parent, teacher or therapist) would identify and label these behaviors as expressions of frustration. This increased Katie's familiarity with the mind-body connections that were practiced at home and in therapy, and the common terminology helped to increase accuracy in the communication among the members of the team. Additionally, the team discussed methods to provide tactile feedback when Katie's anxiety level appeared to be rising. Using a technique that was familiar to Katie from therapy session, the therapist coached the teachers to give subtle tactile feedback by placing her hands gently on Katie's shoulders, thus reminding her to release them and to take a slow, deep breath. This also served to increase Katie's awareness of her mind-body connection and to provide continuity of feedback from one setting (the therapeutic play room) to another (the classroom).

Another collaborative effort of the inter-disciplinary team involved responding to Katie's behavior at school with consequences that adapted to her needs without compromising the classroom protocol. When Katie began to be a chatterbox with a new friend in her class it became very distracting to the teacher during lessons. Although this represented an improvement in social skills for Katie (she had a friend to talk to), it was not productive in the classroom. The therapist coached the teacher to compliment Katie for having a friend but then to separate them for the balance of the class time thus maintaining appropriate boundaries for Katie without jeopardizing her progress in social skills development. This also helped to increase the teacher's motivation to engage in this strategy since she felt that the therapist remained sensitive to teacher's perspective regarding the environmental demands of the school.

The therapists coordinated meetings, frequent phone consultations and consultations via email with parents, teachers and school personnel. These were set up at regular intervals to monitor Katie's progress in achieving her treatment goals. The day-to-day information that the school and family provided to the therapists was hugely valuable and served as a loop that propelled the context of the child-directed therapy and the parents support sessions, respectively. It allowed the therapists to ground the therapy session in actual events that took place in the child's life, thus holding the child accountable for her behaviors. The open communication between the school, home and therapists lets the child know without having to say anything, that whatever struggles or triumphs she has, will be re-visited in therapy. The pressure is off the child to initiate the sharing. The therapist can start the session by plunging into the issue. The "advance warning" that teachers and parents provided to the therapist allowed for her to set the stage (the playroom) with activities that would help pursue the issue at hand. In Katie's situation that usually meant having plenty of puppets near by. For some children, it would be a day for arts and crafts, as that is the medium by which they more actively explore difficult areas. Once the topic was raised, Katie generally had no apprehensions about jumping right into the task of either celebrating a job well done or exploring and practicing how to understand and react to a situation in a way that would yield a more positive result in the future. Open non-judgmental, non-punitive, non-competitive, forthright communication amongst all of the primary adults involved in the child's life, increased their abilities to jointly foster more successful coping and interpersonal skills.

Coordination of interdisciplinary services. Like many other children with ADHD, Katie presented with a need for multiple types of therapies, including psychopharmacology and occupational therapy. This presented two practical challenges: First, many parents and caregivers become overwhelmed at the task of communicating with various clinicians, thereby decreasing motivation for, and compliance with, treatment.

Second, multiple un-coordinated treatment providers may promote fragmentation in the delivery of service, and can be counterproductive due to the lack of matching treatment goals among the different disciplines. As in the MTA model (Wells et al., 2000), we found that designating one therapist within the private practice setting to act as case coordinator can help to reduce family stress levels, increase compliance with treatment and promote cohesiveness among components of treatment. In Katie's case, the social worker also acted as a case coordinator, and was orchestrating a concerted treatment plan by maintaining, (with the written consent and release of information from the parents), an interdisciplinary dialogue with all the professionals providing treatment. This included the psycho-pharmacologist and occupational therapist for Katie. Treatment cohesiveness between occupational therapy and play therapy components was achieved when, in consultation between the case coordinator and the occupational therapist, OT goals were incorporated into play therapy. For example in order to increase fine motor control, which was an OT goal for Katie, the psychotherapist encouraged Katie to use play dough, modeling clay, stencils and scissors during play therapy as tools to explore the emotional content of her treatment, thus providing her with additional opportunity to practice her fine-motor control.

Similarly, the case coordinator was working closely with Katie's psycho-pharmacologist, exchanging information regarding Katie's progress in both pharmacological and psychosocial treatment. In our interdisciplinary model, the case coordinator is in an excellent position to provide the psycho-pharmacologist with comprehensive information about the child's overall functioning level. In Katie's case, as her symptoms fluctuated, the case coordinator shared her observations of Katie's functioning with the psycho-pharmacologist. Simultaneously, the case coordinator counseled the parents to take a more active role in their communication with the MD, thus promoting a shared responsibility in the determination of the appropriate protocol of medication.

Collaboration within the interdisciplinary team increased the efficiency of achieving the goals established for Katie's treatment in two ways: first, the open communication patterns, facilitated by the case coordinator, promoted cohesiveness among medical and psychosocial components in Katie's treatment. Second, parental and teachers' compliance with treatment increased when the parents and teachers felt more invested in Katie's treatment and more confident in their ability to meet her therapeutic needs.

Challenges and Solutions

The interdisciplinary model discussed in this paper presents several challenges: First, the model requires parental consent in order to share information (treatment plan, strategies, and progress in treatment) among the professionals involved in the case. Initially, Katie's parents were reluctant to grant consent, especially in regards to sharing information with the school, due to fear of stigmatization. However, including the parents and the school personnel as members of the interdisciplinary team worked to promote a shift from an authoritarian/subordinate to an egalitarian relationship between the school and the family. This, in turn, promoted open communication between the family and the school and increased compliance with treatment.

Second, the current model presents a potential conflict of boundaries: Should the same therapist treat both the parent and the child and/or provide services for the teacher? It was feared that there would be confusion with loyalty and concern about maintaining boundaries of confidentiality, which could cause to the child to feel unsafe in the therapeutic space. The interdisciplinary model described in this paper remains cognizant of these concerns and presents solutions. Each child must have one comprehensive treatment plan that encompasses all the components of the child's life. Multiple care providers can work on achieving the goals of this treatment plan by focusing on different aspects of the treatment plan (child therapy, parenting skills, teacher consultation, OT, PT, Psychiatrists...etc.) yet ensuring the cohesiveness of treatment through open communication, coordination and integration of methods. In Katie's case, and consistent with the literature on interdisciplinary collaboration (Bronstein, 2003; Fast, 2003; Nandan, 1997), frequent consultations among all the care providers, collaboration on formulation of treatment goals and shared design of interventions strategies helped to effectively address her needs across settings, establish continuity of care and promote compliance with various aspects of treatment. We suggest that turning the multidisciplinary approach to treatment of ADHD as suggested by EBT literature (Mash and Wolfe, 2014) into an interdisciplinary approach as described in this paper, where all the professionals coordinate and work together in designing and achieving treatment goals, will result in positive treatment outcomes for a child with ADHD since strategies that are used in one realm impact the effectiveness of strategies used in a different realm.

Finally, the model described in this paper presents a cost-effectiveness challenge since best practice recommendations may be too costly to provide, thereby becoming the luxury of the wealthy (for both clients and providers). Historically, this problem was partially due to the fact that not all the services that are provided as part of a treatment plan were reimbursable by insurance. For example, some frequent co-morbid diagnoses (such as learning disabilities) are not reimbursable. Additionally many direct and indirect services such as those that are required to coordinate treatment, have not been reimbursable and many families find it difficult to cover such costs out of pocket. A discussion of solutions to these challenges is beyond the scope of this paper, but future research regarding EBT for ADHD should take these obstacles into consideration and advocate for changes in reimbursement policy for treatment of ADHD that would be congruent with recommended treatment regime. Hopefully, the recent integrated care initiatives in the United States' national health care system will help to address financial challenges associated with interdisciplinary care in general and care of ADHD in particular.

Conclusion

In sum, this case illustration demonstrates that the interdisciplinary model for EBT of ADHD in a private practice responds to several challenges by offering the following advantages: It allows for more flexibility in executing a comprehensive treatment plan. It allows for collaboration of multiple care providers (including parents or other caregivers) on one case, offering simultaneous therapy for the child and support for the family and school respectively. Several members of the family (i.e., the child with ADHD and one or both parents) can be seen together with two therapists providing coaching and modeling in resolving family issues. This approach allows both child and parent (or primary care giver) to feel individually supported. Finally, the interdisciplinary model allows for transparency across disciplines, thereby increasing effectiveness of treatment and motivation for compliance.

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