Post-trauma: Is evidence based practice a fantasy?


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Table of Contents


Page 12: Supervising Trainees in Acceptance and Commitment Therapy for Treatment of Posttraumatic Stress Disorder - Robyn D. Walser and Darrah Westrup

Page 17: Behavioral and Psychological Assessment of Child Sexual Abuse in Clinical Practice - Prof. Savita Malhotra (M.D.; Ph.D; F.A.M.S) & Dr. Parthasarathy Biswas (M.D.)

Page 29: Summary of Mode Deactivation Therapy, Cognitive Behavior Therapy and Social Skills Training with Two Year Post Treatment Results - Jack A. Ap sche, Christopher K. Bass & Alexander M. Siv

Page 45: Parent Training for Families of Children with Comorbid ADHD and ODD – Jeffrey S. Danforth, Ph.D.

Page 65: Trichotillomania: Behavioral Assessment and Treatment Interventions - Brandy L. Kell & Victoria E. Kress

Page 73: Effect of Behavioral Activation Treatment on Fibromyalgia-Related Pain Anxiety Cognition - Duane A. Lundervold, Chris Talley & Michael Buermann


Page 95: Post-trauma: Is evidence-based practice a fantasy? - Karola Dillenburger, Rym Akhon zada and Montserrat Fargas

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* Full author contact information must be included in the article.

Thank you!

The Behavior Analyst Online Journals Department

Message from the Editor:

I would like to thank Melissa Apsche for her efforts in getting this issue of IJBCT completed. She has assisted in the preparation of each article for this edition and went way above and beyond in the formatting and preparation of articles!

Yes she is my daughter and yes she seems to get me focused and she doesn't allow me to be my temperamental self!

I hope Melissa will join our staff and help make this journal preparation as smooth and professional as this edition!

Thank you Melissa, from all of us on the editorial board.

Jack Apsche, (Dad)
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Editorial Comments

As we complete more than one year of publications of the International journal of Behavioral Consultation and Therapy, there are many new directions that I would like to see our journal move toward. One of the directions that is needed is actual treatment research with children and adolescents in the most high-risk environments. African American youths are underserved 64-66% of juvenile justice system. This group of adolescents (African American), are seldom the focus of research or mental health treatment. They are lost in the Mental Health system and the Juvenile Justice system as presented in this issue by Lee Underwood and his colleagues.

First, there is not enough emphasis in any journal on underserved populations, for instance, young African American delinquent youth, non-compliant adolescents that my colleges like to write and pontificate about, no, the inner city, youth with no family and a history of aggression and violence. These youngsters are the population that either never makes it into the studies at Universities or grant based. They would either drop out or be non-compliant with the protocol. These are the youngsters that migrate from corrections to residential treatment on a cyclical basis. The evidenced based practices do not look at this population when addressing conduct disorders. Many researchers definition of conduct disorders includes youths from rural or less urban centers. Thus, they do not look at youths from major urban centers in the northeastern United States or youths in the inner parts of Los Angeles. This severely limits the usefulness of such protocols. Many of these children have many social service issues that compound the mental health problems that they experience. In addition, they often exist in very difficult educational placements with splintered skills.

I am tired of University based psychologists that claim they have several evidenced based practices for conduct disordered youth, while those of us who actually treat these youths search for effective treatments. Therefore, I ask that all practitioners who work with these youths consider writing articles about their successes and failures in treating this population and submit the to us for consideration for publication.

For all of my colleagues who have all of the answers, feel free to contact me. I will pay your way to Camden, New Jersey and I will allow you to train us in your methodology. I will tape you as you work with these clients and we ill see how effective your methodology appears in a real clinical setting.

Meanwhile the rest of us will continue to look for an effective methodology to treat this population. If other Mental Health professional’s in clinical settings feel that they have something to add to the field, you are challenged to submit a paper about your clinical work to IJBCT.

Jack A. Apsche

Jack A. Apsche
Co-lead Editor
The Cognitive-Behavioral Treatment of Schizophrenia: 
The State of the Art and the Evidence

Brandon A. Gaudiano

Abstract
Schizophrenia and other psychotic disorders are associated with high degrees of impairment and often respond inadequately to pharmacotherapy alone. In recent years, numerous clinical trials have been published showing the benefits of adjunctive cognitive behavior therapy for treating psychosis. However, research in this area has been hampered by the inherent problems conducting psychotherapy research in severely mentally ill populations. This paper provides a brief overview of the cognitive-behavioral treatment of psychosis and discusses the state of the evidence in this area, including its many unresolved issues.

Keywords: Schizophrenia, psychosis, cognitive therapy, behavior therapy, cognitive behavior therapy, acceptance and commitment therapy, empirically supported treatments, randomized controlled trials, literature review

Pharmacotherapy and the Need for Adjunctive Psychosocial Approaches

In recent times, the treatment of severe mental disorders such as schizophrenia has been thought by many to be the almost exclusive territory of psychiatry and psychopharmacology. It is true that the emergence of neuroleptic medications in the 1950s permitted deinstitutionalization for many individuals. In fact, antipsychotic medications are in some ways the real success stories in psychopharmacology, especially when compared to the relatively unimpressive outcomes of drug treatments for anxiety and depressive disorders (Gaudiano & Herbert, 2005). Antipsychotic medications are primarily effective for treating the positive symptoms of schizophrenia, in contrast to the accompanying negative symptoms and other deficits in psychosocial functioning that are quite impairing to daily life. Nevertheless, many individuals suffering from schizophrenia fail to respond to medications as their sole or primary treatment. For example, some treated individuals seem to recover remarkably in certain domains, but nevertheless remain unable to function successfully in society. Many others who would benefit from the medications refuse to take them, either because of a lack of insight or due to intolerable side effects. Still others faithfully adhere to their medication regimens, but continue to experience distressing and impairing “residual” symptoms of the illness.

The atypical antipsychotic agents are assumed by many clinicians to be clearly superior in terms of efficacy and tolerability compared to their first generation counterparts, although research suggests otherwise. Perhaps some of the more informative findings in this area come from the recently published Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study (Lieberman et al., 2005), the largest and longest antipsychotic trial of its kind. In this double-blind effectiveness trial, 1,493 people with schizophrenia were randomly assigned to receive olanzapine, quetiapine, risperidone, perphenazine, or ziprasidone for 18 months. Even though noncompliance with antipsychotics is known to be high in this population, study results were nonetheless compelling. By 18 months, 74% of patients discontinued their initial medications. Overall, the atypical antipsychotics studied failed to show superior efficacy or compliance compared to the first generation drug perphenazine. The only exception was in the case of olanzapine, which showed a statistically superior 64% discontinuation rate. However, olanzapine also had the highest rate of discontinuation due to tolerability (18%), which largely resulted from increased weight and metabolic concerns. Olanzapine was associated with an average of 2 pounds per month weight gain. In fact, 30% of patients on olanzapine gained 7% or more of their baseline body weight. Not surprisingly given the high discontinuation rates, the improvement in symptoms observed with these drugs also was relatively poor in the study. The government-funded CATIE study provides the most comprehensive and extensive data on the effectiveness of antipsychotic agents to date, and clearly highlights a potential role for adjunctive interventions for patients with schizophrenia.
Historical Antecedents to Modern Approaches

Although certain types of psychotherapy have become the primary, adjunctive, or alternative evidence-based choices for many people experiencing anxiety or depression, their support in the treatment of severe mental illnesses has been lacking historically. This situation has been changing considerably over the past decade, although relatively slowly, especially in the U.S. Psychoanalytic etiological theories and treatments for schizophrenia are partly responsible for setting early efforts back in this area. One of the most trenchant analyses of the negative impact of psychoanalytic thinking on our psychological understanding of schizophrenia comes from Martin Willick, a noted psychoanalyst himself. Willick (2001) notes the damage done by psychoanalytic formulations positing that schizophrenia is a result of ego impairment due to inadequate infant caregiving. This erroneous theorizing, largely based on case studies and clinical observations, not only alienated many patients and families, it also produced treatments that were ineffective and even harmful in some cases. The famous Chestnut Lodge studies documented the problems attempting to use psychodynamic therapy for schizophrenia without medications (McGlashan, 1984, 1988). Many concluded from these early attempts that people with schizophrenia simply were not amenable to psychotherapy, and abandoned their efforts (Mueser & Berenbaum, 1990).

Fortunately, others were making successful inroads into the treatment of schizophrenia using behavioral and cognitive therapies. These newer treatment approaches focus more on practical goals such as improving symptom management, coping, and functioning abilities in patients. Behavioral approaches have typically employed strategies derived from operant conditioning and social learning theories. For example, token economies, originating in the 1950s and 1960s, are effective for increasing adaptive behaviors in chronically ill patients (Dickerson, Tenhula, & Green-Paden, 2005). Currently, token economies are being used as a successful part of behaviorally-based rehabilitation programs for chronically ill patients, such as the Social-Learning Program (Paul, 2000). Another successful behavioral intervention is Social Skills Training, which employs didactics, modeling, behavioral rehearsal, corrective feedback, and homework to correct the interpersonal skills deficits commonly found in those with chronic mental illnesses. Although improvements in the areas specifically targeted by the intervention have been demonstrated in controlled trials, findings regarding the generalization of skills and improvements in broader outcomes (e.g., rehospitalization rates, psychosocial functioning) have been more equivocal (Mueser & Penn, 2004; Pilling, Bebbington, Kuipers, Garety, Geddes, Martindale et al., 2002).

Belief modification techniques also have been attempted over the years with psychotic patients and reported mainly in the literature as case studies. For example, over fifty years ago, Beck (1952) reported on the successful use of cognitive therapy in a patient with treatment-resistant delusions. Based on this early success, Hole, Rush, & Beck (1979) treated eight delusional patients with cognitive therapy and also reported positive results. Levine, Barak, and Caspi (1995) reported the use of cognitive techniques to foster “cognitive dissonance” in a patient with paranoid schizophrenia only partially responsive to medications. However, it only has only been over the past decade or so that comprehensive cognitive behavior therapy (CBT) packages have been developed and tested in controlled trials for treating the core symptoms and related areas of functional impairment associated with schizophrenia and other psychotic disorders.

The Cognitive-Behavioral Treatment of Schizophrenia

Although there is no one standardized CBT package for schizophrenia, most share several common features. In many ways, these protocols are similar to CBT for anxiety and depressive disorders. However, protocols for schizophrenia contain specific modifications due to the multiple domains of impairment characteristic of the illness, as well as the particular challenges engaging and working with
patients experiencing psychosis. Kingdon and Turkington (2005) provide a representative description of the treatment of schizophrenia from a cognitive-behavioral framework. The following description is drawn heavily from their work. First, much attention is given to creating and maintaining a productive working alliance with patients. In many ways, developing a collaborative working relationship with the patient is critical for successful treatment. Therefore, initial sessions are spent building a trusting therapeutic relationship that must be maintained for the duration of treatment. Initial assessment and goal setting may help facilitate this aim. A thorough assessment of the patients’ symptoms and functioning based on standardized rating scales is essential for gauging any future improvement. However, the assessment process should also help the therapist to more fully understand the patient’s experience of psychotic symptoms. For example, what is the patient’s degree of belief in the “validity” or reality of the hallucinations or delusions? How frequently are the symptoms occurring? How much distress is associated with the symptoms? What events appear to provoke or exacerbate psychotic symptoms? What beliefs does the person hold to explain these symptoms? Recently validated measures of psychosis, such as the Psychotic Symptoms Rating Scales (PSYRATS, Haddock, McCarron, Tarrier, & Faragher, 1999), may be particularly useful for assessing the phenomenology of psychotic symptoms in a more structured fashion.

Kingdon and Turkington (2005) also describe the utility of providing a normalizing rationale when working with psychotic symptoms. For example, they propose discussing with patients how psychotic symptoms can be viewed along a continuum, and how these experiences can occur in almost any person due to sleep or sensory deprivation, emotionally traumatic situations, head trauma, or drug use. In addition, a diathesis-stress model (Zubin & Spring, 1977) of illness is used to explain psychotic symptoms as it allows for the incorporation of a biopsychosocial approach to treatment. Biological (e.g., heredity, birth trauma), social (urban living, immigration, stigma, expressed emotion), and psychological vulnerabilities (cognitive biases, avoidant coping, personality traits), when combined with environmental stressors, are thought to produce, maintain, or exacerbate many of the symptoms characteristic of schizophrenia and psychosis. This model is presented to the patient as a way of understanding psychotic symptoms and as a rationale for the treatment approach. Also in the early stages of treatment, the therapist and patient collaborate in forming individualized treatment goals based on information obtained from the standardized ratings and clinical interview. This initial approach to treatment helps the therapist to establish a collaborative working relationship with the patient. It also serves to begin the process of helping patients to decatastrophize and normalize their psychotic experiences, laying the groundwork for the development and use of more adaptive coping strategies.

Other aspects of CBT for schizophrenia include the presentation of the fairly standard cognitive therapy framework, which includes a discussion of activating events, dysfunctional beliefs, and behavioral consequences; the identification of common cognitive distortions in thinking; and the generation and testing of alternative beliefs. Often, the therapist uses this model to address anxiety and depressive symptoms before tackling psychotic symptoms to improve the therapeutic relationship and to decrease distress that may further maintain hallucinations and delusions. Once a collaborative relationship has been established and the patient has been familiarized with the cognitive model and approach, work is started on the positive symptoms of psychosis, including hallucinations, delusions, and other aspects of thought disorder. For example, delusional beliefs can be reality tested by devising behavioral experiments and formulating alternate explanations using a guided-discovery process. Hallucinations can be targeted using monitoring forms, logical reasoning exercises, and stress-reduction coping strategies to decrease their negative impact. The way in which the therapist works with psychotic symptoms is critically important. For example, in an early clinical trial, Milton and colleagues (1978) found that delusional beliefs decreased in patients treated using Socratic questioning techniques, but not in patients treated with a more confrontational style of disputation.
Typically, negative symptoms, such as affective flattening, anhedonia, and social withdrawal are targeted later in treatment using activity scheduling and social skills training. The final phases of treatment typically involve working with the patient’s more underlying dysfunctional beliefs and “schemas,” and formulating a relapse prevention plan based on the skills learned throughout treatment. Booster sessions also are frequently employed to help transition patients out of treatment. Figure 1 presents an overview the aforementioned approach (adapted from the work of Kingdon and Turkington, 2005).

![General Model of CBT for Schizophrenia](image-url)

**Figure 1. General Model of CBT for Schizophrenia**
Current Empirical Support for CBT for Schizophrenia

CBT for schizophrenia is designed for use as an adjunctive treatment to pharmacotherapy. Therefore, early randomized controlled trials often employed additive research designs, comparing treatment as usual alone to treatment as usual plus CBT. Of course, this design does not control for additional therapy and contact. After several studies showed clear benefits for CBT beyond standard care, well-designed studies began to appear comparing CBT to “nonspecific” interventions, most commonly supportive therapy (for a more detailed review, see Gaudiano, 2005). Not surprisingly, results comparing CBT to an alternate therapy were less impressive. Several meta-analyses have been published over the years summarizing the treatment outcomes reported in trials of CBT for psychosis. Based on a recent analysis of 19 clinical trials, Tarrier and Wykes (2004) reported an effect size difference between CBT and comparison conditions of .37 at post-treatment on positive symptom measures, which represents a modest treatment effect. An earlier meta-analysis of 7 trials by Gould and colleagues (2001) found effect size differences of .65 and .93 at post-treatment and follow-up, respectively. Most of the studies that Tarrier and Wykes analyzed were conducted on chronically ill patients whose symptoms had not adequately responded to medication treatment. Furthermore, these authors combined studies using additive designs along with those comparing CBT with a non-CBT therapy. These factors likely resulted in the more modest effects found in their meta-analysis. In addition, Tarrier and Wykes analyzed the methodological quality of the 19 trials. Findings suggested that methodological rigor was inversely related to outcome. In other words, the more rigorous clinical trials showed smaller treatment effects for CBT. In addition, unblinded trials showed greater treatment effects than those using blind raters.

One question that arises from the modest effects and high degree of variability found in published trials is the clinical significance of the treatment results. Jacobson and Truax (1991) defined clinical significance as a return to normal functioning following treatment. Although such an outcome is not likely for the majority of patients with chronic mental illness, clinical significance criteria can still provide a useful metric for understanding the effects of CBT for schizophrenia. First, the change attributed to the intervention must be shown to exceed the error attributable to the measure itself. Second, this reliable degree of change should be large enough to place individuals outside the range of the dysfunctional population, and preferably, within the range of the normal one. Recently, I examined the clinical significance of symptomatic improvement in published trials of CBT for schizophrenia (Gaudiano, 2006). Based on analyses of group means from 12 controlled trials in this area, 42% of CBT conditions compared to only 25% of comparison conditions (treatment as usual only and/or with the addition of non-CBT therapy) showed reliable change by post-treatment or follow-up. In trials showing reliable change, a clinically significant improvement in symptoms (i.e., two or more standard deviations change in the direction of the functional population) was estimated to be achieved in about 16% of patients receiving CBT and 14% in the comparison conditions. Although variability was again a problem in the clinical trials examined, results suggested that some patients were able to achieve substantial benefits from CBT. It is important to emphasize that, as CBT for schizophrenia is provided as an adjunct to other efficacious treatments (i.e., pharmacotherapy), the effects will likely be modest in many cases. However, even a modest improvement in outcome can be clinically important in populations with high degrees of severity and impairment and inadequate responses to standard care.

Although the aforementioned results speak to symptomatic improvement, insufficient attention has been given to date to more functional and longer-term outcomes in trials of CBT for schizophrenia. As discussed, Gould et al.’s (2001) meta-analysis suggested that patients either maintain or continue to improve on positive symptom measures following treatment with CBT, similar to the pattern witnessed using this approach with other clinical populations. Thus far, results have been more equivocal in terms of the effects of CBT on rehospitalization rates. For example, Tarrier and colleagues (2004) compared treatment as usual alone or in combination with CBT for patients with early schizophrenia. However, no
differences in relapse or rehospitalization were found at 18-month follow-up. In another trial, Tarrier and colleagues (1999) compared treatment as usual alone to adjunctive CBT or supportive therapy. At 12-month follow-up, no differences in relapse or rehospitalization rates were observed among the treatment groups. However, Gumley and colleagues (2003) conducted a controlled trial of patients with schizophrenia showing early signs of relapse and found that those receiving CBT in addition to treatment as usual demonstrated lower rehospitalization and relapse rates compared to those receiving only standard care after 12 months. Unfortunately, other functional outcomes, including relationship, employment, or housing status have been inconsistently assessed in currently published trials.

Furthermore, clinical trials have supported the use of CBT for schizophrenia during various phases of the illness and in various clinical subpopulations. As discussed, several trials showed benefits in chronically ill samples with medication-resistant symptoms. In addition, two trials have been conducted using acutely ill, hospitalized samples. In an early trial, Drury and colleagues (1996) randomly assigned acutely ill patients with psychosis to individual and group CBT or to a control condition consisting of structured activities and informal support. Patients receiving CBT showed a greater improvement in positive symptoms and a shorter recovery time. More recently, Startup and colleagues (2004) randomized acutely ill patients with psychotic disorders to treatment as usual alone or with the addition of CBT that began during inpatient treatment and continued on an outpatient basis after discharge. At post-treatment, positive and negative psychotic symptoms and social functioning improved more in the CBT group compared to the control group. Also, the CBT group showed a higher degree of reliable and clinically significant change on the Global Assessment of Functioning Scale compared to the standard care group by 12 months (60% versus 40%, respectively). By 2-year follow-up, the CBT group continued to show superior improvement on negative symptoms and social functioning measures, but not in positive symptoms (Startup, Jackson, Evans, & Bendix, 2005).

Finally, recently completed trials have investigated the use of CBT as an early intervention or to prevent the development of psychosis in patients showing prodromal signs of illness. As discussed, Gumley and colleagues (2003) showed that CBT had a preventive effect in patients at risk for relapse. Recently, Morrison and colleagues (2004) reported results of a clinical trial comparing CBT to treatment as usual in patients at “ultra-high risk” for developing their first episode of psychosis. By 12 months, the CBT condition showed a significantly lower risk of progression to psychosis compared to standard care. Interestingly, CBT reduced the likelihood of the need for the prescription of antipsychotic medication in treated patients. Although the aforementioned applications of CBT for psychosis require more research to replicate results, these early findings are quite promising and show the robust benefits of the treatment when used during various phases of illness.

Some Unresolved Issues

The empirical evidence to support CBT for schizophrenia is substantial and growing, yet there are numerous unresolved issues that require some caution in the application of these techniques and call for additional research in this area. First, there is much heterogeneity among the various CBT protocols used in published clinical trials. The specific elements and techniques often have included a wide range of CBT techniques, as well as some more novel strategies specifically for treating psychosis (Gaudiano, 2006). Although most researchers in this area highlight the cognitive techniques contained in the protocols, it is not clear how important they are to outcomes (Gaudiano, 2005). Further, no dismantling studies (i.e., trials designed to test the efficacy of specific treatment elements) have been conducted to date. Kuipers (2005) recently argued that attempting dismantling studies of CBT for schizophrenia would constitute “reduction ad absurdum,” as it is commonly understood that treatments for chronically mentally ill populations need to be integrative and multifaceted. Perhaps, but then there is little justification for promoting the specific use of cognitive therapy techniques with this population. Such work often requires a high degree of therapist expertise and careful attention to the therapeutic alliance, making for slow
work. The more that CBT for schizophrenia can be refined and simplified, and its effective components understood, the more likely the treatment will be made available as an option to patients in the current U.S. healthcare system.

On a related note, the frequent difficulty that researchers have had showing that CBT is superior to more basic supportive interventions in clinical trials suggests that many of its treatment components are superfluous or without specific efficacy (Penn et al., 2004). Tarrier and colleagues (2001) argued that CBT for schizophrenia may be more effective for some symptoms than others. Their reanalysis of clinical trial data comparing CBT to supportive therapy suggested an advantage to CBT in decreasing hallucinations but not delusions. Future work should not ignore these issues, and should test the differential effects of various elements of CBT protocols on specific process and outcome variables to document that the change attributable to the intervention is based on the actual application of the treatment. The emerging literature on the treatment of depression suggests that improvement in CBT is more likely attributable to the behavioral activation elements of the treatment, instead of its belief modification techniques (Jacobson et al., 1996). It is possible that a similar phenomenon is occurring in CBT for schizophrenia trials, which could mean that we are wasting valuable resources and failing to appreciate the most effective elements of psychological treatments of psychosis. Furthermore, family-based interventions have been shown to be effective adjunctive treatments for schizophrenia that can reduce relapse rates and promote medication compliance (Pilling, Bebbington, Kuipers, Garety, Geddes, Orbach et al., 2002). However, no controlled trials to date have directly compared the benefits of family versus individual psychotherapies for schizophrenia. It will take more sophisticated clinical trial research in this area to better understand the specific efficacy of CBT for schizophrenia, and what may account for its treatment effects.

In addition, it is clear that cognitive-behavioral therapies for schizophrenia are evolving based on the clinical experience and empirical knowledge gained treating this population. Newer treatments are beginning to emerge that focus more on changing the patient’s response to their psychotic symptoms, rather than attempting to directly decrease the symptoms themselves. For example, Cather and colleagues (2005) developed Cognitive Behavioral Therapy (fCBT), an intervention that attempts to improve functional outcomes by promoting effective coping strategies in response to psychotic symptoms, but de-emphasizes cognitive disputation techniques. Results of a pilot study suggested greater improvements in auditory hallucinations for fCBT compared to psychoeducation in patients with residual symptoms.

In addition, two pilot studies have been published on the use of Acceptance and Commitment Therapy (ACT, Hayes, Strosahl, & Wilson, 1999) for acutely psychotic inpatients. ACT is a newer behavioral treatment that promotes radical acceptance of unavoidable psychological distress in the service of pursuing valued goals and actions. In a small randomized trial, Bach and Hayes (2002) provided a few sessions of ACT to inpatients with psychosis. Patients were encouraged to accept unavoidable events, to acknowledge but let go of psychotic symptoms without treating them as either true or false, and to identify and work toward goals that were consistent with their broader life values (for a more detailed description, see Bach, Gaudiano, Pankey, Herbert, & Hayes, 2006). The ACT group showed a 50% reduction in rehospitalization rates by 4-month follow-up compared to the group receiving treatment as usual only. Also at follow-up, those receiving ACT reported less distress from and believability in their psychotic symptoms. Paradoxically, patients receiving ACT simultaneously reported a higher frequency of psychotic symptoms at follow-up, possibly demonstrating increased acceptance of the symptoms.

Gaudiano and Herbert (in press-a) recently attempted to replicate the Bach and Hayes (2002) findings in a similar sample of inpatients with psychosis. Compared to treatment as usual, the provision of a few sessions of ACT produced superior acute outcomes on mood symptoms and disability ratings at hospital discharge, and resulted in decreased self-reported distress associated with hallucinations. Secondary analyses showed that patients’ believability in hallucinations mediated the relationship
between their frequency and the distress produced from these symptoms (Gaudiano & Herbert, in press-b). Only patients receiving ACT showed a significant decrease in the believability of their hallucinations by discharge and a greater decrease in associated distress compared to the control group, even though no attempts were made to directly change patients’ beliefs in the validity of psychotic symptoms. At 4-month follow-up, 45% of those receiving standard care were rehospitalized compared to only 28% of those receiving ACT. Although preliminary, results from these two early studies suggest that enhancing healthy coping abilities and promoting distancing from mental experiences can result in less functional impairment in patients with psychosis. However, more research is needed to determine if these effects are reliable or whether they are specifically attributable to ACT.

Conclusions

Practice guidelines for the treatment of schizophrenia increasingly include recommendations for the provision of family therapy or CBT for schizophrenia (Gaebel, Weinmann, Sartorius, Rutz, & McIntyre, 2005). However, patients are still unlikely to receive these evidence-based therapies, especially in the U.S (Lehman & Steinwachs, 1998; Moran, 2003). Increasing our knowledge base in this area through refined empirical investigations and larger controlled efficacy and effectiveness trials will aid in efforts to make effective psychological services more available to individuals in need. Unfortunately, major funding agencies, including the National Institutes of Health, have failed to devote adequate resources or to seriously promote study in this area until only recently. This lack of initiative may be partly attributable to the supremacy of the biomedical model in U.S. psychiatry and the historical lack of success in this area (Mueser & Noordsy, 2005). However, the result has been that many mental health professionals in the U.S. are ignorant of the advances in psychological treatments for schizophrenia that have been achieved over the past decade and the amount of evidence supporting their use. Contrast this situation with that in other nations, such as the United Kingdom, where psychosocial treatments for severe mental illness are prominently promoted in practice guidelines and are becoming the new model of “standard care” (NICE, 2003). The U.S. currently is far behind the rest of the psychiatric world in this area, and it will take a concerted effort amount various stakeholders, including researchers, clinicians, patients, and their family members, to correct the imbalance.

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Supervising Trainees in Acceptance and Commitment Therapy for Treatment of Posttraumatic Stress Disorder

Robyn D. Walser & Darrah Westrup

Abstract

Acceptance and Commitment Therapy (ACT, Hayes, Strosahl, & Wilson, 1999) is a behaviorally based intervention designed to target and reduce experiential avoidance and cognitive fusion (holding the thoughts in one’s mind to be literally true) while at the same time helping clients to make powerful life enhancing behavioral changes that are in line with their personal values. As a therapeutic approach, ACT is specifically used to help clients come into contact with an experiential sense of knowing, rather than relying too heavily on verbal knowledge. That is, clients are taught to see themselves as a context for ongoing experiential events that include all things occurring inside the skin, emotion, thinking, memories, and bodily sensations, without excessive verbal involvement and control. The goal is to reduce experiential avoidance and move toward meaningful life paths, or more generally, to help the client who has fallen into rigid way of thinking and behaving to become more psychologically and behaviorally flexible.

Keywords: ACT, Supervision, PTSD, Psychotherapy.

Introduction

Clients in ACT are generally led through several stages of therapy that are designed to bring them to a place where they can make healthy life choices, rather than being blocked by believing that negative emotional and mind content must be eliminated or changed before positive action can be taken. In the first stage of ACT, clients are asked about the many ways in which they have tried to eliminate or change what is evaluated as negative memories, emotions, and thoughts and how successful these attempts have been, especially in the long run. When the various change efforts are listed and described, it is generally discovered that these strategies ultimately don’t work. Control of private events is then explored as the second stage of therapy. Here it is pointed out that attempts at control can actually prolong the experience or paradoxically cause the experience to be intensified. Willingness to experience is then offered as the alternative to control. Willingness is made possible by pointing to the sense of “self” that experiences but is not any single experience. For instance, one may have a memory or a feeling that lasts for a period of time, but it soon passes and another experience is there to be noticed and felt. The quality that is being created here is one of being able to observe mind and body as ongoing presence rather than discrete instances of thinking or feeling. This is created through a series of experiential exercises, metaphors, and interventions that help the client come into contact with this observing sense of self, this is seeing one’s “self” as context, - in which content is felt, noticed and experienced without any effort to make it be other than what it is, even if it is related to the trauma. Finally, a great deal of work is done on personal values and choice. The client is taken through a series of exercises designed to help them clarify the values and the goals important to them, and choice is approached as being about action, rather than needing internal experience to be a particular way (e.g. to feel good) before a choice can be made. In sum, the client comes to see him or herself as a whole human being with on-going experience (e.g. thoughts, feelings, memories, bodily sensations) who can choose to live according to personal values as an ongoing process.
ACT with Trauma Survivors

ACT is particularly well suited to treating trauma survivors and initial studies of its use with this population are promising (Walser, Westrup, Rogers, Gregg, & Loew 2003; Follette, Pistorello, Bechtle, Naugle, Polusny, Serafin, & Walser, 1993). Individuals who are struggling with traumatic experiences or who have been diagnosed with PTSD often engage in high levels of experiential avoidance. They actively work to avoid disturbing memories and make numerous and ongoing attempts to rid themselves of unwanted thoughts and painful feelings. That is, they are frequently working to avoid internal experiences and the trauma-related cues that occasion them. Many of the attempts to be rid of these experiences in, and of themselves cause problems. For instance, substance abuse is often used as a way to numb or escape feared emotions or memories, and avoidance of relationships can be a way to escape worries about trust and about being revictimized. Often clients believe that healing from the trauma somehow involves forgetting or getting away from their history of this event, as well as to erase all the emotional and thought processes that accompany the event.

The problems with experiential avoidance as a course of action is that (1) if traumatized individuals have feelings that they "cannot have," then, in one sense, there is something wrong; whole parts of their own experience must be denied; (2) humans are very poor in deliberately eliminating automatic emotions and thoughts; and (3) many of the methods that can be used (e.g., avoidance of situations that trigger the thought or feeling) are themselves destructive. On the surface, avoidance maneuvers constitute attempts to be free from painful events. Unfortunately, the very thing survivors are seeking, a sense of wholeness, can be lost in their efforts to avoid private experience (Walser & Hayes, 1998, pg 257).

This avoidance is targeted as the problem from the ACT perspective. Rather than join clients in a fruitless agenda to erase the memories of the trauma or experiences from the past related to the trauma, ACT helps the client make room for their difficult memories, feelings, and thoughts as they are directly experienced, and to include these experiences as part of a valued whole life.

Supervising Trainees in ACT with Trauma Survivors

One of the key requirements of doing ACT competently is to be able to apply ACT principles in your own life. That is, the therapist must be willing to experience his or her own difficult emotions, sensations, memories, and thoughts in order to work in the ACT frame with effectiveness. In the supervisory process then, we work with supervisees to (1) develop a sense of personal wholeness and relate that same sense to the client who is avoiding trauma, (2) focus on acceptance of emotions and thoughts, both as it relates to their own experience and the experience of their clients, and (3) and to assess the cost of avoidance as it is related to personal values while working to help supervisees and clients take action that is consistent with the same. We have found that one of the most effective ways to begin supervision is to have a trainee go through an ACT workshop. Here they can contact the core concepts on a personal level and can experience all of the metaphors and exercises from the perspective of the receiver. It is not necessary that the supervisor be the workshop leader. If attending a workshop is not feasible, the next best step is to have the trainee join the supervisor in a group or individual session as the supervisor works through the protocol. Each of these options should be done in addition to regular supervision hours.

One way to approach the supervision hour is to have the supervisee conceptualize a case from the ACT perspective and then report on that case weekly. Additionally, in ACT, there is a strong emphasis on the function of behavior rather than the form. It is important to have the supervisee understand how the concept of experiential avoidance offers organization to the functional analysis of trauma-related problems, and how it lends coherence to understanding the sequelae of trauma. If the supervisee can learn
to distinguish instances of human behavior that are experientially avoidant and to recognize the costs of the avoidance, then much of ACT therapy can be implemented correctly and consistently. Helping supervisees to identify their client’s PTSD-related avoidance occurring both inside and outside of the session can help the supervisee to draw on ACT material designed to bring the avoidance to the client’s awareness. There are obvious forms of avoidance such as smoking marijuana every night, or abruptly changing the topic in session, and recognition of these avoidant strategies is fairly easy. However, targeting more subtle forms of avoidance may not only require helping the supervisee to be aware of the client’s avoidance, but also helping them to identify their own subtle forms of avoidance. That is, the supervisor should take the opportunity, as appropriate, to point out when the supervisee might be supporting emotional avoidance rather than undermining it. Examples of this include filling time or silences in sessions with continuous talk when the ACT-consistent strategy would be to simply be present with the silence, moving quickly to problem solve or provide comfort if the client tears up, supporting ongoing talk by the client throughout the session while making no effort to determine the function of the talk, leaving a topic too quickly, or when the supervisee spends time describing and intellectualizing as a means to explain the therapy or “figure it out” for the client. In such instances we work with the supervisee to recognize possible attempts to avoid their emotions such as anxiety, and to explore the workability of this avoidance as it relates to the client’s struggle and to using ACT. In our supervision we have been interested not only in how the client felt in the session but also how the supervisee felt. We then model acceptance by making all that is felt (including what is evoked by the supervision session) welcome while also working on the goals of treating the client.

One of the places where trainees often struggle is in the implementation of the ACT protocol. Trainees tend to be fairly rule-bound in the initial stages of ACT and can get stuck when a client brings something to therapy that doesn’t “match” the current session to be introduced. For instance, one of our supervisees had completed the session designed to help the client identify all of the strategies tried to eliminate or change personal internal experience and had ended the session with a metaphor about “being stuck.” Upon return to the next session, although the supervisee was ready to continue with control as the problem, the client reported not remembering any of the previous session. At that point, the supervisee felt unsure about what to do and abandoned the protocol – and then worked through the rest of the session by doing what the client wanted to do (talk about problems as a form of emotional avoidance). Two things needed addressing in this instance in the supervision session including looking to see if experiential avoidance was present in “not remembering” for the client, and to see if the supervisee was engaging in emotional avoidance in abandoning the protocol. Here, the supervisee was encouraged to check back to the previous session to see if forgetting (which could be created in multiple ways - like the client “checking out” during the session) was yet another strategy to avoid painful material. The supervisee could was then encouraged stay with the first core component, helping the client to further contact what hasn’t worked, rather than abandoning the protocol. The supervisor would also want to check with the supervisee to see if he was avoiding internal experience (e.g. anxiety, not knowing, fear of negative evaluation) when he made the shift from ACT to doing what the client wanted to do. As the supervisor, you can work directly with experiential avoidance, helping the supervisee to stay connected to the goal of the client’s session, with the anxiety or the experience of not knowing, rather than trying to escape or control those internal experiences. In addition, working with the trainee to understand the bigger picture of how mindfulness and present moment processes are integrated with values and committed action can often help to guide trainees in being flexible with the protocol.

Another area of difficulty with implementing the protocol occurs when supervisees become overly concerned about doing the therapy “wrong.” There are ways in which fairly large mistakes can be made, giving messages of control mixed with acceptance or being in a “one-up” position, for instance. However, mistakes can be worked with in an open and compassionate fashion. We work directly, as supervisors, to point out messages of control and to point to the problem of language (see Hayes, Barnes-Holmes, & Roche, 2001) as a human problem, not a client problem. We discuss our own personal
mistakes and model how to address mistakes in therapy. Additionally, we work with the supervisees to notice the thoughts of “getting it wrong” while again, asking them to be with the feelings of anxiety and make a commitment to follow the ACT approach. We focus on doing this in a fashion that functions well for the purposes of therapy. It should be noted that this fear of making a misstep when first learning ACT is not experienced only by trainees. Even very experienced clinicians have reported a similar fear when first doing ACT, a sense that one could do something “wrong.” This is not surprising given that many clinicians have been both culturally and professionally trained to approach troubling thoughts, feelings, etc., from a “fix it” stance—letting clients “have” these experiences and refraining from sending control messages can feel quite foreign. In other words, clinician’s sense, quite correctly, that they could easily do or say something in the session that is ACT inconsistent. Helping new ACT providers and trainees identify and work with this concern is an important function of supervision.

As mentioned, a central tenet of ACT is that the therapist is also working from a stance of experiential acceptance. Although trainees tend to quickly grasp this idea conceptually, in practice it can be quite challenging, especially when control or avoidant strategies are subtle. For example, one supervisee quickly grasped the key components of ACT and efficiently helped co-lead an ACT therapy group through the protocol. However, at the very end of the therapy, where clients (and therapists) are asked to stand before the group and to maintain eye contact without speaking (i.e., to just be “engaged and present” in the stand and commit exercise), this supervisee remained coolly collected although the supervisor could sense that she found the exercise quite difficult. While understandable, this is an example of experiential avoidance that can undermine the therapeutic process. It is likely that the group also sensed the supervisees’ unwillingness to be uncomfortable, this following their own, far less poised experiences with standing in front of the group. Aside from supporting the idea that poise is the goal rather than willingness to “have what one has”, a potential growth experience was lost. That is, the supervisee and the group may have experienced a powerful moment in therapy had she been willing to have (and openly experience) her anxiety.

In another example, one supervisory session was spent working with a supervisee who had self-disclosed information during her session with her client that was not relevant to the session. This supervisee shared that it was important to her to be authentic in her personal and professional life. We worked with her to disentangle whether she valued authenticity for authenticity’s sake, or if authenticity was to be used in the service of other values (e.g., intimate relationships, establishing trust). If an additional value is faithfulness to the ACT therapeutic process, then thoughtfulness around self-disclosure is required – not just authenticity for authenticity’s sake. Further, in examining her internal process more closely, the supervisee realized that the “authenticity” in this case was actually about not wanting her client to perceive her in a certain way. Her self-disclosure was actually a control strategy, aimed at reducing her own anxiety about being perceived as somehow superior to her client.

As can be seen in these examples, a crucial aspect of ACT supervision is the creation of an open and willingness-based atmosphere. Towards this end, supervisors model by sharing their own uncertainties or experiences in therapy, and assist supervisees to do the same. When working on particular challenges that arose during the session, supervisees are often asked whether they were avoiding some experience such as anxiety. We have also found role playing, wherein the supervisor or another supervisee plays the therapist, to be a powerful tool in ACT supervision. We recommend that role playing be a standard part of supervision as it is a great tool for learning the therapy and provides an opportunity for the supervisor to model ACT interventions and metaphors. Occasionally, the role plays lead to a specific area of experiential avoidance that is being enabled by the supervisee. This then presents an opportunity for the supervisee to work on willingness and how it may be applied in the therapy with the client.
Finally, we model in supervision the kinds of things we would like to see happening in therapy. We encourage compassion for self and the client, especially when searching for instances of avoidance and the personal costs associated with the avoidance. We openly work on willingness to experience and commitment to personal values. This includes discussion about personally held values about therapy and about being a therapist. As we are using ACT to develop psychological flexibility in the client, we are also working to create psychological flexibility in the trainee, both in their own lives and in the use of the therapy.

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Behavioral and Psychological Assessment of Child Sexual Abuse in Clinical Practice

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ABSTRACT

This paper discusses the behavioral and psychological assessment of Child Sexual Abuse (CSA) in clinical practice. Following a brief introduction regarding definition and etiology of CSA and discussion on issues of behavioral/psychological consequences of CSA, the paper reviews the various approaches towards behavioral/psychological assessment in establishing validity of alleged CSA. The shortcomings of the various behavioral/psychological assessment procedures and the issues of general consensus on behavioral assessment in CSA have been reviewed. The role of behavioral/psychological assessment in child protection issues is also discussed.

Key Words: Child Sexual Abuse, psychological/behavioral consequences, psychological/behavioral assessment, child protection issues, mental health professionals, post-traumatic stress disorder

INTRODUCTION

In the last two decades there has been an explosion in the number of studies that have concentrated specifically on sexually abused children. Behavioral and psychological assessment of child sexual abuse (CSA) that includes identification, diagnosis, etiology, and social, physical and psychological consequences has been the focus of research. It is important to know about the social, environmental climate in which CSA occurs; indices of behavior and emotions which point towards it and the factors that preclude identification etc.

Definition of what act constitutes CSA has implications in behavioral assessment. The most comprehensive definition has been given by the Standing Committee on Sexually Abused Children (SCOSAC, 1984) which states that “any child below the age of consent may be deemed to have been sexually abused when a sexually matured person has engaged or permitted the engagement of that child in any activity of a sexual nature which is intended to lead to sexual gratification of the sexually mature person”.

Another factor which should be kept in mind while doing behavioral and psychological assessment is the etiology of CSA. It has been suggested that four factors influence the occurrence of CSA (Finkelhor, 1984). First, it is the motivation of the abuser that includes the abuser’s sexuality. Second factor is the absence of internal inhibitions (moral values of the adult). Third factor is the absence of external inhibitors (supervision of child by others) like protective family, secure attachment to the primary care giver, good monitoring of the child’s whereabouts and confiding relationship for the child’s increased chances of abuse (Budin & Johnson, 1989; Conte et al 1989). Last it is the lack of child’s own resistance towards the adult also increases the chances of abuse.

BEHAVIORAL AND PSYCHOLOGICAL CONSEQUENCES OF CSA

The consequences of CSA are both psychological as well as physical. The behavioral and psychological assessment in child sexual abuse should focus on psychological consequences of CSA. Also, the wide range of serious long and short-term consequences of CSA including the need to prevent reactive abuse (abuse of other children by a victim) is one reason why all children suspected to be sexually abused need to be referred for psychological testing and treatment (Glasser et al 2001; Johnson
Children can exhibit a myriad of immediate psychological consequences like emotional disturbances in form of fear, anxiety, depression, anger, hostility and low self-esteem (Browne & Finkelhor 1986; Bentovim et al 1988; Kendall-Tackett et al 1993). These children can also present with various anxiety disorder (fearfulness, nightmares, phobias etc), posttraumatic stress disorder (PTSD), hysterical reactions, depression, suicidal behavior, substance abuse etc. Research reports have shown that 20-70% of children with CSA suffer from posttraumatic stress disorder (Wolfe et al 1991; McLeer et al 1992). However, it has also been estimated that 1/3rd of the abused children show no psychological symptoms or only non-specific symptoms. This allows the abuse to go undetected over prolonged periods (Kendall-Tackett et al 1993).

Browne & Finkelhor (1986) did an extensive review of earlier research on the impact of sexual abuse. Initial effects of abuse that were noted included fear, anger, hostility, guilt, shame, sleep disturbances, eating disorders and an array of sexualized behavior from genital manipulation to pregnancy, ‘mummy/daddy’ and nurses/doctors’ related themes in their play. Sexually inappropriate behaviors are related to early onset of sexual abuse (McClellan et al, 1996). Later effects included depression, anxiety, negative self-concepts, interpersonal problems, a tendency towards re-victimization and self-destructive behaviors.

In a study comparing the parent reports of definitely abused, alleged abuse, and non-abused pre-pubescent females using Structured Interview for Signs Associated with Sexual Abuse, researchers found significant differences between the three groups (Wells et al 1995). The symptoms that did not seem to be related to abuse included nightmares, crying easily, fears of being left alone, bedwetting, headaches, and stomach aches. The symptoms that were significantly different between the girls who were definitely sexually abused and those who were allegedly abused were difficulty getting to sleep, noticeable changes in behavior, fear of being left with a particular person, fear of males, becoming withdrawn, unusual interest or curiosity about sexual matters. It was concluded by the researchers that a parent report can be useful as part of the assessment, regarding the likelihood of sexual abuse.

The effects of CSA can have their ramifications into adulthood as well. Even in adults, varied emotional and psychological reactions occur. Low self esteem, sense of helplessness and self-hatred and disturbed interpersonal relationship in form of marital discord and divorce are seen. Psychiatric illnesses like depression, anxiety, suicidal tendencies, hysterical reactions, sexual problems and borderline personality disorder have been reported in adults with sexual abuse in their childhood (Cotgrove & Kolvin, 1996). The behavioral consequences of sexual abuse are affected by the child’s age, development, physical acts performed, threats and bribes, fear of retribution, fear of culpability, chronicity of acts, child’s resilience and relationship to the perpetrator (Haj-Yahi & Tamish, 2001; Macfie et al 2001; Molnar et al 2001; Hanson et al 2001) and effective treatment.

**PHYSICAL CONSEQUENCES OF CSA**

HIV and other sexually transmitted diseases are seen in children CSA that can have its own ramifications in adulthood. CSA may lead to unwanted pregnancies and rarely genital injuries (Willis & Levy, 2002). However, even in documented cases of CSA, only 50% of cases show physical findings (Muram, 1989). A careful or experienced perpetrator is unlikely to perform an act that will result in his or her detection. Intense and persistent pain, obvious tissue injury, or bleeding can lead to immediate suspicion or detection unless the perpetrator is able to keep the trauma from being discovered. A child who is injured may be kept away from pre-school or school or other adult caretakers until healing occurs. Some types of abuse, such as exhibitionism, voyeurism, viewing or creating pornography, touching and licking may not result in physical findings. Reddening of the skin caused by rubbing will resolve in minutes to hours unless the skin is excoriated. Minor scratches may not be detectable (Johnson, 2004).
Persistent lack of knowledge that physicians have shown about normal and abnormal female genitalia is of great concern.

Emergency room physicians should not misinterpret findings that can lead to a mistaken report of physical trauma, or to failure to recognize trauma (Johnson, 2004). Detailed physical examination including genital and rectal examination is also mandatory in such cases. As far as possible an examiner who is familiar to the child should do the genital examination, as it would help in better cooperation from the abused child. Additionally, a child may be entertained or distracted by the television or any other means. Colposcopy, Foley catheter Technique, Wood Lamp Examination can be useful to get forensic evidences (Atabaki & Paradise, 1999). Most children, even those who have been sexually abused will have a normal genital examination. Although the diagnosis of sexual abuse can never rely solely on physical findings, abnormal findings can make oneself suspicious of sexual abuse especially if there have been previous normal findings (Botash 1997). A practitioner must be aware of specific genital findings, which are normal, abnormal, and suspicious.

**RECOGNIZING OCCURRENCE OF CSA**

**How does one know if a child has been sexually abused?**

Unfortunately, there are often no obvious signs that a child has been sexually abused. Due to the fact that sexual abuse occurs in private and often does not result in physical evidence, sexual abuse can be difficult to detect. Moreover, neither there is a characteristic syndrome of CSA nor any particular symptom that majority of sexually abused children exhibit. Mental health professionals are often unable to decide as to how to proceed further when they are called upon to provide investigative and evaluative procedures in child sexual abuse cases. Their main concerned may be with treating a false allegation as true because it can be traumatizing to the non-abused child and treating true allegations as false. Court appearances are therefore the most stressful aspect of abuse assessments, according to emergency room physicians and specialists in the field (Johnson, 1990; 1999). However, one must prepare to testify as a content expert and a teacher to lay audiences. Meeting with the prosecutor before appearance in court is of value. The physician should educate the prosecutor regarding the medical evidence. A physician may testify for the child due to hearsay exception. This is however, based on the assumption that children do not lie to physicians. This is particularly relevant when the children cannot or will not testify on their own behalf (Peters, 2001).

**Major Theoretical Approaches**

Several methods have been developed that are considered to be scientifically acceptable procedures for determining the validity of alleged abuse in children. Some of the major theoretical approaches in assessment of the child alleged to have been sexually abused are described below:

2. Greenberg’s Conducting Unbiased Sexual Abuse Evaluations (1990)
5. Raskin and Esplin’s Statement Validity Analysis (1991)
Raskin and Esplin’s (1991), “Statement Validity Analysis” (SVA) is a set of interview techniques and analytical procedures for obtaining and evaluating statements given in a case of alleged child sexual abuse case. These procedures help the evaluator to explore and consider all of the available information and many possible explanations prior to, during and after the interview. SVA essentially incorporates three procedures: firstly, obtaining a free narrative by the child who alleges sexual abuse, without using anatomical dolls as communication aids. This interview is not therapeutic and should not be performed by the child’s therapist due to dual role conflicts (Committee on Ethical Guidelines for Forensic Psychologists, 1991; American Academy of Child and Adolescent Psychiatry, 1988). SVA provides guidelines regarding when to use cue questions, direct questions and probe questions. Secondly, is the application of Criteria Based Content Analysis (CBCA) (Raskin & Esplin, 1991) to the narrative provided by the child and recorded verbatim. CBCA is used to analyse the narrative statement for general characteristics, specific contents and motivation related contents. Thirdly, is the application of the Validity Checklist (Raskin & Esplin, 1991) to the entire body of data acquired through both legal and psychological means relevant to the case. The Validity Checklist consists of four categories of information to be analyzed: a) psychological characteristic of the child; b) interview characteristics of the child and the examiner; c) motivational factors relevant to the child and others involved in the allegations and d) investigative questions regarding the consistency and realism of the entire body of data. This procedure involves systematic consideration of all necessary available information thus preventing premature conclusion.

Boat and Everson (1986) have developed a comprehensive set of guidelines on interviewing children who allege sex abuse, using Anatomically Detailed (AD) dolls. This procedure involves a structured interview, which begins by assessing cognitive competencies, and then the AD dolls are used to help children with immature verbal inability to communicate what may have happened to them. The American Psychological Association’s Council of Representatives (Koocher et al 1994) has recently published a position paper on the use of AD dolls, in which the use of AD dolls has been endorsed as a communication and memory aid for undergoing sexual abuse interview. However, it has not been identified as a definitive diagnostic test that can say with certainty whether a child has been sexually abused. Subsequently however, researchers (Faller, 2005) have argued whether in a case with possible sexual abuse communication should be limited to only verbal communication or also to allow the child to communicate through demonstrations. There are guidelines present about when and how to use demonstrative communication methods (Faller, 2005).

Hindman (1987) has published two books titled “Step By Step: Sixteen Steps Toward Legally Sound Sexual Abuse Investigations” and “A Very Touching Book”. These books give guidelines for interviewing children who allege child sexual abuse. The latter describes the concept of “good touch, bad touch and secret touch” and if it is present in the child then the child is encouraged to describing it. Although, no specific guidelines are given regarding the use of AD dolls however, the author states that these can be used to augment the interview.

Gardner’s (1992; 1995) investigative method emphasizes the importance of evaluating not only the victim but also the alleged perpetrator, and the accuser. The evaluation may also include conjoint interviewing wherein all three together are brought to the same room for interviewing. In his 1st book (1992) he gave 30 “differentiating criteria” to assess the likelihood of sexual abuse in a particular child. In his second book (1995), he gave an additional 21 criteria derived from direct enquiry and 11 criteria derived from projective testing. Separate criteria are also mentioned for evaluation of the victim’s parents, the accused male/female, and the accuser. However, the author states that there are no cuff-off points that indicate the likelihood of sexual abuse having taken place or not. The greater the number of indicators met the greater is the likelihood that a child has been abused.
Greenberg’s technique (1990) involves unbiased investigations of alleged child sexual abuse victims. In his interview format, certain toys that are used as stimuli for verbalizations and behavior are allowed. In this interview format, before judging the victim’s speech content, evaluation of the child’s linguistic competency should also be assessed. The integral part of the interview includes counterbalanced questions about alleged victimization and the alleged perpetrator apart from questions regarding the sequelae of alleged abuse.

There are however, several criticisms of each of these theories.

“Statement Validity Analysis” has inadequate empirical support and may lack ability to consider individual and age-related differences in linguistic abilities from validity-related differences (Wells and Loftus 1991). Uses of AD dolls have been criticized as well (Faller, 2005). Gardner (1992) opposes the use of dolls because as per him it is a cause of “psychological grief” to children. Moreover, some researchers (Faller, 2005) believe that AD dolls are sexually suggestive. Although, additional research is needed on anatomical dolls, the selective use of anatomical dolls, as communication aids, when interviewing children who may be reluctant or unable to describe sexual abuse is warranted. In contrast to most other methods, Gardner’s method emphasizes interviewing the alleged perpetrator whenever possible, and often jointly with the alleged victim, before giving a final opinion as to whether sexual abuse of a child has occurred. Several researchers have stressed on the need for a competent investigative procedure and interview technique so that the competence of the children and the accuracy of the information given can be assessed properly (Bruck & Ceci 1993; 1995; Lamb et al 1995). Memory itself cannot be judged to be accurate of inaccurate unless the investigator’s interviewing style and techniques are sound. There are studies on both the accuracy (Terr 1994) as well as the fallibility of children’s memory (Loftus & Ketcham 1994).

Areas of consensus amongst investigative formats

In spite of the many criticisms of each method described above there are several issues on which the researchers agree. These are as follows.

1. The investigator must carefully examine his/her own emotions and possible biases regarding child sexual abuse before undertaking to interview children with alleged sex abuse. This could jeopardize the assessment as the investigator may easily project those biases into the assessment of child’s allegations.

2. A well-trained and experienced forensic interviewer and not the child’s therapist should conduct the investigation. This will yield more informative and accurate accounts by children.

3. Free narrative from the child in response to open-ended questions should be encouraged as it gives the maximum accuracy. Higher the level of suggestiveness and coerciveness of an interview technique greater are the inaccuracies.

4. The interviewer should use a structured interview technique he/she is familiar with. Any unstructured interview should be avoided as it could sabotage the accuracy of the information and the competence of the child in giving sexual abuse history.

5. The interviewer and child’s behavioral responses should be recorded, preferably by videotape or at least by an audiotape and this should be accompanied with detailed notes. Note-taking alone should be reserved only for special cases.

6. Interviewer must be equipped with special skills while assessing pre-school children as they are prone to suggestiveness, developmental difficulties in differentiating from fantasy and real life events. Some concessions may be given to such children as the child may get confused. The developmental perspective therefore should be kept in mind.

7. Some measure of a child’s ability to distinguish between truth and falsehood must be taken. Child’s ability to identify colors correctly does not mean that the child can reliably distinguish between truth and falsehood in all applications.
8. Some children’s statements will be false and must be distinguished from true statements by the application of structured instruments and not by “gut feelings” or “hunches”.
9. Sexualized behaviors are more common in sexually abused children than in non-abused children.
10. Tools and props such as anatomically detailed dolls, puppets, or human figure drawings may be useful when interviewing children under age of 5 years or those older children who are non-communicative.
11. Although medical examination commonly do not show evidence of sexual abuse, they should be conducted and findings should be documented in every case as soon as possible after the allegation, by a highly trained specialist using multiple techniques and sophisticated equipments.

There are guidelines proposed for determining the likelihood of Child Sexual Abuse (U.S. Department of Health and Human Services, 1993; DeVoe & Faller 2002). Firstly, an assessment needs to be made regarding the child’s ability to describe the sexual behavior. Issues than need to be addressed are whether the child has sexual knowledge beyond what would be expected for the child’s developmental stage, description of the sexual behavior from the child’s view point and explicit accounts of the sexual acts. Secondly, issues regarding child’s ability to describe the context of the sexual abuse. Ability of the child to describe the place/time of event, coaxing that was done to obtain the child’s involvement, where the other family members were, what the child was wearing, whether clothing of the victim and/or perpetrator was removed or not, whether the consequences of disclosing or not disclosing told to the child by the perpetrator, whether the child disclosed it to anyone and what was the reaction of the person to whom the child confided. Thirdly, the child’s affect when recounting the sexual abuse should also be taken into account. The child’s reluctance, embarrassment, anger, anxiety, disgust, sexual arousal, fear etc should be assessed by the mental health professional dealing with a case of child sexual abuse. Lastly other important evidences like the medical, physical examination reports, confession of the alleged offender, other witnesses etc are important in helping a mental health professional in reaching a conclusion of whether CSA has occurred or not.

V. INSTRUMENTS AND SCALES FOR BEHAVIORAL ASSESSMENT OF CSA

Sexualized behavior in child is recognized as one of the signs of child sexual abuse. The Child Sexual Behavior Inventory (Version 2) (Friedrich et al 1992) is one such scale, which assesses the sexualized behavior seen recently or in the last 6 months. It is a 36-item questionnaire that is scored from 0 (Never seen) to 3 (At least once per week). This questionnaire enquires about a variety of sexualized behavior like talking about wanting to be the opposite sex, touching private parts when in public places, draws sex parts when drawing pictures of people, touches or tries to touch mother’s or other women’s breasts, imitates the act of sexual intercourse, using words that describe sex acts, making sexual sounds, rubbing body with furniture or people, overtly friendly or hugs with men/children they don’t know well, imitates sexual behavior with dolls or stuffed animal, increased interest in opposite sex, overtly aggressive in case of a girl child or suddenly remaining passive in case of a boy etc. The U.S. Department of Health and Human Services has published risk assessment protocol questionnaires that assess the children at risk for Child Sexual Abuse (Faller et al 1993). The questionnaire assesses significant areas e.g. the type of sexual abuse, characteristics of the abuse situation, victim’s age, suspect-victim relationship, number of victims, number of perpetrators, functioning of the non-offending parent, response of the suspect (admits but with or without taking responsibility, denies, denies but blames victim), family problems (substance abuse, violence, mental retardation or mental illness, physically handicapped) etc.

During interview of a child alleged to have been sexually abused one can ask to start with general questions. Thereafter one can shift to more focused questions, multiple choice questions, Yes-No questions and lastly leading questions (Faller et al 1993). General questions like “Do you know why you came to see me today?” can be asked. However, it has been seen that children usually are not very responsive to general questions. Then one can ask focused questions about the person the child names in
the general question like “How do you get along with this person? Or What happens when he/she babysits? Or what does he use to play with your hole?” The child can be given several choices in the question to describe an object that was used to play with his ‘hole’. Other multiple-choice questions can be “Did he/she say anything about telling or not telling? Or did you have your clothes off or on or some off and some on?” Another alternative could be asking Yes-No questions like “Did he/she tell you not to tell? Or did you have your clothes off?” Finally, one can ask leading questions like did he stick his “Weiner” or “Finder” or “Quot” in your hole? The leading questions like the one above should not be asked when interviewing children as they may answer in affirmative due to suggestibility.

The Trauma Symptom Checklist for Young Children (TSCYC) is a 90-item caretaker-report measure of children’s trauma and abuse-related symptomatology. It contains two reporter validity scales and eight clinical scales (Post-traumatic Stress-Intrusion, Post-traumatic Stress-Avoidance, Post-traumatic Stress-Arousal, Post-traumatic Stress-Total, Sexual Concerns, Dissociation, Anxiety, Depression, and Anger/Aggression) as well as an item assessing hours per week of caretaker contact with the child. In a multisite study using TSCYC, it was found that the scale had good reliability & validity in sexually abused children. The PTS subscales were the most predictive, followed by Sexual Concern scale (Briere et al 2001).

Since eliciting history of CSA can make both the physicians as well as the victim uncomfortable so a step-wise interview (Yuillie et al 1993) is usually used. It includes rapport building → asking open – ended questions → telling the truth → introducing the topic of concern → free narration after topic has been introduced → general questions → lastly specific questions. Secondly, associated psychological aids like drawings (Burgess & Hartman, 1993), anatomical dolls, projective tests (Rorschach, Child Apperception Test) have been found useful (Leifer et al, 1991). Behavioral checklists (Freidrich et al, 1991, Chantler et al, 1993) have also been used. Mental State Examination is an integral part of the whole process of reaching to a diagnosis. Establishing a good rapport, keeping the interviews to a minimum and use of open-ended questions are important aspects of MSE. In addition play observation may be useful mode of examination.

IMPORTANCE OF BEHAVIORAL/PSYCHOLOGICAL ASSESSMENT OF CHILD SEXUAL ABUSE

Apart from behavioral assessment of sexually abused children, it is necessary to make psychological evaluation in child protection issues. The specific purpose of the evaluation is determined by the nature of child protection matter. The primary aim is to determine whether the child’s health and welfare may have been harmed. When it has been established that the child is at risk for harm, the evaluation focuses on rehabilitation designed to protect the child and help the family. An additional purpose may be to make recommendations to promote the psychological and physical well-being of the child, and if appropriate, facilitate reunification with family. In proceedings on the termination of parenting rights, the primary purpose is to assess not only abuse or neglect by parent(s), but also whether rehabilitation efforts have succeeded in providing a safe environment for the child’s return. In cases of CSA, child’s protection and interests are of paramount importance. Apart from this the successful rehabilitation of parents should be an additional focus especially when involuntary termination of parental rights is being considered.

The role of mental health professional (e.g. psychiatrists and psychologists) in conducting evaluations is that of professional expert who strives to maintain an unbiased objective stance. Mental health professional should understand that there are serious consequences of findings of psychological assessment in child protection matters as in the final dispositional hearing, these findings may be a factor in the decision to terminate parental rights. Mental health professionals conducting psychological assessments in CSA should know that competence in performing psychological assessments of children
and their families is necessary but not sufficient. Education, training, experience in areas of forensic practice, child and family development, child and family psychopathology, the impact of separation on the child, the nature of various types of child abuse and the importance of person to person differences are some of the additional areas that a mental health professional should be well versed with while dealing with CSA (U.S. Advisory Board on Child Abuse and Neglect 1995). Mental health professionals engaging in psychological assessments of CSA should be aware of personal biases regarding age, sex, gender, race, ethnicity, national origin, religion, sexual orientation, disability, language, culture and socio-economic status as it may interfere with an objective evaluation. Mental health professionals should make an effort to overcome these biases and if they cannot then they should withdraw from the evaluation. Awareness regarding diverse cultural and community methods of child rearing is of importance and these should not be overlooked while giving recommendations.

The scope of psychological evaluation may be limited to the question being asked by the referral agency, non-abusing parents who have brought a child or court. Sometimes it could be whether abuse has taken place or not, sometimes it can be about the rehabilitation of the child and the parents and at other times it could be the critical evaluation of assumptions and methodology adopted by another mental health professional in a case of child sexual abuse. Due to the nature of child protection matters, the complexity of the legal issues involved and the potential serious consequences of the evaluation, mental health professionals should be aware of the importance of issues like informed consent. Efforts toward obtaining informed consent should include a clear mention to the participants regarding the nature of the evaluation, the purpose, to whom the results of the psychological evaluation would be provided and the role of the mental health professional in relation to the referring party. It should be also made clear whether the child understands the nature of the tests and the evaluation process. It should be made clear to the child by professionals handling such cases that the child’s interest is the primary interest and because of that interest the information will be shared by others. Mental health professionals conducting a psychological assessment in CSA case should ensure that the participants and the abused child are aware of the limits of confidentiality for the evaluation results. The evaluation results could be sought by a child or a child protection investigation agency, the court, a guardian of the child, or the attorney of either parent involved in the abuse. When an evaluation is court ordered then it is advisable that one should seek to reconcile the APA ethical committee standards with fulfilling demands of the court.

Mental health professionals must strive to use the most appropriate methods available to address the questions regarding the case at hand. Multiple data gathering techniques may be used e.g. clinical interviews, observations and/or psychological testing. One may also review relevant reports like child protection agencies, childcare providers, law enforcement agencies, schools and institutions. An evaluation of the parenting capacity should be done which must include observation of the child-parent interaction in natural settings. This however, may not always be possible in cases where parental contact is prohibited by the court. It may also be necessary to evaluate other individuals like the caretakers, grandparents, and teachers.

Mental health professionals should refrain from drawing conclusions, which are not supported by data. It should be acknowledged in front of the court regarding the limitations in the methodology or data used. On the other hand, the participating child may be defensive due to the serious consequences of an adverse finding. A psychological evaluation in CSA should be supplemented by an opinion on the psychological functioning of an individual after conducting appropriate tests for the same. Finally, recommendations of the mental health professionals are based on whether the child’s health and welfare have been and/or may be seriously harmed.

CONCLUSION
Behavioral/Psychological assessment of CSA is one of the most difficult tasks a mental health professional can face in clinical practice. High degree of physical and psychological consequences results from the complex interplay of individual, family related and social factors. Assessment of validity of alleged CSA is a tedious task with legal and social issues complicating the matter. Interviewer must be equipped with special expertise in assessment of these cases and should follow the general consensus arrived at by several researchers. Children’s ability to recall information and or be prompted should be researched thoroughly in the future. There is also need for further research on the normal sexual behavior in children. Individualized treatment and establishment of a sound therapist-patient relationship still remains the corner stone for the treatment of CSA. Various professionals from the medical, social and psychological fields have not approached, understood and learnt to properly handle the issue in a holistic manner. Needless to say, sexual abuse in children (i.e.) is an area where questions definitely outnumber the answers.

References


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Summary of Mode Deactivation Therapy, Cognitive Behavior Therapy and Social Skills Training with Two Year Post Treatment Results

Jack A. Apsche, Christopher K. Bass & Alexander M. Siv

Abstract

This study summarized two treatment research studies and included recidivism data for two years post discharge for group therapy. The study compared Mode deactivation Therapy (MDT), Cognitive Behavior Therapy (CBT), and Social Skills training (SST), results of the MDT series of studies and the two year post-study recidivism data. The data from the studies of Apsche and his colleagues (Apsche, Bass, Siv 2005; Apsche, Bass, Jennings, Murphy, Hunter, and Siv, 2005), were used to demonstrate the overall efficiency in treatment of MDT. The follow-up data suggests the MDT has positive generalization effects post-treatment.

Keywords: Recidivism CBT, MDT, SST, Conduct Disorder, Aggression

Introduction

This research summarized the collected studies of outcome of Apsche and his colleagues. It includes recidivism data for two years since treatment was terminated and the adolescents were discharged. Recidivism data was collected by written surveys sent to parents, guardians and case worker’s of the residents. Phone calls were initiated as reminders to case managers and their supervisors to assure confidence. The summary of the data suggests that in three groups of equal size in a total population of 60 male adolescents, MDT was far superior to CBT and SST in reducing aggression, sexual aggression, and psychological distress as measured by the CBCL and DSMD.

Further analysis suggests that MDT is superior in reducing recidivism over CBT and SST. Because of MDT’s superior results, it is hypothesized that the effects of MDT are superior in generalization to the home environments of the adolescents.

Table 1 Demographic data of population by treatment condition, diagnosed disorder and race.

<table>
<thead>
<tr>
<th>Axis I</th>
<th>CBT</th>
<th>MDT</th>
<th>SST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Disorder</td>
<td>14</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Oppositional Defiant Disorder</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Post Traumatic Stress Disorder</td>
<td>7</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Major Depression</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td><strong>Axis II</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Personality Disorder</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Borderline Personality Traits</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Narcissistic Personality Traits</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Dependent Personality Traits</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Avoidant Personality Traits</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>14</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>European American</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Hispanic/Latino American</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>19</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td><strong>Average Age</strong></td>
<td>16.5</td>
<td>16.5</td>
<td>16.1</td>
</tr>
</tbody>
</table>

**MEASURES**

The measures define how we collected data and checked for reliability in a treatment center. It is important to clarify that treatment research requires that all adolescents receive adequate treatment. There is no total control group, or no treatment, wait list group.

A review of the key measures of physical and sexual aggression used in this study consisted of Daily Behavior Reports and Behavior Incident Reports. The Daily Behavior Reports were completed by all levels of staff, both professional and paraprofessional, across all settings of the residential treatment program (e.g., schoolroom, psycho educational classes, treatment activities, residential dormitories, etc.). The Behavior Incident Reports were only completed by staff following the occurrence of serious or critical incidents, namely, acts of physical and sexual aggression. Inter-rater reliability in the use of the measures was determined by independently totaling the number of physical and sexual aggression incidents on both the Daily Behavior Report cards and the Behavior Incident Report forms and calculating the percentage of agreement. The agreement for this study was at the 98% level, as reported by Apsche, et. al. (2005).
The baseline (“pre-treatment”) measure of physical and sexual aggression consisted of the average number of incidents per week that occurred during the first 60 days following admission and the post-treatment measure was the rate of occurrence during the 60 day period prior to discharge.

Two assessments were used to measure the behavior of the residents, which included the Child Behavior Checklist (CBCL; Achenbach, 1991) and the Devereux Scales of Mental Disorders (DSMD; The Devereux Foundation, 1994).

The CBCL is a multi-axial assessment designed to obtain reports regarding the behaviors and competencies of 11 to 18 year olds. The means and standards are divided into three categories: internalizing (which measures withdrawn behaviors, somatic complaints, anxiety and depression), externalizing (which measures delinquent behavior and aggressive behavior), and total problems (which represent the conglomerate of total problems and symptoms, both internal and external).

The DSMD illustrates level of functioning in comparison to a normal group, via behavioral ratings. T scores have a mean of deviation of 10; a score of 60 or higher indicates an area of clinical concern.

**Table 2** Descriptive Statistics of participants by group; pre and post treatment condition.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Rx Type</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
<th>95% confidence Interval</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline Physical Aggression</td>
<td>CBT</td>
<td>19</td>
<td>1.53</td>
<td>.513</td>
<td>.118</td>
<td>1.28</td>
<td>1.77</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MDT</td>
<td>20</td>
<td>1.55</td>
<td>.510</td>
<td>.114</td>
<td>1.31</td>
<td>1.79</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SST</td>
<td>20</td>
<td>1.60</td>
<td>.503</td>
<td>.112</td>
<td>1.36</td>
<td>1.84</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>59</td>
<td>1.56</td>
<td>.501</td>
<td>.065</td>
<td>1.43</td>
<td>1.69</td>
<td>1</td>
</tr>
<tr>
<td>Baseline Sexual Aggression</td>
<td>CBT</td>
<td>19</td>
<td>1.68</td>
<td>.478</td>
<td>.110</td>
<td>1.45</td>
<td>1.91</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MDT</td>
<td>20</td>
<td>1.65</td>
<td>.489</td>
<td>.109</td>
<td>1.42</td>
<td>1.88</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SST</td>
<td>20</td>
<td>1.70</td>
<td>.470</td>
<td>.105</td>
<td>1.48</td>
<td>1.92</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>59</td>
<td>1.67</td>
<td>.471</td>
<td>.061</td>
<td>1.56</td>
<td>1.80</td>
<td>1</td>
</tr>
</tbody>
</table>
Thus, the first analysis suggests that all types of treatment – Mode Deactivation Therapy and Cognitive Behavioral Therapy – had a positive effect of reducing rates of physical and sexual aggression over the course of treatment (see Table 3).

Thus, the first analysis suggests that all types of treatment – Mode Deactivation Therapy and Cognitive Behavioral Therapy – had a positive effect of reducing rates of physical and sexual aggression over the course of treatment (see Table 3).

<table>
<thead>
<tr>
<th>Post-Treatment</th>
<th>CBT</th>
<th>19</th>
<th>.42</th>
<th>.507</th>
<th>.116</th>
<th>.18</th>
<th>.67</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>MDT</td>
<td>20</td>
<td>.30</td>
<td>.470</td>
<td>.105</td>
<td>.08</td>
<td>.52</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Aggression</td>
<td>SST</td>
<td>20</td>
<td>.50</td>
<td>.513</td>
<td>.115</td>
<td>.26</td>
<td>.74</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59</td>
<td>.41</td>
<td>.495</td>
<td>.065</td>
<td>.28</td>
<td>.54</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Post-Treatment</th>
<th>CBT</th>
<th>19</th>
<th>.47</th>
<th>.513</th>
<th>.118</th>
<th>.23</th>
<th>.72</th>
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<tbody>
<tr>
<td>Sexual</td>
<td>MDT</td>
<td>20</td>
<td>.25</td>
<td>.444</td>
<td>.099</td>
<td>.04</td>
<td>.46</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Aggression</td>
<td>SST</td>
<td>20</td>
<td>.50</td>
<td>.513</td>
<td>.065</td>
<td>.28</td>
<td>.74</td>
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<td>1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>59</td>
<td>.41</td>
<td>.495</td>
<td>.065</td>
<td>.28</td>
<td>.54</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Figure 1, Next Page**
The second analysis looked at significant differences in treatment effectiveness between the two treatment conditions. It was hypothesized that adolescent male aggressive sexual offenders would show greater improvements in terms of aggressive and sexual acting out behavior when treated with MDT as compared to CBT. To test this hypothesis, a one way analysis of variance (ANOVA) was conducted on the baseline and post-treatment measures of physical and sexual aggression. Both post-treatment physical aggression and post-treatment sexual aggression were significantly affected by type of treatment, $F(2, 56) = 8.32, p < .01$ (post-treatment aggression); $F(2, 56) = 10.02, p < .01$ (post-treatment sexual aggression).

Figure 1: Comparison of Baseline and Post-treatment measures for Physical Aggression and Sexual Aggression for treatment groups; MDT = Mode Deactivation Therapy; CBT = Cognitive Behavioral Therapy; SST = Social Skills Training.

Table 3, Next Page
Table 3 ANOVA -- Difference in Outcomes between MDT and CBT and SST

<table>
<thead>
<tr>
<th>Measure</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline Physical Aggression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.707</td>
<td>2</td>
<td>.353</td>
<td>1.413</td>
<td>.252</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14.005</td>
<td>56</td>
<td>.250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.712</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Treatment Physical Aggression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>3.299</td>
<td>2</td>
<td>1.649</td>
<td>8.316</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>11.108</td>
<td>56</td>
<td>.198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.407</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baseline Sexual Aggression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>.537</td>
<td>2</td>
<td>.269</td>
<td>1.074</td>
<td>.349</td>
</tr>
<tr>
<td>Within Groups</td>
<td>14.005</td>
<td>56</td>
<td>.250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14.542</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Post-Treatment Sexual Aggression</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>3.483</td>
<td>2</td>
<td>1.742</td>
<td>10.017</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9.737</td>
<td>56</td>
<td>.174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13.220</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To better elucidate between-group differences in magnitude of effect, independent factorial analyses on treatment model and variable were conducted. With an overall percent reduction of 80.7% in rates of post-treatment physical aggression, Mode Deactivation Therapy was found to be superior to Cognitive Behavioral Therapy at 72.6% and Social Skills Training at 68.8%. The greater magnitude of effect for MDT was statistically significant compared to CBT and SST, which were not significantly different from each other. The most dramatic difference between treatment groups was found in reduction of post-treatment rates of sexual aggression. In this instance, only Mode Deactivation Therapy showed a statistically significant reduction in rates of sexual aggression from baseline to post-treatment. MDT showed a reduction of 84.5% in sexual aggression compared to CBT and SST at 72.0% and 70.6% respectively. Post-treatment rates of sexual aggression were .30 for MDT and .42 for CBT, and .43 for SST. The differences
were significant using an independent $T$-test comparing, CBT and MDT. The $T$ test showed $T = 2.21$, $df = 39$, $p = .01$. The results clearly show that MDT produced significantly superior results when compared to CBT and SST. These differences in magnitude of effect are graphically represented in Figure 2.

Table 4 Post-Treatment Scores and Percent Reduction in Types of Aggression Across Treatments.

<table>
<thead>
<tr>
<th></th>
<th>MDT</th>
<th>CBT</th>
<th>SST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Treatment Score</td>
<td>Percent reduction</td>
<td>Percent reduction</td>
<td>Percent reduction</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>.30</td>
<td>80.7%</td>
<td>.42</td>
</tr>
<tr>
<td>Sexual Aggression</td>
<td>.25</td>
<td>84.5%</td>
<td>.47</td>
</tr>
</tbody>
</table>

Figure 2: Post-Treatment Reduction in Rates of Aggression Across Three Treatment Conditions. MDT= Mode Deactivation Therapy; CBT = Cognitive Behavioral Therapy; SST= Social Skills Training.
The CBCL is a multi-axial assessment designed to obtain reports regarding the behaviors and competencies of 11 to 18 year olds. The means and standards are divided into three categories: internalizing (which measures withdrawn behaviors, somatic complaints, anxiety and depression), externalizing (which measures delinquent behavior and aggressive behavior), and total problems (which represent the conglomerate of total problems and symptoms, both internal and external). The DSMD uses T scores with a mean of 50 and a standard deviation of 10; any T score over 60 is considered clinically significant. The means and standards are divided into four scales and analyzed: (1) Internalizing (which measures negative internal mood, cognition, and attitude), (2) Externalizing (which measures prevalence of negative overt behavior or symptoms), (3) Critical Pathology (which represents the severe and disturbed behavior in children and adolescents), and Total (which represent the conglomerate of all scores including general Axis I pathology, delusions, psychotic symptoms, and hallucinations).

Table 5  T- scores, ranges, and standard deviations in all measures for both groups

<table>
<thead>
<tr>
<th>Measure</th>
<th>Scale</th>
<th>CBT</th>
<th>MDT</th>
<th>SST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Behavior Checklist (CBCL)</td>
<td>Pre-Treatment</td>
<td>Internal 71.43 (Range = 66 - 84)</td>
<td>72.57 (Range = 68 - 86)</td>
<td>72.45 (Range= 66-84)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>External 73.74 (Range = 66 - 86)</td>
<td>72.94 (Range = 64 - 86)</td>
<td>71.95 (Range= 68-88)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>72.67</td>
<td>72.74</td>
</tr>
<tr>
<td>Child Behavior Checklist (CBCL)</td>
<td>Post-Treatment</td>
<td>Internal 63.66 (Range = 55 - 80) SD = 10.04</td>
<td>51.75 (Range = 39 - 71) SD = 12.10</td>
<td>66.33 (Range= 58-86) SD = 8.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External 65.63 (Range = 52 - 82) SD = 10.76</td>
<td>50.04 (Range = 37 - 69) SD =11.74</td>
<td>69.63 (Range = 66-88) SD = 8.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>64 (Range = 52 – 84) SD = 9.24</td>
<td>51.00 (Range = 40 – 61) SD =10.28</td>
</tr>
<tr>
<td>DSMD</td>
<td>Internal</td>
<td>70.5 (Range = 62-84)</td>
<td>71.3 (Range = 64-83)</td>
<td>72.10 (Range = 62-84)</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>73.1 (Range = 64-86)</td>
<td>72.5 (Range = 67-84)</td>
<td>71.25 (Range = 60-86)</td>
</tr>
<tr>
<td></td>
<td>Critical Path</td>
<td>68.7 (Range = 58-88)</td>
<td>70.5 (Range = 60-86)</td>
<td>72.33 (Range = 68-86)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>70.77</td>
<td>71.50</td>
<td>71.79 (Range = 62-84)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSMD</th>
<th>Internal</th>
<th>61.70 (Range = 52-74)</th>
<th>49.70 (Range = 46-56)</th>
<th>65.66 (Range = 58-82)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>External</td>
<td>57.81 (Range = 52-72)</td>
<td>45.88 (Range = 41-54)</td>
<td>56.86 (Range = 52-84)</td>
</tr>
<tr>
<td></td>
<td>Critical Path</td>
<td>50.21 (Range = 46-66)</td>
<td>46.15 (Range = 42-56)</td>
<td>69.75 (Range = 58-88)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>58.00 (Range = 56-82)</td>
<td>46.15 (Range = 40-56)</td>
<td>65.92 (Range = 58-86)</td>
</tr>
</tbody>
</table>

Mean scores on all scales are at least one standard deviation less.

At the time both CBCL and DSMD assessments, the three groups differed significantly. Residents who participated in MDT had lower scores on all measures than did residents who engaged in CBT. The results indicate that the mean scores on the internalizing factor, externalizing factor, critical pathology, and total score for the MDT group is at or near one standard deviation below the CBT group.
Figure 3: Child Behavioral Checklist Mean Scores Baseline Measures Across All Groups.

Figure 4: Child Behavioral Checklist Mean Scores for Post-Treatment Measures Across All Groups.
Figure 5: DSMD Baseline Means Scores Across Treatment Groups.
RESULTS

Analysis of Follow-up or recidivism data

Recidivism was recorded for a two-year period following the discharge from the facility where the sixty residents were treated. The following are the results of the recidivism surveys:

The MDT Group had a recidivism rate of 7%. There were no serious offences, such as sexual assaults, or physical assaults. There were cases of Marijuana use, school suspensions, etc, but no target behaviors of the treatment group were founded.

The CBT group had a recidivism rate of 20% over the two-year period. This means 20% of the group engaged in chargeable offenses including sexual aggression, physical aggression, auto theft, and selling controlled substances.

The SST group had a recidivism rate of 49.5%: That means that almost one half of the group engaged in chargeable offences. The offenses included: attempted murder, aggravated assault, rape, auto theft, selling controlled substances, school explosions, and suspension, and running away from their place of residence.

It is important to note that MDT demonstrated superior results. Overall compliance was greater than 95% across all three groups, MDT, CBT, and SST.
Individually, compliance with the recidivism surveys showed the differences across the group both in treatment results and in follow-up or recidivism data. The three groups were at the 95% compliance level.

For this study the form asked basic questions:

1) Did the adolescent get arrested? If so what were the charges?
2) Did the adolescent get suspended from school? If so, what was the offensive behavior?
3) Has the adolescent been removed from their residence? If so, for what behavior?

**DISCUSSION**

The results of the series of studies on MDT suggest that it might be an efficacious treatment for adolescents with problems with conduct and personality disorders, and with aggressive and other aberrant behaviors.

The follow-up data also suggests that MDT might be effective, not only during treatment, but it might generalize to the home environment. The outcomes suggest that MDT might also be effective as an out patient treatment prior to residential in-patient treatment.

As in any “real world” treatment study this study is limited by the nature of real clinical practice. Although, if MDT has shown such superior results in “real world” clinical settings it is more important to the author for work such as MDT to be effective in clinical studies than carefully controlled University studies, because many treatment methodologies produced in carefully controlled studies are not replicable in “real world” clinical settings.

*Apsche, Bass, Siv (2005)*

First, the adolescents in this study were all from Urban Centers of the Northeastern United States. Most had a history of legal issues and charges. Many of these adolescents were extremely aggressive and most likely would not be participants in federally funded grant based research studies. These individuals in the MDT studies would most likely be “dropouts” from such studies because of non-compliance or aggression. In other words, these adolescents are troubled, aggressive, suspicious, largely under served, and not often represented in University based research.

MDT is a methodology developed by Apsche over time to address the lack of effective treatments in real clinical settings. It is hoped by all the authors, that other clinicians and researchers who face the difficult task of treating the “untreatable” will further test the efficiency of MDT.

The first author invites any of my colleagues to my Camden, New Jersey office to demonstrate how to implement any protocols of their “controlled” treatment studies with a population of severe conduct disorder youth, many of whom have no identifiable families. We would be appreciative of such colleague support to help this difficult population.
REFERENCES


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Parent Training for Families of Children with Comorbid ADHD and ODD

Jeffrey S. Danforth, Ph.D.

Abstract

Paper presents the details of a parent training program for families of children with comorbid ADHD/ODD. The goal of the training is to develop specific parenting skills that promote pro-social compliance and decrease disruptive child behavior. There are two parts to the parent training program. First, a theoretical framework of interactions between parents and their hyperactive children is presented. Second, a task analysis of the skills learned by parents is presented in the form of The Behavior Management Flow Chart. This flow chart synthesizes the research on child management into a visual unit that allows a clear portrayal of child behavior management steps.

Keywords: parent training, hyperactivity, defiance, Behavior Management Flow Chart

Children with Attention-deficit Hyperactivity Disorder (ADHD) demonstrate developmentally inappropriate degrees of overactivity, impulsiveness, and inattention (American Psychiatric Association, 1987). Approximately 55% of children with ADHD also have behavior characteristic of Oppositional Defiant Disorder (ODD; Barkley, 2006). This is important because children with co-occurring ADHD/ODD behavior have a distinctive pattern of dysfunction dissimilar to ADHD alone and ODD alone children. The etiology of familial transmission is different with an overall outcome that is generally worse than seen in children just with ADHD or ODD alone (Barkley; Hinshaw, 1994; Lynam, 1996). For such children, there is a trend toward combined psychostimulant/behavior therapy treatments.

Nonetheless, the controversy surrounding the overuse of psychostimulant medication (LeFever, Arcona, & Antonuccio, 2003), as well as the potential for negative side effects to medication, the failure of research to demonstrate enduring change after the cessation of medication, and the fact that 20-30% of children with ADHD do not have a positive response to stimulant medication (Connor, 2006) demonstrates the need for improved parent training programs. The effects of a typical regimen of stimulant medication wear off by evening (Garland, 1998), so even parents whose children are on an effective dose of medication may benefit from parent training. However, it has not been demonstrated that parent training programs for families of children with ADHD and ODD are a sufficient to modify parent and child behavior (see Graziano & Diament, 1992, Pelham & Hinshaw, 1992, for reviews).

Previous Outcome Research

In response to limited improvements in such child noncompliance, Danforth (1998a) designed a child behavior management system called the Behavior Management Flow Chart (BMFC). The primary target behavior of the BMFC is noncompliance along with aggression and disruption. The effects of parent training, using parameters established in the Behavior Management Flow Chart, on parent behavior and on the disruptive behavior of children, were evaluated in four outcome studies (Danforth, 1998b; 1999; 2001; Danforth, Harvey, Ulaszek, & McKee, in press). Children’s ages ranged from 4-12 and each child met the DSM IV criteria for ODD and ADHD (American Psychiatric Association, 1987). Each child also met diagnostic research criteria for ADHD (Barkley, 1988) with average intelligence scores. T-scores on standardized rating scales assessing ADHD and oppositional defiant/aggressive behavior were typically more than two standard deviations above the mean. Almost every baseline direct observation session revealed clinically significant noncompliance, below 60% (Forehand, 1977). Thus, child problem behavior measured at pre-screening and baseline was strong. Outcome measures included standardized child behavior and parent self-report rating scales, home telephone interviews, direct observations of mother/child interaction, and home-based audio recordings. Parent training sessions were conducted with individual families or in a group format with ten families per group. Overall results reveal that parent training improved parent behavior management skills and parent relationship behavior and reduced parent
stress. There were also decreases in the pervasiveness and severity of child oppositional child behavior, aggression, disruption, and in some cases hyperactivity.

Analysis of clinical significance data suggested that parent training brought child and parent behavior within the nonclinical range of functioning. The results from the direct observation are comparable to other parent training research that used ADHD/ODD children with direct observation documenting parenting and child behavior (Pisterman et al. 1989; 1992). Data suggest that parent behavior changed forthwith, but significant improvement in child behavior did not emerge until 5-8 weeks after parent training was initiated. Clinical significance data for the children suggest demanding behavior even after parent training. Sometimes ADHD behavior was prevalent during the course of treatment. This may reflect ongoing hyperactivity ever-present across household, school, and community settings. The intervention did not target ADHD behavior. The etiology of ADHD has a considerable biological component and research has illustrated the persistence of ADHD characteristics over time (Barkley, 2006), so we expected that some children might still emit ADHD behavior at the conclusion of treatment. Sometimes oppositional behavior continued to present across a significant number of settings, but the intensity of such behavior was diminished. Some t-scores from standardized rating scales assessing disruptive behavior remained above 60 as did scores assessing child-based stress. Physical aggression was almost always decreased, but was not always eliminated. The impact of the parent training with the BMFC was evaluated in isolation of any other form of treatment, but in applied practice parent training is typically just one component of a treatment package tailored to individual families that might include other interventions such as academic remediation and social skills training.

Purpose

This paper presents the program details of parent training therapy for families of children with comorbid ADHD/ODD. Table 1 presents the topics and schedule for eight parent training sessions. Group parent training takes ten sessions and therapists can adjust the schedule at their discretion. The goal is to develop specific parenting skills that alter the interaction with a child, thus promoting pro-social compliance and decreasing disruptive child behavior. Parents will adapt to and cope with ADHD behavior while modifying defiance and aggressive disruptive behavior.

Table 1

<table>
<thead>
<tr>
<th>Hour Number</th>
<th>BMFC Step</th>
<th>Training Topic</th>
<th>Homework/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>na</td>
<td>Didactic instruction on social learning principles, ADHD, ODD, and coercion.</td>
<td>Read handout. on social learning principles, ODD, ADHD, and coercion.</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>Commands.</td>
<td>Read. Implement Step 1.</td>
</tr>
<tr>
<td>4</td>
<td>7-26</td>
<td>Warning for timeout. Timeout. Backup for timeout refusal.</td>
<td>Read. Select timeout location. Option to select 2 target behaviors, in</td>
</tr>
</tbody>
</table>
addition to noncompliance, for timeout. Create a menu of backup consequences for timeout refusal. Implement only Steps 1-6, not 1-26.

5  7-26  Same as Hour 4. Also, review timeout location, target behaviors, and backup consequences.

6  1-26  Review specific difficulties and rehearse all BMFC Steps.

7  same  Review specific difficulties and rehearse all BMFC Steps.

8  same  Didactic Instruction on social learning principles, ODD, ADHD, and coercion. Review specific difficulties and rehearse all BMFC Steps.

Note: BMFC Steps correspond to the steps in Figure 1. We present supplemental written materials to the parents to read during and after training sessions. These materials provide a detailed outline for two parts of parent training. Part 1 is a didactic presentation on ADHD and family interactions. Part 2 is a step-wise behavior management skills training program with the BMFC.

Part I. Interactions Between Adults and Defiant Hyperactive Children

During the first parent training session, a theoretical framework based upon an analysis of interactions between parents and their hyperactive children (Danforth, Barkley, & Stokes, 1991) is presented. Present this training before teaching the behavior management skills. Describe the behaviors associated with ADHD, give a very brief review of etiology, discuss relevant technical terms, and analyze why many children with ADHD also develop ODD. Parents will understand how the relationship between the characteristics of ADHD and ODD logically leads to the intervention steps presented in the BMFC. When teaching parenting skills in subsequent sessions, constantly refer back to this didactic material. ADHD.

First, present characteristics of ADHD. For each characteristic, present examples from the therapists’ own experiences. The conceptual basis for understanding the nature of ADHD was Barkley’s 1997 analysis (see also Barkley, 1994). ADHD children have delays or disabilities in three areas: impulse control, overactivity, and attention. The DSM (American Psychiatric Association, 1987) presents descriptions of such characteristics and what parents can expect. The distinctive feature of ADHD is impulsiveness, or a lack of behavioral inhibition. This may be conceptualized in a number of ways. There may be an inability to delay a response (e.g., there may be a short latency between antecedent events and
behavior) or sustain an inhibited response. Executive functions (e.g., rules) may have little control over behavior. For example, children may act as if they are not thinking about the consequences of their behavior. In addition, children with ADHD are excessively influenced by immediate rewards and escape opportunities. Overactive motor behavior seems linked in nature to the impulsive behavior and poor inhibition. Compared with other same-age children, children with hyperactive behavior have far higher rates of motor behavior, including vocal behavior (see Barkley, 2006, for a review). Motor behavior includes ankle movement, wrist activity, arm and leg movements, movement of the buttocks and lower torso (i.e., squirming), and locomotion. Vocal behavior includes humming, unusual noises, speech that often is unrelated to current tasks, with strong volume. The high rate behavior is resistant to extinction, and maintains in the context of aversive social consequences that usually have a punishing effect on the behavior of children. The behavior continues when children are alone, in the absence of external positive reinforcement or escape/avoidance conditions, and even during sleep. Hyperactive behavior is described as “generally unnecessary” and “often irrelevant to the task or situation… at times purposeless” (Barkley, p. 82). Hyperactive behavior does not result in observable consequences that alter the strength of the behavior. Because parents often attribute such behavior to the child’s efforts to annoy them (e.g., “he runs around crazy like that just to bother me”), emphasize that such behavior is likely functional because it seems to be automatically strengthened by internal sensory positive reinforcement (c.f., Martin & Pear, 2003; p. 272). Poor Attention can be manifested in two ways. Children may present with shorter sustained attention, particularly in the context of long, repetitive, passive, or rote tasks. Additionally, children with ADHD are readily distracted (controlled) by events and opportunities around them, particularly stimuli embedded within the task with which they are engaged (see Zentall, 2005). Therefore, instruction on speaking with the children focuses on concise structured vocalizations that are not potentially distracting.

The Development of Oppositional Defiant Disorder

Describe how many children with ADHD present with another separate childhood disorder called Oppositional Defiant Disorder (ODD). Describe ODD characteristics such as active defiance, angry tantrums, and arguments with adults. For many parents this is the first time the co-morbid issue is presented explicitly. Then discuss how ADHD, which is generally considered a biologically based neurological disorder, might develop to include ODD, the specific responses of which are often learned. Two models describe how faulty development in subtle but critical child skills could contribute to disturbed parent-child interactions that further exacerbate faulty development.
**Stepping stone model.** One explanation acknowledges that ADHD is causally related to ODD. Children with ADHD may not pay attention or listen to instructions. They may not follow directions for long duration, they may respond quickly and carelessly, or they may not finish an assigned task. Impulsive misbehavior includes rudeness and disobeying. Lynam (1996) termed this the stepping stone model.

**Coercion.** Another explanation about the development of ODD in children with ADHD is based on a review of direct observation research of interactions between parents and their hyperactive children (Danforth, Barkley, & Stokes, 1991). The essence of this review is that the chronic intensity of ADHD behavior can set the occasion for adults to give in earlier when their children protest. Coercion is more common when adults interact with ADHD children than with typical children. As such, define and explain coercion (Patterson, 1976; 1982; Patterson & Bank, 1986). It is important to acknowledge that evidence shows that a child’s hyperactive behavior may be aversive to adults in whose presence such behavior frequently occurs. For example, in the verbal interactions of parents, repeated commands, verbal reprimands, and correction are commonly directed at their children with hyperactive behavior. However, when children with hyperactive behavior are well behaved their parents give fewer rewards for compliance, initiate fewer verbal interactions, and attend less to appropriate behavior and vocalizations initiated by the child. Parent behavior may be, in part, an outcome of their child’s disruptive, intrusive repertoire (Danforth et al.), and parent non-responsiveness and over-reactivity may be even more pronounced in families of children with comorbid ADHD/ODD (Seipp & Johnston, 2005). The aversive properties of the hyperactive behavior may generalize to the child him/herself, as parents tend to avoid children with ADHD behavior when they behave well. The same parents are less likely to behave in such a manner with children who do not behave in a hyperactive way or when children with ADHD are prescribed medication that attenuates hyperactive behavior. Such parent-child interaction patterns are found in preschool ages, middle childhood ages, and into adolescence, and appear to be stable. Lynam (1996) termed this the risk factor model, and consistent with Danforth et al., recommended parent training to break the cycle of negatively reinforced parent-child interactions. Below find an example from the written training materials used to teach parents about the bi-directional functional relationships.

Example of a coercion analyses of child behavior that might grow to ODD:

-A = parent tells a child to put toy away.
-B = child whines noisily.
-C = parent does not make the child put the toy away.
-Future = child cries and whines more when told to put fun things away

At this juncture, many parents spontaneously announce that they recognize this pattern (with fingers pointed in the air, exclaiming, “That’s our house”). That parents identify how their own behavior contributes the development of ODD is helpful. The risk is that self-blame can be associated with emotional responses (e.g., guilt, sadness, crying) that interfere with subsequent learning. As empiricists, explain how coercion, with parent over-reaction followed by acquiescence may be more functional for adults reacting to children with ADHD than for adults reacting to typical children. Such a pattern is the typical way for adults to react to ADHD behavior, not the exception. The pattern occurs with teachers and parents. Parents should to attend to how the child influences the adult (Bell, 1968; Bell & Harper, 1977), how the adult influences the child, and the interaction between the two. Parents of children with ADHD do not have the same environment as parents of children without ADHD. The ongoing intensity of ADHD behavior can cause parent fatigue and stress. Parent stress has been associated with ADHD (Anastopoulos, Guevremont, Shelton, & DuPaul, 1992) and disruptive child behavior (Eyberg, Boggs, & Rodriguez, 1992) suggesting that the stress adversely affects parental functioning (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993).
Why do good parents (and good teachers) engage in coercive behavior when they are around ADHD children? Here is an example of a coercion analysis of parent behavior; in this case, the “B” is a parent response.

-A = child is loud, or cries, or whines, or argues
-B = parent allows child to "have their way"
-C = child stops being loud, or crying/whining, or arguing
-Future = parent allows child to have their way and this functions to avoid/escape loud, whining, or arguing

Parents can avoid or escape loud angry children by letting them have their way.

Part II. The Behavior Management Flow Chart, Skills Training

The specific skills taught to parents were gleaned from a review of representative published child behavior management research (Danforth, 1998a; unending review, feedback from parents, and data from the research has resulted in ongoing refinements). Then, a task analysis of the research was conducted. The chain of responses required of the parents was broken into precise individual components, in their proper order. This task analysis sub-divided behavior management into individual, discrete, and orderly steps. The BMFC (see Fig. 1) is a flow chart diagram, based on the task analysis, of the child behavior management steps taught to parents. The flow chart synthesizes the research on child management into a cohesive visual unit that allows a clear portrayal of child behavior management steps.

Figure 1. The Behavior Management Flow Chart is a flow chart of steps taught to parents. Rectangles indicate an adult response, diamonds indicate a yes/no option, and circles indicate that the interaction is over.

The key in the lower left-hand box of the BMFC describes the function of each geometric figure. Rectangles describe an adult response. Diamonds describe a yes/no option. The word or phrase in the diamond is followed by a question mark. Two lines emerge from each diamond. One line indicates that "yes", the condition in the diamond was met, and a second line indicates that "no" the condition described was not met. Finally, circles indicate that the interaction is complete.
In addition to the didactic material presented above, there are critical differences between the BMFC parenting steps and well-known parent training programs based on the two-stage Hanf model (c.f., Anastopoulos, Hennis-Rhoads, & Farley, 2006; Barkley, 1987; Eyberg & Boggs, 1989; Forehand & McMahon, 2003). During training, the visually depicted BMFC serves as the basis for discussion and as a practical guide to parenting in the home and community. The supplemental written materials presented to parents have steps that correspond to the steps of the BMFC. Two versions of the BMFC are available. When adults are practicing steps 1-6, an abbreviated flow chart illustrating just those steps is used. When adults subsequently apply the entire program, the entire BMFC is used. Individual trainers can subdivide the BMFC further as they see fit. When adults first practice the program, they use the flow chart as a visual prompt, thereby decreasing errors during learning trials. Then flow-chart use is faded. When parents implement the program in the home setting after session five (see Table 1), give them copies of the BMFC to post for reference. When parents implement the program in the community after session six, give them wallet-sized laminated copies of the BMFC to keep in the car and on their person. Generalization across settings and over time is facilitated because adults have copies of the BMFC to which to refer. In a sense, the parent has constant access to a visual representation of the empirical literature on child behavior management.

In the written outline presented to parents, each step begins with a description of the procedures the adult performs in the context of child behavior, followed by exemplars and in many cases, non-exemplars. The BMFC is the unit that provides structure for the synthesis of the literature. The flow chart depicts a chain of skilled responses that parents are to emit throughout the day in an effort to help clinically disruptive children behave in a developmentally appropriate fashion. To ensure appropriate parent expectations, emphasize that no one action by a parent will change the child. Instead, each interaction is one learning trial, and over many learning trials, the child's behavior will improve. The child's behavior will not suddenly change.

Use the supplemental written materials in conjunction with verbal explanation, trainer modeling, and role-play with trainer feedback. These teaching strategies are essential to a successful outcome. Evaluations of parent training programs should take the medium of information presentation into consideration because the mode of presentation, such as a task analysis leading to the use of a flow chart, may influence the effectiveness of the training program (O'Dell, Mahoney, Horton, & Turner, 1979).

Decision diamonds in the BMFC reflect flexibility and allow the parent options to adapt the program to situational demands. Teach the parenting skills in a forward chaining fashion (see Martin & Pear, 2003, p. 138), in the same order that they are presented in the flow chart and consistent with how the parent is to utilize the strategies in the context of child misbehavior. That is, the first response emitted by parents when they want to direct their child is a command or instruction, and this is the first skill taught; the second response emitted by the parent is to wait silently for 5 seconds, and this is the second skill taught, etc.

There is enough flexibility in the design to use the same flow chart in many settings. This was not designed as a parent training program; it was designed as a behavior management program for any adult who works or lives with children who have disruptive behavior. To enhance consistency for the child, parents follow the parameters of the program across settings because the program can be adapted to different settings. For example, the timeout setting at home may be the landing at the bottom of a flight of stairs whereas the timeout setting at grandparents may be sitting at the kitchen table. Praise can be presented anywhere.

The principal target behavior of the BMFC is child noncompliance. Psychometric research has identified noncompliance as a fundamental element of disruptive behavior patterns (e.g., Achenbach,
so compliance is a response relevant to many settings and occasions. Functional analyses have shown that noncompliance serves as the cornerstone response in the development of disruptive behavior (Patterson, 1976; Wahler, 1975), and such behavior consistently covaries with important parameters such as peer rejection (Coie & Kupersmidt, 1983) and academic failure (Wilson & Herrnstein, 1985). Furthermore, when children with ADHD disobey to a degree that warrants an additional characterization as ODD, their prognosis includes greater aggression, active defiance, peer problems, academic underachievement, and family disturbance than that for children with ADHD behavior who do not exhibit characteristic ODD behavior (Gomez & Sanson, 1994; Kuhne, Schachar, & Tannock, 1997).

Instructions are common antecedents to disruption, and parents are most inconsistent when an interaction sequence begins with a parent command requesting child compliance (Gardner, 1989), so the command/instruction is the logical place to start.

One rarely cited, yet parsimonious explanation for the failure of behavior management training is suggested when the BMFC is examined: what trainers are asking adults to do is exceedingly hard. The Flow Chart elucidates a 26-step procedure that requires conditional discriminations in the context of acute child misconduct. Child antisocial behavior itself is likely to have a negative impact on parental discipline practices (Vuchinich, Bank, & Patterson, 1992). Disruptive child behavior likely elicits adult emotional responses that are incompatible with recall and implementation of complex tasks. Child behavior management for children with ADHD and ODD is difficult under any circumstances, and perhaps this difficulty is underestimated. Furthermore, idiographic assessment is likely to reveal that management skills are not uniform across or within adults. Rather than assuming that all adults will need an equal degree of training on all steps, trainers need to concentrate on areas of individual difficulty (c.f., Richman, Harrison, & Summers, 1995). Individual ADHD children respond to behavior management procedures in distinct ways (Pelham & Hinshaw, 1992) and it is reasonable to assume that parents also respond in distinct ways.

The remainder of this paper describes the specific skills taught to parents. Some behavior management steps are effective because the components of the step are informed by predictable ADHD behavior and empirical behavior management strategies. Such knowledge can lead to accommodations that attenuate the development of ODD. Each step described below corresponds to the steps in the flow chart.

*Step 1. Practical Commands or Instructions*

First, parents decide if the child is required to follow a directive. Presenting the child with choices is encouraged, often in the form of questions or favors, but only if the child really has a choice. If it is chilly outside, one may ask, “Do you want to put a coat on?” This is encouraged if the child really has a choice about wearing a coat because s/he can learn to experience the natural consequences of the decision and there is not an extrinsic parent consequence. However, if it is very cold and parents decide the child must wear a coat then do not ask. Do not give a choice in a no-choice situation. Therefore, the first parent response is a decision, and if they decide the child must do something, then parents present the command in the imperative form, indicating that the behavior is required. Do not present commands that must be followed as favors or questions. Consequences are contingent upon a child’s compliance to instructions presented in the imperative form. Consequences are not presented contingent upon a child’s adherence to requests framed as questions or favors. Parents often describe this as “picking your battles”, and one result is that fewer required commands are presented. This is good because when fewer commands are presented then the probability of escalating coercive exchanges is decreased (Patterson, 1982) and the probability of compliance is increased (Lobitz & Johnson, 1975).

Second, present commands that focus on behavior that the child has to do now, not later. Parents can predict commands they will be presenting later, either in a few minutes or perhaps even hours later. If
parents know they will be presenting a command, tell the child. For example, rather than instructing a child to, "feed the dog after you eat breakfast", forewarn the child that the dog will have to be fed after breakfast, and then after breakfast say, "feed the dog now, please". Consequences are presented contingent upon a child’s compliance to instructions requiring an immediate response. Consequences are not presented contingent upon a child’s adherence to instructions about behavior to be emitted in the future.

Third, as part of the command, include the reasons why the child is to do something. Hazy explanations such as, "It's important to me that you do this" are not reasons. Fourth, before presenting the command, make sure the child is oriented or observing. Get reasonably close, within 3 meters, use the child's name, and establish eye contact. Fifth: clearly label or describe the required behavior (i.e., operationalize). Note that declarations describe the state of things, but they do not tell a child what behavior to do. For example, "It's supper-time" informs the child that it is the time of day when supper is eaten, but it does not tell the child to move to the room where supper is. Declarations do not label a response. Sixth, when a child is likely to disobey, present short instructions that have few steps (i.e., chunking).

Finally, encourage patience and acknowledge that mistakes are inevitable. So, if the child must follow the command, but the command is presented in a way that does not meet the criteria for a practical command or instruction, do not move on to Step 2. The likelihood of compliance is too low. First, restate the instruction correctly. Example: if Anthony must wear a hat because it is cold outside, and you ask, "Do you want to put your hat on?" while you are looking in the cupboard, then Anthony is less likely to put on the hat. So, start over. Go to Anthony and get eye contact while you restate the command directly, "Anthony, it's really cold out today so put your hat on". As such, whereas hyperactive children can be active and impulsive, parents are encouraged to take their time.

**Step 2. Wait Silently**

Allow the child 5 seconds to start following directions. After presenting the command, be silent and do not interfere with the child until they either begin to follow directions, or 5 seconds passes. Parents report that this is the most difficult step. Parents remain with the child and stay within 3 meters. They do not glare at the child, but they do look towards them. If the child begins to argue here, which is expected, it is very important that parents not engage in debate or argument that escalates the intensity of the aversive interaction. If the parent begins to engage in an aversive argument, there is an increased probability that the child’s subsequent responses will be more aversive (Patterson, 1982). Furthermore, in negative reinforcement, the rate of learning is a function of the magnitude of reduction of the aversive stimuli (Hineline, 1977; 1984). So, if the parents gives a command (an aversive), the child argues, the parents yells (another aversive), the child argues more, and then the parent gives in, the child is more likely to argue in the future because the consequence for ongoing child argument in the past was escape from the command and yelling, not just escape from a command.

**Step 3. Decide if the Child has Started to Follow Directions**

Decide if the child has started to follow directions. Base the decision upon what the child has done, not what the child says they are going to do.

**Step 4. Praise**

If the answer to Step 3 was “yes”, the child complied, then the moment the child starts to follow directions, praise them in an effort to strengthen (reinforce) compliance. The target behavior is beginning to follow directions, not completing the task. We can anticipate that the child will not finish many tasks for that is a defining feature of ADHD.
Praise is an essential component of the program. First, as noted above, children with ADHD are praised less when they behave well and adults are less responsive to their needs. A lack of maternal warmth and responsiveness is correlated with comorbid ADHD/Conduct Disorder (Piffner, McBurnett, Rathouz, & Judice, 2005). Timeout (see below) might not work because of a lack of praise and other reinforcers in the child’s time-in setting. Finally, the children have not demonstrated the response class of compliance. When teaching a new behavior, a dense schedule of reinforcement, not intermittent reinforcement, is most effective. When teaching compliance and bringing it to a developmental norm, all compliant responses are praised.

Practical praise has four parts. Praise when they begin to follow directions, not when they have finished. Make a positive comment about the child or their behavior. Name the good behavior (or the outcome of the behavior). Finally, present it with positive emotion. Parents should smile and use a nice physical touch if they want. Parents do not praise if they are angry, and this is anticipated in the context of some intense hyperactive behavior that many adults find aversive. Parents do not scold the child for past responses while at the same time praising the child for what they are doing now. This scolding may diminish the reinforcing effect of the praise, and it is too late to punish the undesired response. A non-example is, "You were really polite when we ate supper; why were you so rude at breakfast?"

If the child starts to follow directions, but then they get off task and do not finish, the adult starts at Step 1, and presents a command to start again. Otherwise, we strongly emphasize parents to “catch them being good” whenever the child stays with their assigned task.

**Step 6. Reprimand.**

If the answer to Step 3 was “no”, the child did not comply, present a verbal reprimand. Name the target behavior or describe it. Second, present the reprimand immediately, at the fifth second. This is especially important if the behavior of other children reinforces the target child's misbehavior. Make eye contact (glare). Use a firm steady voice, do not be soft (‘wimpy’ is a word that many parents understand). Do not yell. This is better said as “try as best you can to yell as little as possible”. If parents yell too much, then children may habituate and yells will not work to punish behavior anymore. It is best if other children do not hear the reprimand. Stay within 3 meters of the child. The reprimand is short and to the point. For parents who like to lecture, it helps to know that for ADHD children extra narrative and detail can reduce comprehension and performance (Edmonds & Smith, 1985; Shroyer & Zentall, 1986), and the children pay attention less to long tasks (Zentall, 1985; Zentall & Zentall, 1976). The child’s attention skills and angry emotional behavior associated with disruptive defiance is incompatible with the skills necessary to comprehend and respond effectively to long parent explanation.

**Step 7. Warning about Timeout**

As part of the reprimand, present the child with one firm warning that if they do not follow directions they will have to go to a timeout. With the warning, name the desired response and what will happen if the child does not emit that response. Timeout details are forthcoming, but note that “timeout” is an adult phrase; do not use it with children. Rather, tell the child what they will be required to do if they do not comply. An example is, "Fred, if you do not put the bird back in the cage like I said, you will have to go to your room". The purpose of the warning, or the second chance, is to weaken timeout resistance while simultaneously accommodating for attention problems.

We are repeating the command here, and while this may be inconsistent with behavioral doctrine, this accommodates for attention problems. We do not hold children accountable for their ADHD characteristics. Not following directions is an inattentive defining feature of ADHD, and it is expected.
Therefore, we accommodate for ADHD by clearly re-stating the instruction one time, paired with a warning. If the instruction is presented twice, as defined under practical command, with five seconds to allow time, then we submit that we have accommodated for ADHD and any ongoing disobedience is defiance, for which the child is accountable.

**Step 8. Wait Silently.**

Parents remain silent for five seconds and do not interfere with the child until they have begun to comply with the command.

**Step 9. Decide if the Child has Started to Follow Directions.**

**Step 10. Praise**

If the answer to step nine was “yes”, the child complied, then the moment the child starts to follow directions, praise them. Present consistent praise regardless of whether the child followed the first command or a command after a warning. The importance of praise was noted above.

**Step 12. Timeout (Timeout from Positive Reinforcement)**

Timeout is a complex procedure that takes at least two hours to teach. Consequences for noncompliance are an essential part of the treatment protocol (Danforth, 1998a). This is important because timeout is an ethical, non-corporal consequence that is an effective punishment. Yet, it only takes a few minutes and it allows the adult and child time to separate during a stressful situation. Most parents report that they have used timeout before and it does not work. This author expresses the opinion that in his experience, he has never seen any child treatment procedure taught wrong and used wrong more often than timeout; that among child-care practices there is a greater discrepancy between research (with literally hundreds of published articles, see Roberts, 1988) and popular practice of timeout than any other procedure.

The idea behind timeout is to make the behavior it follows happen less often; timeout is punishment. Emphasize two points for parents. Timeout might work because the child moves from a more reinforcing to a less reinforcing place. This provides another opportunity to discuss the importance of praise. Parents are encouraged to monitor tone of the house, to have fun and enjoy their children. Timeout is more effective when the tone in family interaction is positive because the child truly loses positive time. Timeout may also work because it interrupts arguments and yelling between children and adults.

*Three decisions.* Describe timeout, but before using timeout for the first time, parents go home and make three decisions to discuss at the next session. First, parents decide exactly what behaviors result in timeout. Parents have the option of selecting up to two individually defined target behaviors (in addition to noncompliance after the warning) for which timeout would be the consequence. Typically, parents choose responses such as physical aggression, tantrums, property destruction, and verbal abuse. Sometimes, parents choose not to add additional target behaviors. A timeout warning does not precede intense misbehavior such as this. Instead, see the diamond above Step 12. When these additional timeout target behaviors occur, parents immediately move to the diamond above Step 12 on the BMFC and send the child directly to timeout without a warning. Help parents operationalize clear target behaviors and focus on responses indicative of ODD (e.g., aggression) and not ADHD that are nonetheless annoying to adults (e.g., fidgeting). Re-emphasize that internal sensory stimulation reinforces hyperactive motor behavior, not external consequences. There are no data showing that disciplinary consequences punish hyperactive motor behavior.
Second, parents go home and select a place for timeout that does not have reinforcing value, a “dull” place. A physical aspect of the environment that allows clear demarcation of whether a child is “in” or “out” of timeout is required. For practical purposes, parents may choose more than one location, and typical sites include the bottom of staircases, the end of a hallway, a boring room, or even a bedroom if pleasurable toys do not dominate it. Although a chair is available should the child choose to sit, we never require the child to sit in the chair. This is because children with hyperactive behavior may find required sitting aversive. We want to avoid setting the occasion for timeout resistance. We do not arrange a contingency wherein standing and moving are disciplined when we can rightly predict that the child with hyperactivity will probably move, stand, and leave the chair. There is no empirical evidence that sitting in a chair is a critical component of timeout success. Review timeout locations with parents. Remain vigilant for impractical locations (e.g., bathrooms in a one-bathroom apartment, shared bedrooms where a younger child goes to bed before the target child with ADHD) and aversive locations (a cold dark basement).

Third, parents create an individualized menu of possible backup consequences, one of which is presented contingent upon child refusal to go to timeout (Step 22). Present the backup on the same day that the child refuses timeout. Review backup consequences for practical utility and parent willingness to administer the backup. Detail about the backup consequence is presented in Step 22.

Timeout preview. After the above have been decided and then reviewed with the trainer at session five, parents go home and with the child and calmly explain (a) the target behaviors (b) where timeout is, (c) what is expected of the child when they are told to go to timeout, and (d) the backup discipline if the child does not do the timeout correctly (see Step 22). All the adults who will be implementing timeout are part of this preview. For example, both parents, or a parent and a grandparent participate in the preview. Conceptualize the preview as a teaching and instructing moment, like previewing a command, not a reprimand. Conduct the preview when the child is behaving well. An example follows of a paraphrased script trained to a single mother for use with her 5-year old boy: "You are being a good boy right now, but sometimes you have a hard time following directions and hitting, and mommy is going to help you with that. So, every time you don't follow directions or you hit, you will have to go to your room for 5 minutes. I will not talk to you when you are in your room. Don't come out by yourself; I will tell you when you can come out. If you don't follow directions or you hit, and then you won't go to your room when I say to you, you will be in big trouble (parent describes some of the backup consequences, see Step 22). But you are following directions right now so you are doing a good job now.”

Completing a timeout. (a) When the target behavior occurs, parents label it and tell the child that they must go to timeout. For example, "Mark you didn't follow directions when I told you to put your coat on so you have to sit on the stairs". (b) Parents stay calm and say it only once. Parents do not talk, debate, or quarrel with the child, a task that parents report is difficult. If the child starts to follow the original command after parents tell them to go to timeout, it is too late; they still have to go to timeout. (c) When the child arrives at the timeout site, parents tell them, "Stay there for x minutes, I will decide when you can leave". The stay is 1 minute per year of developmental age. (d) Parents do not talk to the child again until the timeout is over. (e) Parents do not “guard” the child, or stare at the child; they move away and do something else. (f) Wait until the child has been in timeout for the specified duration, and has been composed and not agitated for the last few minutes of timeout. (g) Ignore the child’s behavior unless it is disruptive to the house.

If the child is loud and disruptive at the end of their timeout, do not end the timeout. Instead, end timeout after they have been quiet for a few (1-3) minutes. Still, do not talk to the child. Do not wait until the child is quiet to start the timeout and do not start the timeout all over if they are disruptive. Parents are teaching the child that when they are calm, the timeout will end. Parents do not adventitiously teach the
child that disruptive behavior is consequated by timeout cessation. Do not use timeout for other misbehavior until it has been previewed with the child.

Step 13. Is the Child Completing the Timeout Correctly?

Decide whether the child has completed the timeout well. The child should stay in the timeout setting, and behave in a manner that does not disrupt others.

Step 14. End Timeout

If the child completes the timeout well, then the timeout is over. Tell the child what they did that resulted in timeout and it is over and they may come back to the kitchen now. Then, drop the subject and start fresh with the child. Reminders here about what the child did that resulted in timeout do not help. The discipline was timeout, and it is over.

This author’s experience is that some parents report that with behavior modification, parents are encouraged not to speak with their children about misbehavior. We address this issue here. First, it is not true that behavior therapists discourage parents from speaking with their children about these issues. Encourage parents to problem solve with their children. Encourage parents to seek information about antecedents to misbehavior (i.e., descriptive functional analyses). For example, a parent may ask, “What happened to make you so mad that you swore at me this morning?” Encourage parents to tell their child about the natural consequences of their disruptive behavior. For example, “When you swore at me and then kicked the wall, it made me feel sad and now we have to fix the wall”. However, it is true that we discourage parents from engaging in these conversations while their child is disruptive or shortly (within minutes) thereafter. Such dialog at that time is more likely to evolve into a coercive exchange, or the emotion associated with the disruptive behavior is incompatible with productive dialog. First, after timeout get the child back into their routine and praise the next successful enterprise.

Step 15. Does the Child Still Have to do the Task from Step 1?

If the child is in timeout as a result of defiance, then after the child successfully completes timeout, decide if the child still has to do the task that they were told to do in the first place (from the original command in Step 1). The purpose is to prevent timeout from functioning as negative reinforcement that allows the child to avoid the requirements of the instruction.


If, for whatever reason, the child no longer has to do the task, then the interaction is complete; drop the subject. While inconsistent with behavior analytic principles, there are occasions where repeating a directive is impractical. For example, timeout may have been presented because a child refused to put on a hat, but on the way to timeout, the child puts on their hat, and when they exit timeout, the hat is on their head. On the other hand, timeout may have been presented because a child refused to shut a door on a sub-zero day. When the child is in timeout, most parents will shut the door because it is too cold. The practicing therapist will encounter many similar situations.

Steps 17 & 18. Command and Warning

If there is a remaining task that needs completion, present a command (c.f. Step 1) instructing the child to complete the task, paired with a warning (c.f., Step 7) that if they do not follow directions, they
must return to timeout. In effect, the child learns they will either go to timeout or follow directions. This prevents timeout from functioning as escape from an assigned task. Anecdotal reports by parents indicated that repeated timeouts (i.e., Steps 15-18 leading to another timeout for ongoing noncompliance) were very rare, and no child was reported to go through this loop more than three times in succession.

Step 9, again. Decide if the Child has Started to Follow Directions.

If the child follows directions now, praise them (to Step 10). If the child does not follow directions, direct them to timeout (to Step 12).

Step 19. Disruptive Behavior during Timeout, the Warning about the Timeout Backup.

If parents decide that the child is not doing timeout well in Step 13, go to Step 19. If a child (a) refuses to do timeout or leaves timeout or, (b) disturbs others during timeout, then parents give one warning that the child will receive a backup consequence if they do not complete their timeout correctly. The backup is a major consequence for refusal to do timeout. Parents select one backup consequence from the list developed earlier. An example might be, "Philip, if you do not go to your room, you are grounded, and you will stay inside the house for the rest of the day"

This step illustrates the importance of decisions made earlier. The timeout location needs features that clearly demark when a child is “in” timeout verses when they have “left” timeout. A door jam, a line on the floor or rug, the bottom of the stairs, can all serve as salient boundaries. Parents do not “play games” here. As noted above, defiance is a serious behavior problem and the treatment is a serious endeavor. If a child is in timeout in their room and mockingly stands with one foot out of the room, then the child is out of the room. Therefore, present the backup warning. The phrase “disturbs others during timeout” is deliberately ambiguous because the standards change depending upon the setting. We encourage parents to tolerate as much “disturbing” behavior as possible, but the criteria might change. For example, when the child visits grandparents, a moderate degree of noise might be disturbing, but if the child is outside in a park, an intense degree of noise might not be disturbing.

Step 20. Wait Silently

Give the child 5-10 seconds to make their choice as indicated by their behavior. Some parents have taught us that they can help the child make a good decision by clarifying the potential consequences. For example, "If you sit on the steps (for timeout), it will be for 5 minutes. If you do not sit on the steps, you will have to stay in the house for the rest of the day, three whole hours. Five minutes is a lot shorter than 3 hours".

Step 21. Is the Child Completing the Timeout Correctly?

This is the same as Step 13. Decide whether the child has completed the timeout well. The child should stay in the timeout setting and behave in a manner that does not disrupt others.

Step 22. Backup Consequence

If the child continues to refuse timeout or leave timeout, or continues to disturb others, present the backup consequence. The purpose of this consequence is to prevent timeout refusal. The backup consequence needs to be strong so that adults will not have to use it often. If the backup is weak, it may have to be used frequently, and timeout becomes less effective. This consequence is the most severe one parents are willing to use, but they must be willing to use it. The sooner the backup consequence occurs, the better, but backup consequences must occur the same day as timeout refusal. Examples of backup
consequences selected by parents include grounding, no playing outside, privileges removed (e.g., bike riding, television, computer, video games, handheld electronics devices, fishing, the telephone, favorite toy, special food treat, etc), early bedtime, loss of opportunity to engage in special event such as a school field trip, soccer, little league, sleep over, or after school sports or activity. As part of their backup menu, all parents include the consequence of not allowing the child to continue whatever activity in which the child is currently engaged (e.g., playing with cars). The logic is that if a child is currently engaged in an activity, then the activity is acutely reinforcing.

*Step 23. Are Parents Willing to Present Another Backup Consequence?*

After applying the backup consequence for incorrect timeout, parents decide if they are willing, or have time, to give another backup consequence for this episode of misbehavior. The question for parents is, "Am I willing to give another backup punishment if this child continues to refuse timeout?" This is an adult decision, and although the option is inconsistent with behavioral doctrine, the issue is practical. Parents have concurrent schedules with other work and community obligations, other children, and other stresses. If the parent training program is so indebted to behavioral doctrine that parents do not have time to meet these other obligations, then parents are less likely to follow through across time (months, perhaps years) and over settings (home and community). Behavior analysts need to recognize that parents require options within the framework of treatment programs.

*Step 24. Timeout*

If the answer to Step 23 was "yes", then parents are willing to apply further backup consequences for failure to do timeout correctly. Therefore, go to Step 12 and direct the child to timeout again. It is vital to send a child to timeout only if parents are willing to present a backup consequence for timeout refusal. Parents reported that they never used a backup consequence more than two times in one day, by either choice or circumstance. Parents also reported that as weeks progressed the backup consequence was used less often and then timeout became less necessary whereas warnings about timeout remained common.

*Step 25. Separate*

If the answer to Step 23 was "no", then parents were not willing to give the child another backup consequence for refusing to do timeout. So, defuse the situation without giving in entirely. First, isolate the child from other children and adults in the setting. Since the child of interest is less likely to comply in the midst of a disruptive episode, it is best to ask other children to move away than to expect the problematic child to begin following instructions now. Second, walk gently to the child, place a hand calmly on their shoulder, and say, "We will keep on working together to help you learn to (name the behavior that resulted in timeout, e.g., follow directions, not to hit, etc.). Do not apologize; do not be conciliatory. Finally, parents physically distance themselves from the child. Do not speak to the child until they have calmed down. If the child is still in the timeout setting, leave them there. This is similar to what others have described as “nonexclusion” timeout (Brantner & Doherty, 1983) or “out of room” timeout where parents leave the room (Scarboro & Forehand, 1975).

**Conclusion**

Ongoing efforts to develop programs to help increase the rate of compliance behavior and decrease aggression in children with ADHD behavior are warranted. Children with hyperactive behavior remain at risk for clinically significant oppositional and disruptive behavior, and the prognosis for children with both ADHD and ODD is very poor when left untreated. Parent training is time consuming and it is important to acknowledge that behavior management procedures are deceptively complicated and difficult for parents to perform (Sajwaj & Dillon, 1977). Behavior therapists have a lot to offer such families.
References


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**Footnotes**

1 A complete copy of the supplemental written materials that correspond to each session and step of the BMFC is available from the author.
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Trichotillomania:
Behavioral Assessment and Treatment Interventions

Brandy L. Kell & Victoria E. Kress

Abstract

This article examines the behavioral treatment of Trichotillomania. A brief overview of the diagnosis and assessment of Trichotillomania is provided. Guidelines for a structured clinical evaluation when working with people diagnosed with Trichotillomania are supplied. The most effective behavioral interventions and treatments for working with client’s diagnosed with Trichotillomania are discussed.

Keywords: Trichotillomania, Behavioral Assessment, Behavior Treatment

Introduction

The reported incidence of Trichotillomania is rising with an estimated prevalence rate of 1%, suggesting that nearly 2.5 million people in the United States have this disorder (Diefenbach, Reitman, & Williamson, 2000). Increased attention should be given to the assessment and treatment of Trichotillomania to fulfill the escalating needs of those dealing with this mental disorder. There is a tendency for the severity of this disorder to be overlooked due to the underestimation of prevalence, and high rate of comorbidity with other psychological disorders (Mulinari-Brenner & Bergfeld, 2001). This article will provide suggestions for the behavioral assessment and treatment of Trichotillomania.

It is helpful for individuals to become familiar with the diagnostic features of Trichotillomania to establish the proper assessment and treatment of this disorder. The disorder was introduced in 1987 as an impulse control disorder (American Psychiatric Association, 1987). Trichotillomania is currently defined in the DSM-IV TR (American Psychiatric Association [APA], 2000) as the recurrent pulling out of one’s own hair resulting in noticeable hair loss, in which an individual experiences persistent tension prior to pulling out the hair or when attempts are made to resist the behavior. Once the behavior is occurring or has occurred, the individual may feel pleasure, gratification, or relief. For the disorder to be considered clinically significant, that is not a result of a general medical condition or another mental disorder (American Psychiatric Association, 2000).

Trichotillomania often begins or is recognized in late childhood or early adolescence with an average age of onset at 13 years (Christenson, Mackenzie, Mitchell, & Callies, 1991; Simeon et al., 1997; Stein, Christenson, & Hollander, 1999; Walsh & McDougle, 2001). Despite the early onset, there is no consensus over the etiology of Trichotillomania (Diefenbach et al., 2000; Stein et al., 1999). Various explanations have been offered, that include viewing it as a feature of Obsessive Compulsive Disorder (OCD) as evidenced in the high comorbidity rates (Christenson, Mackenzie, & Mitchell, 1991; Elliott & Fuqua, 2000), psychoanalytic perspectives (Diefenbach et al., 2000; Stein et al., 1999) and neurobiological factors (Ashton, 2001; Ravindran, Lapierre, & Anisman, 1999).

For the purpose of this article, trichotillomania will be addressed from a behavioral perspective and behavioral assessment and treatment interventions will be reviewed. Behaviorists believe that Trichotillomania is basically a coping behavior that develops in response to stressful stimuli. The hair pulling behavior is reinforced through classical and operant conditioning that culminates in an individual
reverting to hair pulling as a technique used to reduce tension (Diefenbach et al., 2000; Stein et al., 1999). In the remainder of this article, effective behavioral interventions will be reviewed.

**Behavioral Assessment of Trichotillomania**

As in the assessment of all mental and emotional disorders, the clinician should conduct a clinical interview that provides a thorough assessment of a multitude of factors. Emphasis may be given to age of onset, frequency (e.g., does hair pulling occur daily, is it persistent or only present in times of distress, does it follow a pattern) and quantity (i.e., pulling hair strands or clumps), emotional state (before, during and after hair pulling), self employed efforts to reduce or stop the behavior, past treatment interventions and family patterns (Bordnick, 1997; Christenson, Mackenzie, & Mitchell 1991; Muliniari-Brenner & Bergfeld, 2001; Simeon & Favazza, 2001; Stein et al., 1999). Environmental (external), motoric (physical response), sensory, affective and cognitive factors that influence pulling behaviors should also be explored in the clinical interview (Stemberger, Stein, & Mansueto, 2003).

The goal of assessment is to determine a diagnosis and acquire information to assist in developing the treatment plan (Diefenbach, Tolin, Crocetto, Maltby, & Hannan, 2005). Before treatment can be implemented it is necessary to assure that hair pulling is the behavior that the client wishes to address in counseling (Mansueto, Golomb, Thomas, & Stemberger, 1999). Following confirmation that symptoms associated with Trichotillomania are the identified problems; antecedents, behaviors and consequences should be discussed with the client (Mansueto et al., 1999; Stemberger et al., 2003).

The assessment of Trichotillomania is complicated by the tendency for individuals to be hesitant to disclose that they are suffering from Trichotillomania (Stein et al., 1999). Clinicians should make careful observations and employ carefully structured questioning to assist in uncovering information that the client may be resistant to disclose. Clinicians must look for overt and subtle hair pulling from various regions of the body where hair grows by not limiting observations to the scalp region (Cohen, Stein, & Simeon, 1995; Enos & Plante, 2001; Stein et al., 1999; Walsh & McDougle, 2001). Social isolation may be another factor associated with Trichotillomania, as individuals may withdraw from others due to the belief that they are alone in their struggles (Diefenbach et al., 2000). As with all mental and emotional disorders, mental health professionals should consider the cultural context in which the trichotillomania occurs, as hair pulling may be a socially acceptable ritual rather than a disorder (Stein et al., 1999).

Several instruments have been developed and tested for the assessment of Trichotillomania. The MGH Hairpulling Scale (MGH-HPS) is a self-report instrument that provides information concerning the frequency, intensity, associated stress and attempts to control behaviors connected with Trichotillomania (Diefenbach et al., 2005; Twohig & Woods, 2004). The Psychiatric Institute Trichotillomania Scale (PITS) is a clinician rated assessment tool that assesses multiple features of hair pulling. The NIMH Trichotillomania Severity Scale (NIMH-TSS) is formatted as a clinical interview that assesses hair-pulling behaviors. The NIMH Trichotillomania Impairment Scale (NIMH-TIS) is a global assessment of behaviors and feelings associated with hair loss. The Clinical Global Impression (CGI) assesses similar features of the aforementioned scale with the added feature of assessing comorbid features. The scales vary in reliability and validity (Diefenbach et al., 2005). All of these measures can be helpful tools in the assessment of Trichotillomania.

**Role of Functional Assessment in the Treatment of Trichotillomania**

In order to decide which treatment modality would be the most effective, some researchers suggest (e.g., Olympia, Heatherfield, Jensen, & Clark, 2002) that a functional assessment should be implemented to identify the relationships between the behavior, antecedent, and consequence events. Regardless of diagnostic intent, functional behavior assessment procedures serve the purpose of designing
effective interventions (Hayes & Follette, 1992). When a mental health professional conducts a functional assessment, interviews, direct observations, and systematic manipulations can be employed (O’Neill, Horner, Albin, Storey, & Sprague, 1990), and archival record reviews and behavior rating scales may be used in the assessment of antecedents and consequences. Olympia et al. (2002) suggest that direct forms of functional assessment provide more valid information, because there is no reliance on memories or information from obtained records. A myriad of assessment techniques can be implemented depending on the resources available to the mental health professional, the particular diagnosis that he or she is working with, and the age if the client.

With regard to trichotillomania, the counselor must focus on determining the environmental variables that maintain problem behaviors. The most popular model is the antecedent-behavior-consequence (ABC) approach to determine triggers and function (Olympia et al., 2000). First, the mental health professional describes an observable behavior and records events that immediately precede (i.e., the antecedent) and follow the behavior (i.e., the consequence). Second, while the antecedents and consequences are recorded, the behavior is documented (Olympia et al., 2000). Lastly, once the consequences are understood, effective treatment interventions can be postulated. Stemberger et. al. (2003) add that assessing antecedents, behaviors, and consequences, is a prerequisite for effective treatment. This approach is effective for counselors because it is based on the assumption that contexts allow the stimulus that is responsible for the behavior and maintaining it over time.

According to Stemberger et al. (2003), antecedents to engaging in behaviors common of individuals diagnosed with trichotillomania can be identified as environmental, motoric, sensory, affective, or cognitive. For example, environmental antecedents include a particular place where hair pulling usually occurs; antecedents of a motoric nature include simple motor habits; other individuals enjoy the sensation associated with hair pulling; some clients feel a calming sense or energized by hair pulling; and cognitive antecedents apply to those who engage in pulling behaviors to get rid of unwanted or ugly hair. The authors assert that only one or two of the above antecedents play a role for some individuals. All of the above antecedents are applicable to other clients. Associated with the above antecedents, behavior components exist. For example, for the environmental modality, going to a particular setting is the behavior. For the motoric realm, choosing a particular body site to remove hair is a behavior component. Behaviors associated with the sensation antecedent range from tactile search of hair to examining the hair or root after pulling. A plethora of behaviors are possible for each modality, and counselors must record their observations in detail to decide which antecedent component is applicable. Finally, Stemberger et al. (2003) are convinced that the consequences of trichotillomania serve the function of maintaining the overall cycle and influencing the likelihood of occurring again in the future. Depending on the behavior associated with a particular antecedent modality, the individual may interpret that hair pulling experience as reinforcing or punishing. For example, punishing stimuli for the environmental realm would be criticism or disapproval. A reinforcer for the affect domain could be relief from stress or distraction from obligations. The idea of regaining self-control could be a punishment for the cognitive modality. Counselors can employ the ABC model prior to identifying specific interventions. The ABC model is a widespread behavior analysis technique that can be implemented with other assessment methods. Once function is determined, it can be linked to specific interventions, for example if the function is sensory, an enriched environment, reprimands or redirection could all be employed. If the function is attention, reprimands and redirection should be avoided and the client should be taught in alternative ways to get attention and counseled in ways to activate those alternative methods through homework and contracting those alternative methods.
Behavioral Treatments and Interventions

The information obtained in the clinical interview and assessment offers an avenue through which interventions can be tailored to address problem behaviors (Mansueto et al., 1999). Behavioral interventions and treatment approaches of Trichotillomania have been referenced among the most effective treatment techniques and have proven to be promising in producing positive results (Diefenbach et al., 2000; Enos & Plante, 2001; Keuthen, O'Sullivan, & Sprich-Buckminster, 1998; Stemberger et al., 2003).

Treatment should be individually tailored and focused, as one treatment is not solely effective in the treatment of all those diagnosed with Trichotillomania (Mansueto et al., 1999; Stemberger et al., 2003). A diverse spectrum of behavioral techniques and interventions are useful in the treatment of trichotillomania (Diefenbach et al., 2000; Mansueto et al., 1999). Behavioral procedures have led to long-term constructive changes in hair pulling (Nelson, 1982). Several techniques are outlined below that may be incorporated into traditional counseling approaches or implemented as part of a structured behavioral program of intervention.

Nelson (1982) recommended that the clinician collect a baseline prior to implementing interventions. Any attempts to stop hair pulling should be directed at the beginning of the response chain (i.e., prior to the individual lifting a hand to pull hair; Taylor, 1963, as cited in Nelson, 1982). It may be helpful for client’s to label statements that reinforce hair-pulling behaviors (e.g., pulling my hair makes me feel calmer; Yeh, Taylor, Thordarson, & Cocoran, 2003). The consequences that follow hair-pulling influence whether or not the behavior will continue (Stemberger et al., 2003).

The client may be asked to self-monitor his or her hair pulling (Deifenbach et al., 2000; Lerner, Franklin, Meadows, Hembree, & Foa, 1998). Self-monitoring requires that clients record their urges to pull their hair, including the frequency, duration and situations in which the urges occur (Bordnick, 1997; Stein et al., 1999). It is appropriate to request that the client monitor emotions that are experienced in relation to the behavior, as well as triggers that influence hair pulling. Clients can be encouraged to engage in response product measures; such as, saving and counting hairs that have been pulled (Deifenbach et al., 2000; Diefenbach et al., 2005). Recording the pattern of hair pulling through self-monitoring can add insight to the treatment of hair pulling (Deifenbach, 2005).

Researchers have suggested that clients label hair pulling behaviors as compulsions and identify associated triggers (i.e., being alone, reading, talking on the phone). Subsequently, efforts should be made to engage in competing behaviors or refocus themselves to continue engaging in the current behavior (i.e., being with others, taking a walk; Yeh et al., 2003). Competing reaction training teaches clients to use a behavior that is incompatible with hair pulling (Bordnick, 1997; Diefenbach et al., 2000; Enos & Plante, 2001; Lerner et al., 1998; Twohig & Woods, 2004). For example, a client may be asked to make a fist for one-minute when he/she experiences the urge to pull or asked to play with clay (Lerner et al., 1998; Twohig & Woods, 2004). A goal is to inverse the value placed on hair pulling and alternative behaviors resulting is increased time spent on alternative behaviors and decreased time spent hair pulling (Yeh et al., 2003). Clients can be instructed to wear bandages on their fingers, wear gloves, put weights on wrists, clench their fists, put hair in a ponytail or engage in activities that require use of their hands to prevent pulling (Mansueto et al., 1999; Rupp et al., 2000).

Response interruption coupled with differential reinforcement has been effective in eliminating hair-pulling in initial stages of treatment removal (Rupp et al., 2000). Response interruption is a technique employed with the intention of blocking attempts made to engage in hair pulling behaviors (Holttium, Lubetsky, & Eastman, 1994; Rupp et al., 2000). Differential reinforcement is used as a technique to
increase client’s engagement in alternative behaviors or in the absence of the behavior (Rupp et al., 2000). The client can be redirected to engage in more appropriate use of his or her hands (Holttium et al., 1994). The rationale for the aforementioned techniques is seen in the notion that hair pulling behavior has been reinforced, thus alternatives to pulling can also be reinforced (Rupp et al., 2000; Stemberger et al., 2003).

Habit-reversal training is an empirically supported behavioral approach that is directed at increasing awareness of the target behavior (hair pulling), teach alternative coping skills (i.e., knitting), maintain motivation, and increase generalization (Bordnick, 1997; Diefenbach et al., 2000; Elliott & Fuqua, 2000; Enos & Plante, 2001; Himle, Flessner, & Woods, 2004; Lerner et al., 1998; Mouton & Stanley, 1996; Stein et al., 1999). The time spent on alternative behaviors should increase; hence, decreasing time spent pulling hair (Yeh et al., 2003). Strategies should be employed that are aimed at decreasing the number of conditions where hair pulling is favorable and increase conditions that make hair pulling difficult (Stemberger et al., 2003).

Elliott and Fuqua (2000) suggested that punishment is effective in decreasing behaviors associated with Trichotillomania. Some examples of successful punishment techniques are electric shock, topical agents that produce pain and snapping a rubber band. The authors emphasized that punishment is especially helpful in treating individuals with developmental disabilities. Another behavioral approach is the implementation of relaxation training culminating in reduced stress that indirectly reduces the urge to pull hair (Lerner et al., 1998).

Unique approaches to the implementation of behavioral intervention strategies have been offered. Behavioral interventions can be employed via telephone or group setting. Telephone administered behavior therapy has been an effective approach for the treatment of trichotillomania (Yeh et al., 2003). Group therapy has been shown to increase awareness of clients’ internal and external cues associated with the urges to pull their hair, interrupt the sequence of their hair pulling, and introduce alternative behavioral responses to their urges (Diefenbach et al., 2000; Stein et al., 1999). Additional considerations include modifications, generalization and client empowerment. Giving clients the opportunity to review treatment options may aid in client empowerment and motivation (Mansueto et al., 1999). The ability to generalize learned skills to real world situations should be taken into consideration at termination (Gluhoski, 1995). Treatment should be evaluated for needed modifications (Mansueto et al., 1999).

Trichotillomania is a mental and emotional disorder of increasing prevalence. Clinicians have a responsibility to effectively treat individuals struggling with this condition. Behavioral interventions have proven to be effective methods to employ and are worthy of consideration in the development of treatment plans.

References


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Effect of Behavioral Activation Treatment on Fibromyalgia-Related Pain Anxiety Cognition

Duane A. Lundervold, Chris Talley & Michael Buermann

Abstract

Effects of Behavioral Activation Treatment (BAT) on pain anxiety, depression, and pain interference on a 43-year-old female with an 11-year history of chronic fibromyalgia pain are described. Analgesic, anxiolytic, and antidepressant medications were stabilized prior to participation. Dependent measures were the Behavioral Relaxation Scale, a direct observation measure of relaxed behavior, and self-report measures of depression, pain anxiety and pain interference. A within session pre-post training assessment, embedded in a multiple-baseline-across-relaxed-positions single-subject experimental design, was used. BAT, based on the matching law, was comprised of behavioral relaxation training (BRT), activity-relaxation cycles, engaging in valued activities, and visual feedback of functioning. BRT resulted in an immediate increase in reclined relaxed behaviors with generalization to the upright relaxed position. A 100% improvement from baseline pain interference ratings was obtained following BAT. All four dimensions of pain anxiety declined to normative levels following BAT. Pain anxiety cognition declined without direct intervention. Depression declined to normative levels. Medication usage decreased from beginning to end-of-intervention but rose at follow up. Results were maintained at three-month follow up. Pain anxiety cognition was conceptualized verbal behavior that functioned as an establishing operation (EO) affecting consequences of overt and visceral (emotional) pain behavior. Altering contingencies related to overt healthy behavior delimits the effectiveness of the EO. Further research on BAT and pain anxiety cognition EOs is needed with chronic pain patients with fibromyalgia.

Keywords: Behavioral Relaxation Training (BRT), fibromyalgia, chronic pain patients, pain anxiety.

Introduction

Fibromyalgia (FM) is a rheumatic disorder characterized by a constellation of physical symptoms including chronic, diffuse musculoskeletal pain, “tender points” at various bodily locations, fatigue and sleep disturbance (Wolfe, Smythe, Yunus, et al., 1990). Behavioral complaints include depression, memory deficits and “fibro fog” (Baumstark & Buckelew, 1992). According to White, Speechley, Harth, and Ostbye (1995), FM is one of the most common disorders treated in rheumatology clinics in North America. It is estimated that 5% of women and 1.6% of men suffer from FM (White, Speechley, Harth, & Ostbye, 1999). In addition, FM patients are high utilizers of health care (Bombardier & Buchwald, 1996; Penrod et al., 2004). Unfortunately, there is no definitive physical pathology regarding FM; however, evidence suggests a number of physiological mechanisms including dysregulated pain modulation within the central nervous system, alteration of brainwave patterns affecting sleep, and a hyperalgesic response to nociception (Kosek, Ekhholm & Hannson, 1996; Okifuji, Turk, & Marcus, 1999). Environmental causes of altered physiologic function include flu-like illness, physical trauma, for example, automobile accident, or emotional distress (Clauw & Chrousos, 1997; Turk, Okifuji, Starz, & Sinclair, 1996). Stress has been reported to exacerbate FM symptoms. Dysregulation of the autonomic nervous system and hypothalamic-pituitary-adrenal axis has been reported (Crofford, Engleberg, & Demitack, 1996; Bennett, Clark, Campbell & Burckhardt, 1992).

Current psychological conceptualizations of chronic pain include consideration of bioenvironmental variables and their effect on motor, emotional, verbal behavior of pain patients and their social relationships. At present, there is no definitive psychological intervention for FM. Current research indicates that cognitive behavioral and “pure” operant procedures are effective in decreasing pain and disability (Rossy, Buckelew, Dorr et al., 1999; Thieme, Gromnica-Ihle, & Flor, 2003). Further research is needed in this area.
Fordyce's (1976; 2000) pioneering work was instrumental in the development and evaluation of effective behavior analytic treatment programs for chronic low back pain (Sanders, 2003; Turner & Clancy, 1988; Tuner, Clancy, McQuade, & Cardenas, 1990; Thieme, Gromnica-Ehl & Flor, 2003). Nonetheless, it has been argued that intervention targeting only overt behavior is inadequate. Turk and Okifuji (1997) reported that physical, cognitive and affective factors explained more variance in pain behavior and disability than did environmental (operant) factors. However, their results were based entirely on patient self-report. Nonetheless, greater emphasis has been placed on cognitive factors related to pain treatment models, emphasizing the need for cognitive restructuring. (See Turk & Gatchel, 2002).

Pain anxiety has been found to accompany chronic pain and influence treatment outcomes (McCracken & Gross, 1998). Pain anxiety is a complex response class comprised of fear (emotional response), cognition (verbal behavior), physiological anxiety (sensations), and escape/avoidance behavior (McCracken, Zaylor & Gross, 1992). These behaviors have both respondent and operant functions (Davey, 1997; Kehoe & Macrae, 1998; Morgan & Riccio, 1998; Pear, 2001; Schwartz, Wasserman, & Robbins, 2002). The operant aspects of pain anxiety cognition may include: discriminative, motivational, reinforcing and aversive functions (Malott, 1989; Malott & Garcia, 1991). As a discriminative function, verbal behavior may serve as a contingency specifying stimulus or a rule setting the occasion for the occurrence of overt behavior (Poppen, 1989; Skinner, 1969). As an establishing operation (EO), the VB alters the relative strength of consequences affecting learning and performance related to a specific behavior. For example, the verbal response "My pain will get worse if I sweep the floor" will increase the relative strength of the negative reinforcer (nociception) for avoidance behavior (recumbent behavior). Cognitive restructuring interventions for pain management attempt to change the evocative influence of pain anxiety cognition as a covert EO. In contrast, behavior analytic interventions for pain management rearrange contingencies to activate and reinforce healthy overt behavior and teach overt pain management skills. Doing so alters the relative density of reinforcement for two concurrent operant response classes: adaptive, healthy behavior and maladaptive pain behavior. Behavioral Activation Treatment (BAT), based on the matching law, applied to depressed populations has been found to increase the frequency of targeted adaptive overt behavior and decrease non-targeted covert dysfunctional cognition (Jacobson et al 1996; Hopko, Lejuez, Ruggier., & Eifert, 2003; Hopko, Lejuez, & Hopko 2004). Given the similarities between depression and chronic pain, a purely behavior analytic intervention would seem to have merit. The purpose of this pilot study was to examine the effect of BAT on pain anxiety cognition with a fibromyalgia chronic pain patient.

Method

Participant

ZB, a 43-year-old female, with an 11-year history of chronic pain, received treatment. ZB was married and receiving disability payments due to chronic pain. Medical diagnoses included fibromyalgia, post-traumatic migraine headache, essential tremor, and sub-clinical irritable bowel syndrome. DSM-IV-TR diagnoses included major depression, pain disorder, and social anxiety. ZB was severely depressed (Geriatric Depression Scale-15 score = 14). In 1993, ZB suffered a rear-end automobile collision and subsequently developed neuromuscular and neurological symptoms. Depression pre-dated the collision but was exacerbated by the event. Neurosurgery was performed in 1996 to fuse cervical vertebrae and remove cranial bone and dura mater in the occipitalis area. Migraine headache frequency lessened following surgery but still occurred once per week for approximately 48 hours per episode. Current medication regimen was Vicodin 375 mg twice per day; Ibuprofen 800 mg four to six times a day, and Xanex 10 mg prn. Abortive migraine headache medication had been discontinued due to lack of benefit. Based on medical records, no medication changes had occurred for two months prior to taking part. Informed consent and consent to release of information was obtained prior to assessment and intervention.
Dependent variables

Pain interference rating (PIR). A 10 cm visual analogue scale (VAS) was used to measure pain interference each day. VAS measures of pain are recommended for use with younger adults and are valid, reliable and sensitive to treatment effects (Jensen, Turner, Romano, & Fisher, 1999; Turner, 1982).

Geriatric Depression Scale 15 (GDS-15). Self-reported depression was assessed using the GDS-15. It has been suggested that the GDS-15 be used when assessing depression with comorbid medical conditions. GDS-15 has been validated with younger adults and found to be strongly correlated with the original GDS-Long Form (Ferraro & Chelminski, 1996; Lesher & Berryhill, 1994; Meara, Mitchelmore, & Hobson, 1999). A cut off score of ≥ 6 suggests major depression.

Behavioral Relaxation Scale (BRS). The BRS is an objective, quantitative measure of relaxed behavior that employs a partial-interval direct observation measurement procedure (Poppen, 1998). Ten behaviors are observed and scored as relaxed or unrelaxed during successive one minute intervals. During the first 30 seconds of each interval, number of breaths is observed and recorded; during the next 15-seconds the remaining nine behaviors are observed and during the final 15-seconds the behaviors are recorded. Percent relaxed behavior is obtained by dividing the number of relaxed behaviors by the total number of observations multiplied by 100. The BRS has been found to be a reliable and valid measure of relaxed behavior, associated with reduced electromyographic activity, decreased motor disability, and increases in relaxation states of Physical Relaxation, Joy, Mental Quiet, Peace and Disengagement (Lundervold & Poppen, 2004; Poppen, 1998; Poppen & Schilling, 1983; Riefesel, Buermann, Talley, & Lundervold, 2005; Smith, 2001).

Pain Anxiety Symptom Questionnaire (PASS). The 40-item PASS (McCracken, Zaylor & Gross, 1992) was used to assess four domains of pain related anxiety: fear (F), escape/avoidance (E/A), cognition (C), and physiological (P). A six-item Likert scale is used to rate the magnitude of pain anxiety. The PASS has good reliability and validity with preliminary normative data with chronic pain patients.

Medication index (MI). Following the procedure described by Blanchard and Andrasik (1985), an MI score was calculated based on daily self-recording of type and dosing schedule of medication. An average daily MI was calculated by summing the products of the number of doses of a drug multiplied by its potency scale value.

Experimental Design

In certain conditions, an extended baseline phase may be inappropriate when the participant does not have the skill in the repertoire or there is no opportunity to respond (Cuvo, 1978). A third condition for delimiting baseline length is risk or immediate need for treatment. Severe depression meets condition number three. Given these conditions, we employed a mixed single subject research design comprised of a repeated pre-post training assessment design and non-concurrent multiple baseline design across relaxed positions to evaluate the immediate effect of intervention and assess generalization of relaxed behavior to the upright position (Bloom, Fisher, & Orme, 2006; Watson & Workman, 1981).

Step-like change in the dependent variable from pre- to post-training within and between sessions suggests a functional relation between dependent and independent variable. A primary limitation of the repeated pre-post training design is limited number of true baseline observations. By including time lagged observation of behavior across relaxed positions (reclined, upright), this weakness was lessened and allowed assessment of generalization.
Procedure

Diagnostic and Behavioral Interview A rationale for multimodal assessment was provided. Two sessions were devoted to interview assessment. A semi-structured diagnostic interview was conducted by the first author (DAL) was followed by a structured chronic pain behavioral interview. Self-report questionnaires for depression and pain anxiety were completed. ZB also received instruction in recording pain interference, behavioral activities and medication.

Pre-training assessment At the second session, baseline assessment of relaxed behaviors occurred. A five-minute adaptation condition was conducted prior to assessment of relaxed behaviors in the reclined position and ZB was then instructed to “relax on her own”. A 5-minute pre-training observation of relaxed behavior was conducted. In later sessions, observation of both reclined and upright relaxation was conducted.

Behavioral Activation Treatment (BAT) BAT, a treatment package based on the matching law (Herrnstein, 1961), is comprised of Behavioral Relaxation Training (BRT), visual feedback (i.e., graphical depiction of performance data), shaping performance of valued behavioral activities, and praise. BAT aims to increase the relative ratio of reinforcement for healthy, overt behavior while concurrently decreasing the density of reinforcement for unhealthy behavior (Noll, 1995). For example, engaging in relaxed behavior decreases the aversive experience of pain (i.e., increased density of negative reinforcement for healthy behavior). Through identification and scheduling of valued behavioral activities, the ratio of positively reinforcing events is increased. Activity-relaxation cycles also were employed to maintain a dense schedule of negative reinforcement and prevent over-activity. Visual performance feedback was provided each session in relation to PIR, depression and BRS scores. No visual feedback was provided for pain anxiety. No direct cognitive restructuring was conducted (Turk, Meichenbaum, & Genest, 1983).

In the first treatment session, a biobehavioral conceptualization of chronic pain was provided, describing gate control theory (Melzak & Wall, 1965; Melzack, 1999), deconditioning, loss of valued activities, and their relationship to mood. Similarly, emphasis was placed on self-management of pain rather than its elimination. BRT was presented as a means to “close the pain gate,” a self-management procedure to be employed as needed and as a means to improve quality of life. BRT was trained according to Poppen (1998) with each BRT session lasting approximately 15-20 minutes. Immediately after BRT a post-training assessment was conducted in the same manner as the pre-training assessment. Upon completion of the post-training assessment, other components of BAT were implemented. Both reclined and upright BRT were eventually trained in the same session. Twelve sessions of reclined and upright BRT were provided.

Increasing contact with valued activities also was described in the context of improving quality of life and mood. An expectation of treatment benefit regarding decreased pain interference and improved depression was presented. No expectation regarding change in pain anxiety was presented. To increase behavioral activation, the Valued Behavioral Activity Checklist was completed and rank ordered from 1-15 (easy to difficult to complete). Initially, homework for behavioral activation targeted the easiest tasks. After successful mastery of those activities and managing pain, the next set of five activities was introduced. Homework consisted of engaging in BRT every two hours, activity-relaxation cycles, recording performance of assigned valued behavioral activities, daily rating of PIR and medication usage.

Post training assessment At the end of instruction in BRT, a 5-minute post-training assessment was conducted. ZB was instructed to “relax on your own” and direct observation of relaxed behaviors was conducted as in pre-training assessment.
**Follow up** A three month follow was conducted. Assessment of reclined and upright relaxed behavior, daily PIR, depression and pain anxiety were obtained.

**Results**

Independent observers assessed reliability of BRS observations on 28% of observations of relaxed behavior (range 74%-90%; mean 84%). Reliability was calculated by dividing the number of agreements by the number of agreements and disagreements multiplied by 100.

Reclined BRS scores systematically improved following training. (See Figure 1). At the initial pre-training assessment (true baseline) reclined BRS was 48% relaxed. Following reclined BRT an immediate increase in the post-training assessment BRS score (82%) was observed. Systematic step-like increases from pre- to post-training assessments within and between sessions was observed, lending support to the interpretation that change in BRS scores were functionally related to the intervention. Baseline assessment of upright relaxation indicated generalization from reclined to upright position, though suboptimal optimal performance (70% relaxed). With implementation of upright BRT, performance increased above baseline. While rate of acquisition was slower, step-like changes in pre-post-training assessment BRS scores were again observed. Relaxation skills were maintained at follow up (86% upright; 100% reclined).
Figure 1: Percent relaxed behavior in reclined and upright positions.

Figure 2 displays pain anxiety (PASS) scores. As can be seen, C and P were significantly elevated at baseline with E/A and F much less so. Following intervention P scores immediately dropped and continued to do so throughout BAT. Meaningful change in E/A and F occurred by the third BAT session with increasingly lower scores being obtained at nearly each session. The course of change for C corresponded most closely to E/A. Significant change in C occurred by the fourth session of BAT with further significant decreases occurring over the last four sessions. By the end of intervention, all pain anxiety scores were within normative levels for chronic pain patients (McCracken et al., 1992). Further decline in pain anxiety scores occurred at follow up.

Figure 2: PASS subscale scores across phases.

PIR improved more than 100% from baseline levels (baseline mean = 6.4; end of treatment (last five observations = 2.08). (See Figure 3). Gradual improvement in PIR ratings occurred following exacerbation in pain due to migraine during the first nine days of intervention. Consistent improvement in PIR continued following this initial disruption. Results were maintained three months post intervention. Related to PIR is medication usage. MI was calculated based on week of data collected prior to implementation of BAT. Baseline, end-of-intervention, and follow up MI scores were 10.71, 8.42, and 20.1. Medication regimen was changed between end-of-intervention and follow up.
Figure 3: Daily pain interference rating (PIR) across phases.

Two consecutive baseline measures of depression using the GDS-15 were obtained with near maximal scores obtained on each observation. (See Figure 4). A slight decline in GDS-15 score immediately occurred following the first session of BAT. Larger systematic decrements in ratings of depression occurred over the course of intervention. The last four self-ratings of depression were within normal limits. Results were maintained at follow up.
Discussion

A behavior analytic pain management intervention based on the matching law (Herrnstein, 1961) was found effective in decreasing pain anxiety cognition, pain interference, and depression. BAT targeted overt behavior with the aim of altering the relative ratio of reinforcement for healthy behavior versus unhealthy pain behavior. Pain anxiety cognition changed without direct cognitive restructuring intervention. Medication usage also declined from baseline levels. Unfortunately, a change in medication after end-of-intervention confounds interpretation of follow up results. Data reported are consistent with Hopko et al (2004) and Jacobson and colleagues (Jacobson et al., 1996) who reported BAT for depression was effective in altering dysfunctional depressive verbal behavior without direct intervention. Inspection of Figure 2 indicates that pain anxiety cognition covaried most closely with escape/avoidance behavior. These data lend support to the analysis that pain anxiety verbal behavior is an EO for pain avoidance behavior. Through direct contact with the contingencies the relative evocative strength of pain anxiety verbal behavior as an EO diminishes. While the matching law provided the theoretical basis for BAT, no direct assessment of response or reinforcement rate was obtained. Furthermore, the matching law was applied to response classes of differing topography and contingencies. Research is needed to systematically assess reinforcement rates for healthy behavior and pain behavior as they relate to applications of the matching law and BAT. Lack of a structured psychiatric diagnostic interview and
reliability of diagnosis is problematic. While not a primary concern among behavior analysts, reliable psychiatric diagnosis is important among other behavioral health disciplines. Results of this pilot study are encouraging but further research using more rigorous assessment procedures and experimental designs is needed. Immediate step-like change in BRS scores suggests that BRT was responsible for change in relaxed behavior. Concurrent observation of upright relaxed behavior did not occur with all reclined observations; however, when observations were conducted concurrently upright BRS scores were stable and systematically increased following BRT in the upright position. Clinically meaningful decreases in PIR only occurred after implementation of upright BRT.

Few studies have assessed or reported generalization of relaxed behavior (Poppen, Hanson & Ip, 1988). In part, this may be due to the lack of objective measures of relaxed behavior or simple failure to assess generalization. From this perspective, the obtained results are important. The high degree of generalization in upright relaxed behavior may be due to the brief duration between pre-post observation intervals for reclined relaxed behavior. While significant generalization occurred performance was suboptimal. With implementation of upright BRT, substantial improvement in upright relaxed behavior occurred.

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A Treatment Study of Mode Deactivation Therapy in an Out Patient Community Setting

Jack A. Apsche & Christopher K. Bass

Abstract

This paper is an outpatient replication of Apsche, Bass, Jennings and Siv (2005) work which examined the effectiveness of Mode Deactivation Therapy (MDT) on adolescent conduct disordered males in an inpatient therapeutic setting. This research compared the effectiveness of MDT and Treatment as Usual (TAU) as treatments on adolescents with conduct and personality disorders in an outpatient setting. The results showed that MDT was superior in reducing overt aberrant behavior, including physical aggression and psychological distress as measured by the Achenbach Child Behavioral Checklist.

Keywords: Mode Deactivation Therapy (MDT), Treatment as Usual (TAU), Outpatient, Personality disordered, Conduct Disordered.

Introduction

The prevalence of youth earning the conduct disorder diagnosis is on the rise. Given the prevalence of conduct disorders and its major contribution to juvenile anti-social behavior, societal violence, sexual violence and delinquency, there is an urgent need for empirically based treatment methods for such youth.

There have been several interventions which have been implemented to reduce antisocial behavior in disruptive disorders. Because many clinicians conduct therapy in more eclectic fashion, the problem we encounter is identifying generalize-able efficient treatments which are effective across environments. Brestan & Eyberg (1998) conducted a review of treatments for children and adolescents. They identified 82 studies carried out between 1966 and 1995 involving 5,272 youth. Of the 82 studies, they discovered that many were not well-established with empirical validation and many more were not probably efficacious treatment. Another problem we face is identifying a comprehensive treatment approach which has suitable reliability and external validity. Unlike treatments from clinicians who worked primarily inpatient using structured empirically validated treatments, the finding of empirically validated studies which examined outpatient therapeutic practices with conduct disordered adolescents was scarce. While Kazdin and Weisz (2003) delineate some evidence-based treatment practices for children with Conduct Disorder, the same has been not achieved for adolescents over 14 years of age. Brestan and Eyberg found two psychosocial treatments. Both interventions were directed at training parents. Despite the misdirection of treatment both succeeded in reducing problem behaviors. The two treatments were a parent training program based on the manual Living With Children (Bernal et al., 1980) and a videotape modeling parent training (Spaccarelli et al., 1992). While both treatments were effective, they were more psycho-educational programs geared toward parents rather than stand alone treatments for the adolescent with conduct related disorder. Another promising approach for the treatment of conduct disorder is multi-systemic therapy, an intensive home- and family-focused treatment that has been empirically validated. Multisystemic Treatment has shown promise for antisocial youth (Henggeler, Schoenwald, Borduin, Rowland and Cunningham, 1998) and for adolescent sex offenders (Swenson, Henggeler, Schoenwald, Kaufman, and Randall, 1998), but it requires a resource-rich combination of services, one of which is psychotherapy, and it is not a realistic option for most
such youth. Cognitive behavioral therapy (CBT) is widely employed in the treatment programs for behaviorally disordered youth across many settings and is frequently used with aggressive youth. But there are clear limits to the effectiveness of CBT in the treatment of personality disordered clients, especially borderline and narcissistic types (e.g., Young, Klosko and Weishaar, 2003).

Apsche and his colleagues developed an advanced form of cognitive behavioral treatment called “Mode Deactivation Therapy” (Apsche and Ward Bailey, 2004a) in order to simultaneously address the multiple problem issues of conduct- and personality disordered youth, while also accommodating the particular defensive characteristics of the adolescent. Mode Deactivation Therapy (MDT) has been applied to adolescent sex offenders and mentally ill adolescents alike. MDT is an evidence-based treatment that blends key elements from Beck’s theory of “modes” (Beck, 1996); traditional Cognitive Behavioral Therapy and Schema Therapy (Alford and Beck, 1997; Beck and Freeman, 1990); Dialectical Behavior Therapy (Linehan, 1993); and Functional Analytic Behavior Therapy (Kohlenberg and Tsai, 1993; Nezu, Nezu, Friedman and Haynes, 1998).

The present study was designed to assess the effectiveness of Mode Deactivation Therapy (MDT) as compared to Treatment As Usual (TAU) in the treatment of conduct disordered and personality-disorder youth with problems of aggression in an outpatient environment. The therapist of the TAU group in the community identified themselves as mostly eclectic as using “what works.” Another goal is to add to the growing body of literature of empirically validated treatments which serve the adolescent diagnosed with conduct disorder.

**METHOD**

**Sample Characteristics**

A total of 13 male adolescents participated in the study. All subjects were referred to a private outpatient practice for the treatment of aggression. Referrals came from County Juvenile Justice and the Department of Youth and Family Services. In this study, subjects were randomly assigned to one of the two treatment conditions at the time of admission based on available openings in the caseload of the participating clinicians. The two treatment conditions showed similarity in terms of the frequency of Axis I and Axis II diagnoses, age, and racial background. To ensure consistency in the delivery of the two respective treatments, therapists were specifically trained in the one of the two treatment curriculums/methods. The average length of treatment across conditions was 6 months.

**Condition one: Treatment As Usual (TAU)** A total of six male adolescents were assigned to the condition. The group was comprised of 1 African American, 5 European Americans with an average age of TAU 16.1. The principal Axis I diagnoses for this group included Conduct Disorder (2), Oppositional Defiant Disorder (4), and Post Traumatic Stress Disorder (4). Axis II diagnoses for the group included Mixed Personality Disorder (4), Borderline Personality Disorder (1).

**Condition two: Mode Deactivation Therapy (MDT):** A total of seven male adolescents were assigned to the MDT condition. The group was comprised of 2 African Americans, 5 European Americans with an average age of 16.4. The principal Axis I diagnoses for this group included Conduct Disorder (1), Oppositional Defiant Disorder (3), Post Traumatic Stress Disorder
(4), and Major Depressive Disorder, primary or secondary (5). Axis II diagnoses for the group included Mixed Personality Disorder (4), Borderline Personality Traits (3). The MDT condition used the Mode Deactivation Therapy which is built on the mastery system for youngsters. They move through the workbook at the rate of learning that accommodates their individual learning style. The system is designed to allow the youngster to experience success, prior to undertaking more difficult materials. Initially, the individual needs to be aware of his negative verbalizations and negative thoughts, and record them in his workbook. Through the Case Conceptualization, workbook, and audiotapes, the system allows the youngster to systematically address the underlying conglomerate of personality disorders as well as, the specific didactics necessary, anger/aggression.

Measures

Three measures were included in this study: School disciplinary referrals, Parent Report and The Child Behavior Checklist (CBCL; Achenbach, 1991).

School records were used to assess disruptive and aggressive behavior in school. Behaviors which were assessed included school suspension, physical altercation, verbal aggression toward peers/others.

The Parent Report Record is a measure used to record aggressive behavior at home. Behaviors recorded included; Sibling altercations, Anger outbursts, and direct intentional disobedience.

The CBCL is a multi-axial assessment designed to obtain reports regarding the behaviors and competencies of 11- to 18-year-olds’. The means and standards are divided into three categories: internalizing (which measures withdrawn behaviors, somatic complaints, anxiety and depression), externalizing (which measures delinquent behavior and aggressive behavior), and total problems (which represent the conglomerate of total problems and symptoms, both internal and external).

RESULTS

Child Behavior Checklist

The CBCL means and standards are divided into three categories: internalizing, externalizing, and total problems. There was no significant difference in the pretest means between MDT (Internalization = 73.5, Externalization = 75.5 and Total = 74.5) and TAU (Internalization = 73, Externalization = 75 and Total = 74).
The post test means showed a statistically significant difference in mean scores. In comparison to the TAU group, the MDT group was superior in reducing all three categories (MDT: Internalization= 48.5, Externalization= 43.5 and Total= 42; TAU: Internalization=72, Externalization= 70 and Total= 71)

The Parent Report Record

Results on the Parent Report Measure showed no significant difference in the pretreatment recordings of Sibling alterations (SA), Anger outbursts (AO), and direct intentional disobedience (DIB) (MDT: SA=5 per week, AO= 21 per week, DIB= 10; TAU: SA= 4 per week, AO= 22 per week and DIB= 11).
Figure 3. The Parent Report Record: Pre treatment mean scores for TAU and MDT groups

Figure 4. The Parent Report Record: Post treatment mean scores for TAU and MDT groups

Post treatment results on the Parent Report Measure showed a significant difference in the recordings of Sibling altercations (SA), Anger outbursts (AO), and Direct intentional disobedience (DIB) (MDT: SA=5 per week, AO= 21 per week, DIB= 10; TAU: SA= 4 per week, AO= 22 per week and DIB= 11).

School Records

School records were kept by the school’s Principal Discussion Office. The forms tracked aggression and school suspensions.
Results demonstrate that MDT was superior to TAU in all categories in this study. Results initiate that MDT was statistically significant over TAU in reducing aggressive behavior, defiant behavior, school suspensions, as well as, reducing symptoms of psychological distress as measured by the CBCL. Symptoms such as anxiety and depression were reduced by MDT while some increased by TAU.

Reports by parents and School Administration reported that the behaviors of the adolescent in the MDT showed significant improvement. The TAU group received negative reports by parents and School Administration.

Discussion

The results suggest that MDT might be an effective treatment in community outpatient settings. They also suggest that in this limited study and setting that MDT was more effective than TAU or “eclectic” approach, the “using what works”
This treatment research was the first of its kind implementing MDT in a community outpatient setting. All previous studies were in residential inpatient settings. Apsche developed MDT for Conduct Disordered and Personality Disordered adolescents with physical and sexual aggression in Residential settings.

This study, although limited in scope and sample size suggests that with further study and modifications MDT might be a promising treatment in community outpatient settings. These community settings are often the first or last opportunities for troubled adolescents prior to being sent to residential settings, many as long as 18 months. Therefore MDT should be considered as a treatment of these adolescents prior to commitment to years in a residential treatment center.

It is also suggested that MDT is completely inter-gradable with other therapies such as, Multisystemic Treatment Therapy and Systems Family Therapy. The authors hope that MDT is tested in a larger, randomized study to further test with efficiency.

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Post-trauma: Is evidence-based practice a fantasy?

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Abstract

Trauma, bereavement, and loss are universal human experiences. Much has been written about the process that the bereaved go through following the loss of a loved one. Recent events such as 9/11, earthquakes in Turkey, genocides in Rwanda, community conflict in Northern Ireland, and the Asian Tsunami Disaster have drawn unprecedented public attention to the subject of traumatic bereavement. Increasingly, it is recognised that while most people are able to cope with loss generally by eventually restructuring their lives, those bereaved in traumatic circumstance often find it extremely difficult. As a consequence, a plethora of interventions have emerged, however, to-date, little is know about their actual effectiveness in helping the bereaved. With the emphasis of health and welfare professions on evidence-based practice (EBP) greater than ever and a raising awareness of accountability as key element of ethical practice, the call for EBP in traumatic bereavement is compelling. Using examples from work carried out in Northern Ireland, we look at the backdrop of the issues involved, describe some of the most commonly used therapeutic interventions, and explore the possibility of evidence-based practice.

Key words: evidence-based practice; bereavement; Northern Ireland

Introduction

On September 11, 2001 the death toll of the attacks on the Twin Towers reached 2,752 (CNN, 2003). On December 26, 2004 the Asian Tsunami disaster claimed an estimated 283,000 lives (Fairfax, 2005). During April-June 1994, the Genocide in Rwanda caused at least 800,000 deaths, and this is recognised as a conservative estimate (CTV, 2004). The official death toll of the Turkish earthquake on August 17, 1999 exceeded 3,700 (WSWS, 1999). Community conflict in Northern Ireland caused the death of more than 3,600 people (Fay, Morrissey, & Smyth, 1999). These are just some examples of recent man-made or natural disasters that caused large-scale traumatic death. Intensive cover on television and the Internet has meant that the world has taken part in these events in an unprecedented fashion and in near real time and thus, today there is a previously unmatched awareness of the physical and psychological effects of traumatic death, including Post Traumatic Stress Disorder (PTSD).

Under normal circumstances, the prevalence of PTSD is estimated at about 8% of the adult population, but following a traumatic event about 33% to 50% of the victims experience PTSD (Pfefferbaum, 1997). Despite this, it has been acknowledged that literature and research with regard to psychological effects of violent death is “early and meagre” (Violent Death Bereavement Society, 2005), mainly anecdotal, and that few studies include objective measures on the management and effectiveness of interventions (Jordan & Neimeyer, 2003; Kato & Mann, 1999; Litterer Allumbaugh & Hoyt, 1999; Schut, Stroebe, Van Den Bout, & Terheggen, 2001). Using Northern Ireland as a case in point, in this paper we first examine research concerned with the impact of trauma, examine social policy measures regarding victims’ issues, and look at voluntary sector provision. We then explore intervention strategies that have been developed to help people who have experienced trauma and look for available evidence of treatment effectiveness.
Trauma in Northern Ireland

Northern Ireland has lived in a situation of persistent civil unrest and political violence since the late 1960s. Over 3,600 deaths, mostly young male adults, have meant that over 7,000 parents have lost a child, over 14,000 grandparents have lost a grandchild, and an estimated 3,000 people have lost a spouse, on the whole, about 115,000 people have lost a close relative (Dillenburger & Keenan, 2001). In addition, over 40,000 people have suffered injuries, thus issues related to trauma, victimhood, and therapeutic interventions are very much at the forefront of debate (Dillenburger, Fargas, & Akhonzada, 2005a).

In the 1970s, psychiatrists argued that people affected by community violence generally reacted with astonishing resilience to the continuing violence (Fraser, 1973). Overall, data collected during this period showed a relatively low impact of trauma on psychological health. For instance, there was no increase in psychiatric patient numbers (McCreary, 1976) and family doctors dealt with minor symptoms. It was generally concluded that the majority of people dealt effectively with community violence and trauma either through denial (Cairns & Wilson, 1984) or intra-community support (McCreary, 1976).

Early reports that showed a different picture were largely ignored. For example, the study of survivors of the Remembrance Day bomb in Enniskillen in 1987 (Curran, Bell, Murray, Loughrey, Roddy, & Rocke, 1990) had shown that six months after the incident nearly 50% of people who had witnessed the bomb showed symptoms of post-traumatic stress disorder (PTSD). Dillenburger (1992) showed that by 1985, over two thirds of the violently bereaved widows in her sample suffered significant psychological health problems, with a mean score of 9.8 on the General Health Questionnaire (GHQ; Goldberg, McDowell, & Newell, 1996) and therefore, being classified as cases requiring psychological assessment even 10 years after their loss.

It was not until the beginning of the Peace Process in the mid 1990’s, more specifically the Good Friday Agreement in 1998, that substantial attention was paid to researching the impact of trauma on people in Northern Ireland (Figure 1). Previous evidence of significant long-term effects and psychological suffering now was confirmed. The Cost of the Troubles Study (COTTS; Fay, Morrissey, Smyth, & Wong, 1999), one of the main initiatives, used two measures of experiential intensity of trauma:

1 - severe experience; exposure to at least three of the following events: being close to a bomb explosion, witnessing a shooting, a neighbour killed, seeing people killed or seriously injured, having to leave home permanently;

2 - very severe experience; exposure to any two of the following events: a close friend killed, being physically attacked, being injured in a bomb explosion or in a shooting, a member of the immediate family injured or killed and another relative killed.

COTTS considered two measures of impact intensity of trauma:

1 - severe impact of trauma; respondents agree on at least two of the following conditions: The trauma caused me a great deal of distress and emotional upset; made violence more a part of my life; left me feeling helpless; provoked strong feelings of rage in me.

2 - very severe impact of trauma; respondents agree to any of the following statements: The trauma completely ruined my life; damaged my health; caused me to lose loved ones through death; physically damaged me/my family.
About half of a sample of 1348 Northern Irish residents reported that the trauma of the Troubles had a significant impact on their lives, presenting with symptoms of emotional distress, including sleep disturbance (Smyth, 1997). The relationship between degree of experience and impact however is not linear (Morrissey & Smyth, 2002). The majority of those who reported direct experience with community violence declared that the trauma had no major impact on their lives, requiring only some adjustments (Figure 2). Others, however, found that a positive and graded relationship existed between the extent to which people are affected by community violence and psychological ill-health (O’Reilly & Stevenson, 2003).

**Figure 1:** Year of formation of groups (adapted from Kelly & Smyth, 1999).

**Figure 2:** Impact of the Troubles by Individuals’ Experience (adapted from Morrissey & Smyth, 2002, p. 121)
Clearly the experience of trauma related physical and psychological injury and bereavement is much more complex than previously thought. Trauma is not a discrete experience. For example, in Northern Ireland political violence varied considerably across time and space (Fay, Morrissey, & Smyth, 1999) with periods of intense violence bringing about many death, explosions, and shootings, while during other periods relative calmness prevailed. On the other hand, some areas, such as inner city Belfast, experienced consistently high rates of death and violent incidents, while other areas such as small villages along the coast were relatively peaceful throughout the Troubles. This uneven demographic distribution of community violence undoubtedly affects psychological health outcome. Per thousand inhabitants, high intensity areas experienced over seven trauma-related deaths, medium intensity areas between two and seven deaths, and low intensity areas experienced fewer than one death. COTTS found that people living in high intensity areas suffered from more severe effects, 28% had their home attacked and one third had painful memories, compared to one fifth of those living in medium intensity areas (Fay, Morrissey, Smyth, & Wong 1999).

Clearly then, over thirty years of community violence have not constituted a homogeneous experience for all of the people. Each person has had different and unique experiences that, in turn, produced different impacts and effects on their lives and health. Consequently, it has been argued that a great number of different realities exist (Darby, 1986). For example, psychological health and PTSD for relatives of those who died on Bloody Sunday in 1972 are prevalent even 25 years after the incident (Hayes & Campbell, 2000), and 30 years after their husbands’ violent death widows show significantly higher levels psychological problems than would be expected of otherwise bereaved widows (Dillenburger & Keenan, 2001).

At the same time, not everybody responds in the same way to the same traumatic experience, that is to say, similar experiences do not cause identical effects in different people. How people cope with bereavement and other traumata depends on the context in which people find themselves. While some people are well supported and may experience adversarial growth (Joseph & Lindley, 2004), others find it difficult to put their lives back together after a traumatic incidence.

The way in which people cope with community violence depends on vulnerability as well as protective factors. For example, there are correlations between psychiatric morbidity and social deprivation, social isolation, and exposure to violence (McConnell, Bebbington, McClelland, Gillespie, & Houghton, 2002), and psychological vulnerability increases if children, friends, relatives, or oneself are in danger of being physically harmed (Moynahan, 2001). Protective factors include family and social support and adequate service provision.

**Interventions**

During early phases of community violence there was a significant lack of structured support for those affected by violence in Northern Ireland (Darby & Williamson, 1978). However, since the ceasefires, a rapid growth of statutory as well as voluntary services has been experienced (Deloitte & Touche, 2001; Kelly & Smyth, 1999; Morrissey & Smyth, 2002). While some of these groups are at an ‘emerging capacity stage’, others form ‘umbrella groups’ that support smaller emerging groups, or are considered ‘parallel providers’ (i.e., parallel to statutory service providers) (Deloitte & Touche, 2001). Overall, voluntary community groups are now the main service providers for victims and survivors (Smyth, 1997). These developments are a reflection of a shift in government policy and the beginning of a process of recognition of victim’s issues as priority in Governmental policy agenda (Blooomfield, 1998). Only recently, the
term *victim* was officially defined as follows: “The surviving physically and psychologically injured of violent, conflict-related incidents and those close relatives and partners who care for them, along with those close relatives or partners who mourn their dead” (Reshape, Rebuild, Achieve (RRA), 2002, p. 1) and funding was made available to support victims of violence.

Yet today, service provision still is limited and patchy, and while 22% of voluntary groups offer a wide range of services, only 16% offer structured counselling, therapeutic services, or emotional support, and 24% offer services only to particular categories of people, e.g., women, young people (Kelly & Smyth, 1999). More importantly, despite the fact that nearly all the groups are inclusive on paper, in reality, many of them have political and/or sectarian motives, and at times, adapt their paper work in line with funding requirements (Hamber, 2003; Kulle, 2001).

Several different kinds of interventions are used to address psychological and physical consequences that can be associated with trauma and community violence. Traditionally, the emotional aspect of a grief process was the focus of interventions principally based in psychoanalytic theory. Anger, depression, shame, and guilt were used as indicators for understanding and evaluating short- and long-term bereavement outcome as well as complicated forms of bereavement (Rando, 1993). Today, intervention strategies based on cognitive-behavioural theories are frequently utilised (Malkinson, 2001). Most recently, behaviour analytic concepts of bereavement have been developed that address private and public behaviours within a functional, contextual analysis (Dillenburger & Keenan, 2001; in press).

On the whole, interventions offered to people who experienced trauma and community violence can be largely categorised into five groups:

1) *Psychology-based*: Intervention carried out by professionally trained and accredited therapists who work from a clear psychological, theoretical, and methodological basis. In the main these are either psycho-analytically, humanist, or behaviourally oriented;
2) *Medicine-based*: Intervention based on psycho-pharmaca or alternative medicine, including homeopathy.
3) *Philosophy-based*: Interventions carried out from a certain philosophical stance, such as Eastern Philosophy (meditation, yoga, aroma therapy, reflexology, shiatsu), or religion (prayer, worship);
4) *Education-based*: Interventions primarily concerned with education, such as critical incident debriefing, advice and information giving;
5) *Community-based*: Interventions based on initiatives from an individual or a community groups, such as self-help projects, befriending, respite, group holidays, often initiated by people who have experienced bereavement themselves.

**Evidence Based Practice**

Little is known about the effectiveness of services offered by the community sector (Figure 3; Dillenburger, 2001; Smyth, 2001), mainly because of problems with agreement on evaluation methods, content to be evaluated, outcome measures, theoretical perspectives, heterogeneity of type of interventions, and complex political contexts (Forte, Hill, Pazder, & Feudtner, 2004; Lavoie, 1990).
Psychology-based interventions

The evidence for psychology-based interventions in bereavement varies considerably. For example, with regard to psychoanalytic or psychodynamic therapies (Fonagy, 2000; Milrod et al., 1997; Shapiro et al., 1995; Zimbardo, 2005), a comprehensive review of outcome studies conducted by Research Committee of the International Psychoanalytical Association showed that there is no clear evidence that psychoanalysis is effective when compared to either alternative treatments or placebos (Fonagy, 2000, p.622). Similarly, while there are some qualitative reports and preliminary evaluations regarding systemic therapies (Boss, Beaulieu, Wieling, Turner, & LaCruz, 2003), there is no reliable quantitative research evidence of its effectiveness. Client-centred bereavement counselling has found favour with a large number of agencies and is probably one of the most widely used approaches for the treatment of the bereaved (Zimbardo, 2005). However, ultimately, there is not much rigorous research evidence of its effectiveness either (Cutcliffe, 2004; Doermann, 2002).

Probably the best evidence of effectiveness comes from behaviour therapy. There are research findings that suggest that a number of different behavioural protocols, including Rational Emotive Behaviour Therapy (REBT), Dialectic Behaviour Therapy (DBT), Eye Movement Desensitization and Reprocessing (EMDR), Solution Focussed Therapy; Motivational Interviewing; Task Centred Work (Follette, Ruzek, & Abueg, 2001) can be effective in bereavement and trauma related treatment (AABT, 1991; Gillespie, Duffy, Hackmann, & Clark, 2002; Gray & Litz, 2005), however availability of these services varies widely across the sector.

**Figure 3:** Services provided by voluntary groups in Northern Ireland (Dillenburger, Fargas, & Akhonzada, 2005c)
**Medicine-based intervention**

The use of psycho-pharmacological medicine may be useful in the early phases of grief when shock is intense and pain acute (WHO, 2005). When medications are used to relieve acute anxiety and distress in a crisis, there is some evidence that they can provide a therapeutic relief to the bereaved by slowing central nervous activity and providing a temporary respite from severe psychic pain (Green & Goldberg, 1986). Herbal medicines or homeopathy can relieve the severity of emotions shortly after the traumatic bereavement and, as long as they are not used too long or as substitute for actually dealing with the loss, there is no evidence that they do harm. However, generally, adults are advised to avoid medication, and the use of medication for children is not recommended at all (WHO, 2005).

**Philosophy based intervention**

There is a very wide range of complementary treatments based on Eastern philosophy, such as acupressure, acupuncture, aromatherapy, autogenic training, biorhythms, massage, meditation, neuro-linguistic programming, reflexology, reiki healing, shiatsu, yoga (Chris-UK, 2005). While subjective reports of wellbeing abound, there is very little quantitative evidence of effectiveness (Ernst, 2000).

Religious funerals are the main way of lying to rest the body of the deceased. Across cultures, religious leaders contend that pastoral interventions can weaken the effects of PTSD (Makhale-Mahlangu, 1996; Weaver, Smith, & Larson, 2005), however there is no scientific evidence of effectiveness of interventions based on religion (Mantala-Bozos, 2003).

**Education oriented intervention**

Education based interventions are used to disseminate information about the loss, explaining the usual response to trauma, suggesting coping strategies, offering practical, and financial help. Oftentimes, these interventions are very welcomed by the bereaved, who do not know how to respond in a traumatic situation, what to do next, and require practical help, such as making a telephone call to friends and relatives, or need help to realise that their response is normal and expected, given the experience they are going through (Dillenburger, 1992).

One educational approach that is more structured than most is Critical Incident Debriefing (CISD). CISD is a generic protocol used often by briefly trained practitioners, originally developed to mitigate stress for emergency staff. There is some anecdotal evidence to suggest that CISD may lead to symptom mitigation (Hiley-Young & Gerrity, 1994) however, a recent review of random controlled trials found evidence that CISD actually had detrimental effects (Hall, 2000).

**Community-based intervention**

Most people who have experienced trauma do not require specialised mental health interventions, what they need is community and family support and contact networks (Caserta & Lund, 1993; Gilligan, 2003; Kyrrouz & Humphreys, 1997; Marmar, Horowitz, Weiss, Wilner & Kaltreider, 1988; Sanders, 1989), such as self-help group, befriending, respite, group holidays, or weekend breaks (Smyth, 2001). However, there is no clear evidence of the benefits of these interventions (Bradshaw & Haddock, 1998; Harris, Brown, & Robinson, 1999; Heslop, 2005; Mohr, 2004; Taggart, Short, & Barclay, 2000).
Conclusion

People who have experienced traumatic loss often require some help to cope. In this paper we argued that to-date, there is not enough structured reliable evidence of effectiveness for almost all of the community based approaches that are commonly used to help those who encounter complications in the bereavement process.

More worryingly, while there is limited evidence of the benefits of some kinds of intervention, most studies have found intervention to be on the whole ineffective (Barrett, 1978; Polak, Egan, Vandebergh, & Williams, 1975; Walls & Meyers, 1985). Even more disturbing are findings reported at the British Psychological Association Conference (Hall, 2000) and confirmed by Guerin (2001) that the most common forms of therapy for trauma victims might actually make people worse in some circumstances.

Against this background, an expanding victims’ agenda has been developing not only in Northern Ireland (Gilligan, 2003). The rise of self-help groups is developing into a thriving victims industry and the need for evidence of effectiveness of services offered by these groups is undeniable. This call is not new. Deloitte and Touche (2001) as well as NICE (2004) demanded rigorous effectiveness research on trauma-focused psychological interventions including evidence of cost effectiveness. Recent research efforts are addressing this issue in Northern Ireland (Dillenburger, Fargas, & Akhonzada, 2005b), however until this happens internationally, on a large scale for all services, evidence based practice in bereavement remains a fantasy.

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Critical Factors in Mental Health Programming
For Juveniles in Corrections Facilities

Lee A. Underwood, Annie Phillips, Kara von Dresner and Pamela D.Knight

Abstract

Juveniles with mental health and other specialized needs are overrepresented in the juvenile justice system, and while juvenile corrections have not historically provided standardized and evidence-based mental health services for its incarcerated youth, the demand is evident. The reality is that juveniles with serious mental illness are committed to youth corrections facilities and justice systems generally do not have the capacity to provide effective mental health care. However, juvenile corrections are aware of the serious refractions involved and are exploring effective interventions. This involves examining the critical components of treatment and implementing promising youth correction programs for juveniles who are incarcerated. The authors review critical treatment factors involved in the mental health care of youth and provide recommendations to the field to further develop promising institutional programs.

Keywords: Juvenile, Mental Illness, Dialectical Behavior Therapy (DBT), Mode Deactivation Therapy (MDT), Family Integrative Transition (FIT), Aggression Replacement Training (ART), Thinking For a Change (TFAC), Motivational Enhancement Therapy (MET)

Introduction

Juvenile offenders with mental illness are a serious concern for juvenile correctional systems. There has been a steady increase of this population throughout the decade of the nineties (Teplin & McClelland, 1998; Timmons-Mitchell, et al., 1997). In 2003 about 2.3 million youth under the age of 18 were arrested and over 130,000 were placed in detention and juvenile correctional facilities (Cocozza, Trupin, & Teodosio, 2003). Concurrently there has been a significant increase in the number of juvenile offenders who have been diagnosed with mental illnesses and substance use disorders (Cocozza, 1997; Faenza & Siegfried, 1998; Libert & Speigler, 1990; Timmons-Mitchell, Brown, Schulz, Webster, Underwood, & Semple, 1997; Teplin, Abram, McClelland, Dulcan, Mericle, 2002; Villani, 1999 & Wasserman, Ko & McReynolds, 2004). Between 50 to 75 percent of all juvenile who enter the justice system has diagnosable mental health issues (Coalition for Juvenile Justice, 2000).

The minority population in the juvenile justice system has gone unnoticed. Juvenile offenders who are at risk to maltreatment and negligence among those with mental health disorders are females and African-Americans. Females in the justice system have had their treatment needs overlooked and minimized. Females have higher rates of mood disorders, substance use, sexual abuse, and physical abuse (Timmons-Mitchell, et. al., 1997 & Teplin, et. al., 2002). Furthermore, African-American youth are twice as likely to be arrested and seven times as likely to be placed in youth corrections facilities compared with Caucasian youth. There is a minority overrepresentation, a disproportionate minority confinement, and an under utilization of mental health service identification and implementation. The former refers to the harsher treatment of minorities in comparison to their corresponding Caucasian by the juvenile justice system. The latter is a subset involving only the harsher treatment of minorities detained at secure facilities during pretrial and post-dispositional stages. It is clear that all juveniles with mental health and other specialized needs are overrepresented in the juvenile justice system (Otto, 1992; Teplin, et. al., 2002 & Timmons-Mitchell, et al., 1997).

Juvenile justice administrators are faced with the multifaceted problems that arise when dealing with juveniles with serious mental illness. Although the literature on dealing with juvenile offenders with mental health issues is limited, juvenile justice administrators and mental health providers must be flexible in their responses. There has been a shift in the delivery of mental health services from
residential and community-based care to the treatment of the serious mentally ill juvenile offender. Thus,
there is an even greater reliance on the juvenile justice system. Juvenile courts now expect that mental
health treatment will be provided for youth while in juvenile correctional facilities. This creates a burden
on the juvenile justice system as these administrators are hampered by inadequate approaches and
practices for managing and treating this population (Altschuler, 1996; Burns, 1999; Butterfield, 1998;
Hartman, 1997). Risks to youth have included retraumatization, difficulty reintegrating with the family,
and acquiring antisocial behaviors as a result of exposure to negative peers (Veysey, 2003, Dishion,
Thomas, McCord & Poulin, 1999).

Juvenile corrections play a significant role in coordinating the juvenile justice and mental health
systems of care in the provision of treatment services for these youth. The reality is that juveniles with
serious mental illness are committed to youth corrections facilities, and these facilities must develop the
capacity to provide effective mental health care. Efficient mental health care requires the application of
empirically supported casemanagement and treatment interventions; however there are few empirical
studies on how to use the juvenile justice system’s limited resources. Providers working with these youth
must look deeper into specific individual issues, strengths, and problems. Along with many other skills,
they must also be competent in providing appropriate interventions for the management and treatment of
this population.

The purpose of this article is to review critical factors in mental health programming for juveniles
in youth corrections facilities. This article is divided into six segments. Section one provides information
on the prevalence of mental illness among juveniles. Information on population characteristics consisting
of demographic data and other key trends in the juvenile justice system will be presented. Section two
classifies mental health disorders. A categorical approach to address the disorders often diagnosed among
juveniles will be discussed. Section three describes the relationship between youth characteristics and risk
factors of juveniles involved in the justice system. Integrating risk and protective factors in treatment is
the major emphasis. Section four provides information on the standard components of mental health care
for juveniles in youth corrections facilities. Section five describes model facility programs, and section six
discusses community programs and interventions based on promising practices. A listing and description
of these programs will be provided.

Prevalence of Mental Illness Among Juvenile Offenders

The prevalence rate of mental illness is significantly higher in juvenile justice populations than
those detected in the general population (Grisso & Barnum, 2000; Teplin & McClelland, 1998). In the
general population, almost 21 percent of U.S. children between ages nine to 17 had a diagnosable mental
or addictive disorder associated with at least one minimum impairment. Eleven percent, or roughly four
million adolescents suffer from a major disorder that results in significant impairments at home, at school,
reference). Similarly, Friedman, and Glickman (1987) found the prevalence rate of serious emotional
disturbance among adolescents in the general population to also be between nine and 13 percent.

Otto (1992), and Cocozza and Skowyra (2000) assert that mental health needs and services for
youth in the juvenile justice system are consistently found to be at least twice as high than in the general
population of adolescents. The estimates of afflicted adolescents are also much higher in the juvenile
justice system (Davis, Bean, Schumacher, & Stringer, 1991; Grisso & Barnum, 2000; Teplin, et al., 2002;
Ulzen & Hamilton, 1998). Estimates of mental illness are even higher for those youth confined in youth
residential corrections facilities (Cocozza, 1997; Faenza & Siegfried, 1998; Libert & Speigler, 1990; Otto
et al., 1992; Teplin et. al., 2002; Timmons-Mitchell, et al., 1997; Villani, 1999), ranging from 20 to 60
percent (Stewart & Trupin, 2003). Youth in the juvenile justice system are at a significantly high risk for
mental health issues that may have contributed to their criminal behavior (Wasserman, Ko, & McReynolds, 2004).

In Ohio’s youth corrections facilities the Diagnostic Interview for Children (DISC) and the Millon Adolescent Clinical Inventory (MACI) were used to establish estimates of mental health diagnoses (psychopathology). Twenty-nine percent of the total population and 84 percent of the females manifested symptoms of serious mental illness. Eighty percent of the total population had substance use problems. Eighteen percent of those with serious mental health disorders had previously been admitted to inpatient mental health and/or substance abuse facilities, and 13.5 percent had attempted suicide (Timmons-Mitchell, et al., 1997).

Similarly, Teplin et al., (2002) assessed a randomly selected stratified sample of 1,829 African-American, non-Hispanic White, and Hispanic juvenile offenders confined to Cook County detention. They discovered that two-thirds of males and nearly three quarters of females met the criteria for one or more of the following mental health disorders: affective disorders, anxiety disorders, psychosis, attention-deficit/hyperactivity, disruptive behavior disorders, and substance use disorders. Even more astonishing is that excluding conduct disorder (which is highly prevalent in the juvenile justice system), 60 percent of males and more than two thirds of females met criteria and had a diagnosis specific impairment for one or more mental health disorders. The data suggests that adolescents of the juvenile justice and mental health systems are often the same individuals and that they shift back and forth between mental health and juvenile justice systems (Teplin et al., 2002 & Timmons-Mitchell et. al., 1997).

Furthermore, in a study by Atkins, Pumariega & Rogers (1999), estimates of juveniles confined in youth corrections facilities, with mental health problems, were comparable to rates of juveniles treated in community mental health centers and psychiatric hospitals. Seventy-two percent of these adolescents were classified as mentally ill.

Additional studies examining mental health rates of adolescents placed in youth corrections facilities have yielded similar results. Using a structured diagnostic interview for 350 detained males and females, the state of Maryland (Shelton, 1998) discovered that 57 percent of its juveniles placed in youth corrections facilities had a history of mental illness, 83 percent reported a history of alcohol and drug use, and 19 percent reported having suicidal thoughts. In assessing the mental health disorder of 693 youth in detention centers, the state of Georgia’s juvenile justice system found that 61 percent of its juveniles had mental disorders, including substance use disorders (Martsteller, Brogran, & Smith, 1997). Similarly, the state of Virginia, while reviewing data from 17 residential corrections facilities, showed that eight to 10 percent of adolescents needed immediate mental health treatment (acute services) and that 77 percent of the adolescents met DSM-IV criteria for a mental disorder (Policy Design Team, 1994). By qualifying the definition of mental illness, the Policy Design Team came up with four categories based on the degree of functional impairment. The categories included none, minimal, moderate and severe/urgent. Of a total of 605 juveniles who participated in the study, 38 percent of the males and 43 percent of the females fell into the moderate range of mental illness and seven percent of the males and 15 percent of the females fell within the severe/urgent range. The most frequent diagnostic category was conduct disorder (52 percent) and 16 percent were believed to qualify for a diagnosis without accompanying conduct disorder or substance abuse disorder.

In assessing the mental health symptoms of adjudicated youth involved in the State of Washington Juvenile Rehabilitation Administration system, Stewart & Trupin (2003) discovered significant findings. Those who reported a high level of mental health symptoms (not DSM diagnoses) on the Massachusetts Youth Screening Inventory-Two (MAYSI-2), with or without co-occurring substance use problems, were likely to receive longer sentences and less likely to be eligible for community transition programs.
The differences in prevalence estimates may be partly related to the diagnostic testing instrument used. For example, some diagnostic instruments yield estimates of psychopathology while others yield estimates of clinical symptoms (Stewart, & Trupin 2003). Wasserman, McReynolds, Lucas, Fisher, and Santos (2002) suggest that prevalence studies in these areas may have been limited by use of inappropriate instruments, inadequate information about what point in the juvenile justice process assessments were conducted, and unspecified or possibly unknown sample characteristics. In addition, higher rates of mental illness appeared in studies that used direct youth assessment rather than record review. A common procedure for identifying youth with special needs relies on the documentation of prior mental health services. However, relying on this practice alone to determine service needs for youth entering the juvenile justice system deprives critical rehabilitation services to those youth who have not been treated for their mental illness in the past. In 1999, Novins, Duclos, Matin, Jewett, and Manson, conducted a study of incarcerated juveniles (as cited in Wasserman et al., 2002), only 34 percent of those with recorded diagnosis of affective, anxiety, or disruptive behavior disorders had received services.

Other explanations indicate that previous studies often failed to identify the time frame for the diagnosis because differentiating between lifetime and current diagnosis is critical for determining accurate prevalence rates and in planning for immediate service needs. To address these incongruent findings, Wasserman et al. (2004) conducted a study that examined the practicability of administering the Voice DISC-IV to accurately assess the rate of psychiatric disorders in male youths who were recently admitted to the juvenile correctional institutions in Illinois and New Jersey. Findings appear to be valid as the rates of disorders are comparable to those found on other formats. In the past month, 18.9 percent met the criteria for having any kind of anxiety disorder, 9.1 percent met the criteria for having any kind of mood disorder, and 49.3 percent met the criteria for having any kind of substance use disorder. Thirty one and one eighth percent met the criteria for having any kind of disruptive behavior disorder in the past month, including Attention Deficit Hyperactivity Disorder. Even more alarming is that within the past six months 31.8 percent met the criteria for Conduct Disorder.

While there are differences in numbers, most studies are comparable in their findings. However, nearly all studies may underestimate the prevalence rates of mental illness among youth incarcerated in corrections facilities. This is partly due to studies excluding youth who were not incarcerated at the time as their charges may have been less serious, they were released, or they were placed into the mental health system. Also underreporting of symptoms by youth is quite common particularly for those with disruptive behavior disorders (Teplin, et al., 2002).

Table 1 summarizes the Prevalence of DSM Diagnoses in Incarcerated Juvenile Justice Samples conducted between 1992 and 2002. These studies are a representative sample of the prevalence of mental health disorders among juvenile offenders in youth corrections facilities.
### Table 1: Prevalence Rates of DSM Diagnoses in Incarcerated Juvenile Justice Samples

While juvenile corrections provide mental health services for youth, the problem lies in the fact that there is a lack a research base to support its effectiveness. The following section provides a review of terms and definitions related to mental health disorders. An overview of classification and categorical systems will be presented.

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<td>Conduct Disorder/Disruptive</td>
<td>81%</td>
<td>50-90%</td>
<td>35%</td>
<td>100%</td>
<td>42.7%</td>
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<td>Substance Abuse &amp; Dependence</td>
<td>79%</td>
<td>25-50%</td>
<td>30%</td>
<td>88%</td>
<td>20%</td>
<td>49.4%</td>
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<td>Mood/ Affective Disorders</td>
<td>32.3%</td>
<td>32-78%</td>
<td>13%</td>
<td>72%</td>
<td>24%</td>
<td>18.7%</td>
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<td>Anxiety Disorders</td>
<td>6.4%</td>
<td>6-41%</td>
<td>30%</td>
<td>52%</td>
<td>33%</td>
<td>21.2%</td>
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<td>M 72%</td>
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<td>ADHD</td>
<td>18.5%</td>
<td>0-46%</td>
<td>7%</td>
<td>76%</td>
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<td>Psychotic</td>
<td>.6%</td>
<td>1-6%</td>
<td>N/A</td>
<td>16%</td>
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<td>PTSD</td>
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<td>Mental Retardation</td>
<td>4.1%</td>
<td>7-15%</td>
<td>N/A</td>
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<td>Learning Disabilities</td>
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<td>Sleep Disorders</td>
<td>2.9%</td>
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<td>Eating Disorders</td>
<td>N/A</td>
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<td>N/A</td>
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<tr>
<td>Personality Disorders</td>
<td>16.8%</td>
<td>2-17%</td>
<td>N/A</td>
<td>N/A</td>
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How Are Mental Health Disorders Classified?

Mental Health Disorders in Juveniles Defined

Juveniles with mental health disorders comprise a heterogeneous population with varying degrees and manifestations of mental illness. This has added to the difficulty in addressing mental health issues. Part of this intricacy is the multiple uses and definitions of the term mental health disorders. However, a distinction may be drawn between youth with serious mental illness and youth with serious emotional disturbances. The juvenile with serious mental illness poses the greatest challenge to juvenile correctional administrators and staff. Youth with serious mental health issues require multiple services and supports. Necessary services include medications, intensive services for acuity, substance abuse treatment, and educational services (Underwood, Barretti, Storms, Safonte-Strumbolo, 2004).

Grisso and Barnum (2000) refer to the range of mental health disorders as lying within the narrow band, i.e. serious mental health disorders and formal DSM-IV diagnosis, and broad band, i.e., severe emotional and adjustment problems regarding family, school, or community. As the DSM-IV-TR (2000) struggles with appropriately integrating the mental health needs of juveniles, there can be confusion in identifying mental health disorders in this population. Mental health issues and behavioral issues are not always fully distinct. Thus, a flexible diagnostic classification approach is necessary in distinguishing between the mental health and juvenile justice issues and implementing treatment strategies to deal with both sets of issues. For example, antisocial and/or aggressive behavior is often mistaken as serious mental health disorders, when, in fact, there may be no manifestations of serious mental illness or it coexists with the antisocial and/or aggressive behavior.

Categories of Juveniles with Mental Health Disorders

To lessen the confusion between definitional and diagnostic concerns, Underwood and Berenson (2001) proposed a categorical approach to mental health.

They recognized that juveniles with mental health disorders who enter the juvenile justice system are different in terms of demographics, personal histories, personality functioning, and manifestations of mental disorders. When planning mental health services for these youth, it is important for juvenile justice administrators to have a framework based on the range of mental health disorders so that the appropriate treatment addresses the unique needs of each youth.

The following framework is presented to distinguish between six categories of mental health disorders that are common among the juveniles in the juvenile justice system. Each group of disorders has unique behavioral symptoms that pose as challenges to the treatment and management of juveniles in the justice system. These indicators must be addressed, by providing mental health interventions tailored to the individual, so that more comprehensive treatment can be implemented for the purpose of reducing the risk of future mental health crisis and criminal behavior.
Table 2: Categories of Juveniles with Mental Health Disorders

<table>
<thead>
<tr>
<th>Typical DSM-IV Diagnoses</th>
<th>-Major Depression -Dysthymia -Bipolar Disorders</th>
<th>-Post Trauma Stress Disorder -Obsessive Compulsive Disorder -Phobias</th>
<th>-Schizophrenia -Schizoaffective - Schizophreniform -Delusional -Psychotic Disorders</th>
<th>-Conduct Disorder -Oppositional Defiant Disorder -Intermittent Explosive Disorder</th>
<th>-Alcohol and Substance Abuse/Dependence diagnoses with other mental health diagnoses</th>
<th>-Manifest themselves by odd/eccentric behaviors, dramatic/emotional reactions and anxious/fearful responses to expectations.</th>
</tr>
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<tbody>
<tr>
<td>Some Alterations in Mood and Behavior</td>
<td>-Shifting mood -Irritation -Episodes of Anger -High risk behaviors -Disinterest -Hopelessness</td>
<td>-Mimic mood of staff and peers -Bed time agitation -Ruminative Thinking</td>
<td>-Frequent talking to oneself -Brief outbursts of anger -Inappropriate laughter</td>
<td>-Adversarial relationships -Limited problem-solving -Manipulative -Anger often reflects fear</td>
<td>-Drug-seeking behavior -Symptom presentation may shift from depression and anxiety to withdrawal</td>
<td>-Behaviors may appear spontaneous and natural -Compulsive, manipulative, covert and acting out behavior common</td>
</tr>
<tr>
<td>Some Management Issues</td>
<td>-Open settings/&amp; active participation encouraged -Behavior therapy -Supportive confrontation</td>
<td>-Extra reassurance needed -Verbal de-escalation strategies -Active Listening</td>
<td>-Careful observation of youth -Low stress and non-confrontational methods</td>
<td>-Consistency -Direct, confrontational methods -Ongoing testing to rule out organic factors.</td>
<td>-Staff should be cross-trained in mental health and substance use disorders -Modulated therapeutic confrontations</td>
<td>-Accountability needed -Clear expectations from staff -Positive role models from staff -Use of behavior contract</td>
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Affective-Based

Affective disorders refer to long-standing, chronic mood states that have the potential to affect all aspects of a juvenile’s life. Affective disorders can involve a significant elevation of mood states and can occur as full or partial episodes. Judgment and reason can also be affected. Psychological and physiological symptoms affect energy levels and mood regulation. Juveniles with affective disorders may experience feelings of sadness, hopelessness, helplessness, worthlessness, and agitation. They may also experience sleep disturbance, lethargy, and decreased interest in pleasurable activities or lack motivation. Common diagnoses found in the DSM-IV-TR include major depression, dysthymia, and bipolar disorders (Underwood & Berenson, 2001).

Affective disorders are common among juvenile offenders, ranking closely behind conduct and alcohol dependence disorders. When working with juveniles with affective disorders, it is important to be aware of the following alterations in mood and behavior.

1. Depressive states, co-occurring with conduct disorders, increase suicidal ideations and behavior.
2. Shifting mood states, from elevation to depression within brief periods, often occur without obvious provocation and are unpredictable.
3. Experiences feelings of agitation and irritability.
4. Exhibits spontaneous episodes of anger.
5. Engages in high risk behaviors.
6. Disinterest in daily activities resulting in social isolation and withdrawal often increases apathy.
7. Hopelessness and helplessness accompanied with an “I don’t care” outlook on life are symptoms of depressed mood states.
8. Resist pharmacological management or seek inappropriate levels of medication in order to dull mood states.

Anxiety-Based

Anxiety disorders refer to the persistent experiences of nervousness, tension, apprehension, and fear. These feelings may be real or imagined and affect concentration, daily performance, and can impair physical ability. Juveniles with anxiety disorders can become apprehensive about the outcomes of routine. They may experience panic attacks and/or develop phobias that can interfere with daily activities. Anxiety disorders in juveniles may be characterized by extreme terror, worry and hypervigilance. Juveniles may experience intruding and invasive thoughts of past abuse and may actually relive certain emotions that were present during the episode(s) of the original abuse. Some may have witnessed high levels of violence, aggression, and chaos in their families, schools, and neighborhoods. Diagnoses found in the DSM-IV-TR include posttraumatic stress, obsessive-compulsive, panic disorders and phobias. When working with juveniles with anxiety disorders, it is important to be aware of the following alterations in their anxiety and their behavior (Underwood & Berenson, 2001).

1. Limit testing behavior with the goal of diminishing internal conflict which emanates from the anticipation of danger.
2. Increased agitation occurs during periods of unrest in their environment. These juveniles tend to mimic the mood and tension levels of their peers and staff.
3. Increased agitation around bed time which may stem from intruding thoughts of being abused in the past.
4. During heightened states of anxiety, these juveniles may be very difficult to manage as they may episodically exhibit panic or dissociation.
5. Anxiety can mimic physical symptoms. Availability of medical staff is necessary.
6. Anxiety and depression co-existing together is common which results in a greater risk for suicidal behavior.
7. Ruminative thinking that can generate more anxiety.

Psychotic-Based

Psychotic disorders refer to a disintegration of thinking processes, affecting cognitive function, perception, judgment, and mood. These disorders involve the inability to distinguish external reality from internal beliefs. Juveniles with psychotic disorders may experience poor reality testing, hallucinations, delusions, paranoia, social withdrawal, and ideas of reference. Disorganized speech and psychomotor disturbance are also common. These juveniles may have significant histories of bizarre experiences. Members of their families may or may not have struggled with similar or other mental health issues. DSM diagnoses include some organic mental disorders, schizophrenia, schizoaffective, schizophreniform, brief reactive, delusional, psychotic and substance-induced psychotic disorders. These juveniles may appear to be odd and different with profiles including language and communication deficits along with psychomotor retardation. They tend to withdraw from interpersonal activities and may become paranoid
of their surroundings. Staff members generally are aware that these juveniles are not fully in contact with reality and may describe these juveniles as “unusual”. However, based upon cultural differences and level of intelligence, these juveniles might overcompensate in certain areas, allowing them to appear better adjusted psychologically. When working with juveniles with psychotic disorders, it is important to be aware of the following alterations in their thought and their behavior (Underwood & Berenson, 2001).

1. Juveniles in an active psychotic episode should be probated to community psychiatric facilities as soon as possible.
2. Adjustment to the correctional facility will be extremely difficult and if possible, removal from the facility to a psychiatric center is optimal.
3. Poor pharmacological management due to denying the existence and intensity of their problems is part of the symptomatology.
4. Teasing and victimizing behaviors exhibited by peers and staff due to their ignorance of the illness is common.
5. Frequent talking with oneself and arguing with unseen individuals is characteristic of psychosis.
6. Brief outbursts of terror which may be closely followed by eruptions of inappropriate laughter should not be confused with acting-out behavior.
7. Unprovoked impulsive behaviors that can range from low level impulsivity to acts of violence may occur.

Co-Occurring Mental Health

Co-occurring disorders refer to the simultaneous experience of a substance use (abuse or dependence) and a mental disorder. A diagnosis of co-occurring disorders occurs when at least one disorder of each type can be determined independent of the other and is not a cluster of symptoms resulting from the other disorder (Miller, Zweben, Diclemente, & Grychtarik, 1995). These disorders have pronounced affects on the thoughts, mood and behaviors of juveniles. Juveniles with co-occurring disorders often have histories of deeply rooted mental health issues for which the substance use allows temporary relief of emotional pain. Juveniles with co-occurring disorders may also be more impulsive and potentially more violent than youth with an isolated mental health or substance use disorder. Often both the mental health and substance use issue are unrecognized and described by others as “acting out” behavior. These youth often fall “between the cracks” due to mislabeling and failing to recognize their unique and specific needs. Disorders seen in the DSM include the alcohol and substance abuse/dependence diagnoses along with another mental health diagnoses. Substance use in juveniles exhibiting co-occurring conduct disorders and depression becomes a major a risk factor for ongoing delinquency (Underwood & Berenson, 2001). When working with juveniles with co-occurring disorders, it is important for staff members to receive the following prerequisite training:

1. Cross-training in mental health and substance use disorders to fully understand each disorder, along with the co-occurring nature of the disorders is essential.
2. Dynamics of drug-seeking behavior as well as medical complications.
3. Symptom presentation may shift from signs of depression and anxiety to withdrawal.
4. Modulated therapeutic confrontations according to the fragility of the mental status of the juvenile.

Personality-Based

Personality disorders and traits refer to ingrained pervasive patterns of functioning that affect cognition, perception, mood, and behavior. The impact of these disorders affects the behavior of juveniles as they experience difficulties that are deeply rooted in their personality. These disorders
involve underlying features of personality and may not necessarily be pathological, although certain styles may cause interpersonal problems. These disorders are rigid, inflexible, and maladaptive and can often cause functional impairment and subjective distress. Juveniles with personality disorders and traits are difficult to manage and treat because the very existence of the disorder is often tied into the long-standing patterns of adversarial interpersonal relationships. Personality disorders seen in the DSM-IV-TR are divided into three categories because they share common features. They include odd and eccentric behaviors, dramatic and emotional reactions to daily events, and anxious and fearful responses to expectations (Underwood & Berenson, 2001). When working with juveniles with personality disorders, it is important to be aware of the following personality alterations as well as management issues:

1. Behaviors may appear totally unrelated to the primary mental health diagnoses.
2. Behaviors may appear spontaneous and natural.
3. Juveniles do not consider the impact of their behaviors on others due to the pervasive nature of the disorders and traits.
4. Behaviors, which are integral to the juvenile’s way of life, pose serious obstacles to treatment. Staff must understand that these behaviors change slowly.
5. Symptom substitution including other compulsive, manipulative, covert and acting out behaviors is common.

It is important to note that juvenile offenders with mental health disorders will rarely display sole features of the aforementioned categories (Ries, 1994). Combinations of behaviors, based upon their experiences of life are manifested differently in each juvenile.

**Disruptive Behavior-Based**

Disruptive behavior disorders refer to a cluster of law-breaking and intrusive and invasive behaviors, often evidenced by disorderly conduct and aggression. Juveniles with disruptive behavior disorders are impulsive and often maintain underlying affective or anxiety-based disorders. They often may have histories of mood and anxiety disorders and criminal behaviors, with persistent disruptions that violate the rights of others and societal norms. Destruction of property, deceitfulness, and aggressive acts are often experienced in the course of these disorders. Genetic and biological factors may significantly contribute to the onset of symptoms. DSM diagnoses include oppositional defiant, conduct, and intermittent explosive disorders. The most common diagnosis for boys is conduct or oppositional defiant disorders often with an additional diagnosis of attention deficit hyperactivity, major depression, and/or alcohol dependence disorders (Underwood & Berenson, 2001). When working with juveniles with disruptive behavior disorders, it is important to be aware of the following alterations in mood and behavior.

1. Certain behaviors are exhibited in the attempt to dull or mask underlying emotional issues.
2. Adversarial relationships and negative attention seeking behavior is often preferred by juveniles with these disorders.
3. They often have limited problem solving skills.
4. Radically different ways of perceiving relationships is common.
5. Self-serving views of the world with the inability to understand the concept of injury to others is characteristic.
6. Use of power tactics and manipulative behaviors with peers and staff members are often common and perpetuate adversarial relationships.
7. The expression of anger is usually an attempt to re-channel underlying fears and anxieties.
Neurologically-based

Many disorders can be considered neurologically-based, but for the purpose of the article, refer to those neurological disorders found in the DSM. Disorders that limit intellectual functioning include mental retardation, learning disorders, motor skills disorder, communication disorders, pervasive development disorders, attention-deficit/hyperactivity disorders (ADHD/ADD), feeding and eating disorders, tic disorders, and elimination disorders. Many behaviors displayed by juvenile offenders with neurological disorders can be misinterpreted especially those with ADHD/ADD (Underwood & Berenson, 2001).

ADHD/ADD transpires as a result of neurological dysfunction in the prefrontal cortex. The prefrontal cortex controls the part of the brain that guides, directs, and focuses behavior (Amen, 1998). It allows individuals to formulate goals, to make plans, to follow through with those plans, to alter their direction and to improvise in the face of problems or failure, and to do so successfully, without external direction or structure (Ratey, 1995). Juveniles with poor prefrontal cortex functioning experiences difficulty thinking about what to say before they say it and often come into conflict with parents, teachers, police officers, and friends. Inattentive symptoms such as appearing not to listen, frequent forgetting, and failing to follow through on instructions are also quite common (McInnes, A., Humphries, T., Hogg-Johnson, S., Tannock, R., 2003). The inability to concentrate on certain tasks is another characteristic of ADHD. Situations that require concentration, impulse control, and quick reactions are hindered by the dysfunctional prefrontal cortex. Due to the lack of activity, the prefrontal cortex creates its own stimulation. This can lead to problems such as lying, stealing, and fighting. Many juveniles with ADHD/ADD unconsciously seek conflict as a way to stimulate their brain. Often times ADHD/ADD causes juveniles to repetitively make mistakes because they have trouble learning from their past experiences (Amen, 1998).

When working with juveniles with ADHD/ADD, it is important to consider the following:

1. Disruptive behaviors of juveniles with ADHD/ADD may not be willful and may be the result of their disorder.
2. The longer ADHD/ADD symptoms go untreated, the more likely the individual will progress into criminal behavior.
3. Even if juveniles with ADHD/ADD want to control their actions, their behaviors can still be inconsistent and unpredictable.
4. Juveniles with ADHD/ADD do not respond well to repetitive, effortful, tedious activities that others choose for them.
5. Many juveniles with ADHD/ADD have a low threshold for arousal and are easily provoked.
6. Juveniles with ADHD/ADD need immediate, frequent, predictable, and meaningful rewards.
7. Juveniles with ADHD/ADD are at a higher risk for depression and other mood disorders.

The following section provides information on the relationship between risk factors and youth characteristics.

The Relationship Between Risk Factors and Challenges of Youth

Over the past 10 years, researchers have emphasized prevention measures and protocols that focus on changeable treatment targets. These targets focus on observable and measurable behaviors. Additionally, these targets refer to behaviors that are desirable only when a juvenile is a member of a group whose risk of becoming ill is above average (Marczyk, Heilbrun, Lander, & DeMatteo, 2003).
Without proper interventions, these individuals run a high risk for future development of problems that may lead to further emotional deterioration and delinquency. Proper interventions must be administered to juveniles that focus on risk factors that can be changed (i.e., behaviors, attitudes). Research suggests that explanations of delinquency and other emotional and behavioral outcomes may be similar among juveniles with emotional and behavior problems than with juveniles who do not have emotional and behavior needs (Henggeler, 1998).

The terms risk and protective factors have been used to explain mental illness and delinquency. These terms allow researchers to promote consistency in research and to compare other research findings. Risk and protective factors, drawn from epidemiological studies, correlate with the onset and pattern of mental illness and delinquency. The factors that contribute to mental illness and delinquency are referred to as “risk”. The factors that prevent or inhibit mental illness or delinquency are called “protective” factors (Farrington, 1998).

Relevant risk and protective factors for mental health and delinquency are not fully understood. The upbringing, lifestyle, and environments of juvenile offenders may include physical, verbal, and even sexual abuse and traumatic experiences (Garbarino, 1995). The risk and protective factor’s domain include individual, peers, families, schools and communities. These juveniles have poor employment histories, unstable interpersonal relationships, and ongoing substance abuse issues (Haapanen, 1990). Researchers have relied upon different risk and protective factors such as socioeconomic, situational and biological factors. (Cellini, 2000; Farrington, 1998; McCord, Widom, & Crowell, 2001). As such, the below review of the various challenges of youth serve as a framework to contribute to the emerging body of information on risk factors and mental health program services for juveniles in youth corrections facilities.

**Individual & Peer Factors**

Offending and antisocial behavior can be defined as recurring violations of socially prescribed patterns of behavior, often characterized by hostility, aggressive behavior, defiance of authority, and violations of social norms and mores (Simcha-Fagan, Langner, Gersten, & Eisenberg, 1975) Socially, these individuals may be described as egocentric, manipulative, grandiose, and forceful (Lyman, 1996), often evidencing shallow emotions, lack of empathy, and little remorse for wrongdoing (Gresham, 2000).

These behavior patterns can develop at an early age, which may correspond to etiological variations, and subsequent progressions of a serious criminal career, or most notably, mental illness. There are distinct pathways to the development of disruptive and serious delinquent behavior that can be prevented, but often is not. Early childhood factors include having a difficult temperament, hyperactivity/impulsivity/attention problems, and stubbornness. During the preschool years, if a child with aggressive and disruptive behavior begins to lie without any remorse, serious issues can emerge in early adolescence that may include stealing, engaging in sex, and abusing substances. Depression and exposure to violence along with a favorable attitude toward delinquent behaviors heighten the risk for becoming a serious juvenile offender. Many youth with disruptive disorders develop a spectrum of personality disorders in adulthood (Rey, Morris-Yates, Singh, Andrews, & Stewart, 1995).

Of noteworthy interest are correlations between juvenile delinquency and personality functioning, which have classically been associated with psychopathy and antisocial personality, including examples of recklessness, lack of a sense of responsibility, disinhibition, absence of shame, guilt, or remorse, impaired capacity for relationships, scarcity of affect, and lack of goal-directedness (Steiner, Cauffman & Duxbury, 1999).
In examining the characteristics of delinquents over the years, a variety of typologies have been proposed. Experts suggest (Loeber & Farrington, 1998) that there is a common theme of progression from fewer, less serious types of offending to further, more serious types of offending. Loeber, et al., (1991) summarize this progression into three different patterns and outcomes in the development of childhood disruptive behavior: (1) authority- conflict, including stubborn behavior, defiance, and authority avoidance; (2) covert behavior, including minor insidious damage and moderate forms of delinquency; and (3) overt behavior, including aggression, fighting, and violence.

Juveniles with serious antisocial and aggressive behavioral patterns who violate social norms and mores comprise between 35-50 percent of referrals to mental health clinics, making it the most commonly cited reason for bringing adolescents to the attention of mental health providers (Rogers, Johansen, Chang, & Salekin, 1997). Furthermore, institutional placement of juveniles with antisocial behaviors is becoming more common. These youth are three times more likely to report acts of vandalism, assault, shoplifting, gang involvement, and carrying a weapon on school property within the past 12 months than their public school counterparts (Fulkerson, Harrison & Beebe, 1997).

Many juvenile delinquents are invested in antisocial attitudes and beliefs that rationalize their violent solutions to their interpersonal problems. (Walker & Gresham, 1997). They commonly perceive another’s behaviors and intentions toward them as hostile and threatening (Dodge, 1986). This may be due to a perceptual bias that distorts their ability to accurately decipher and interpret another’s behavior, precipitating aggressive reactions to situations viewed as intimidating or threatening (Walker & Gresham, 1997).

**Family and Neighborhood Factors**

The profiles of juveniles in the juvenile justice system clearly indicate the extent of family and environmental risk factors. Family issues that have been consistently implicated in juvenile justice include poor parent-child relationships, lack of discipline, parental or family conflict, absence of a father, being born a teen mother, neglect, coercive child-rearing (Farrington, 1998; Patterson, Reid & Dishion, 1992), lack of warmth and affection, inconsistent parenting, sexual abuse, violence, disrupted attachments, and parental substance abuse (Henggeler, 1998).

Numerous studies link delinquent behavior and emotional distress with many different aspects of family functioning. Among these studies, family characteristics are suggested to be parental or familial antisocial behaviors or values, including criminal behavior as part of the family history, and stark parental discipline (Tolan & Lober, 1993). Several other studies across a range of populations related delinquent and poorly controlled emotional regulation to a lack of parental monitoring, neglect, poor discipline methods, and conflict about discipline (Farrington, 1989; Gorman-Smith, Tolan & Henry, 1998; Patterson et al., 1992). Similarly associated are low levels of parental warmth, acceptance and affection, low cohesion, high conflict and hostility, divorce, parental absence, and other losses (Farrington, 1994; Henggeler, Melton, & Smith, 1992; McCord, 1982).

Loeber and Stouthamer-Loeber (1991) completed a meta-analysis of concurrent and longitudinal studies and identified four heuristic paradigms that encompass much of the existing literature related to types of family problems associated with delinquent behavior. These family categories were identified as neglect, conflict, deviant behavior and attitudes, and disruption (Loeber & Stouthamer-Loeber, 1991).

Unstable or highly dysfunctional families can lead youth to look elsewhere for a family of their own. Experts believe that one of the many motivating factors for youth gang involvement is the unfulfilled need for a sense of family (Granelllo & Hanna, 2003). Juveniles who do not have a strong bond with their family and live in urban neighborhoods where crime is even higher are even more at risk.
for engaging in deviant behaviors. Some communities have more opportunities for youth to engage in deviant behavior, others may encourage or tolerate criminal behavior. Some research suggests that in destitute communities, poor socialization has a significant effect on delinquency. Other risk factors include drug use in the community, poor academic achievement, truancy, lack of community or school involvement, long term unemployment in the areas, and high levels of community violence. Researchers further suggest that environments with collective efficacy, which involves an ability to look out for and support one’s neighbors, may have lower crime rates even if otherwise disadvantaged.

**Ethnic and Cultural Factors**

In 1996, youth of color comprised about one-third of the juvenile population yet accounted for about two-thirds of the incarcerated population (Hamparian & Leiber, 1997). Other studies conducted on this disproportionate representation of minorities in the justice system have yielded similar results. African-American, Latina, and other youth of color not only continue to be, but are increasingly at risk for entry in juvenile justice systems rather than treatment centers (Bilchik, 1999; Elliot, 1994; Elliot, Huizinga & Menart, 1989; Tolan & Guerra, 1994).

Substantial evidence exists that youth of color are often treated differently than Caucasian youth within the mental health and juvenile justice system (Boyd, Franklin, 1991; Isaacs, 1992; Underwood and Rawles, 2002). Building Blocks for Youth, developed by the Youth Law Center, reports that youth of color experience a disadvantage as they move from arrest, to adjudication, to sentencing, and possibly to incarceration (Juszkiewicz, 1998 ).

Although the number of cases has increased for all racial groups in all offense and mental health categories over the last decade, rates for African-American youth remain well above rates for Caucasians and other minorities. Approximately two-thirds of the examined studies show that racial and/or ethnic status influences decision-making in at least one stage or another of the juvenile justice process. Even in controlling for offense, it is nearly twice as likely that cases involving African-American youth will enter detention and correctional facilities as cases involving Caucasian adolescents (Department of Justice, 1999).

Some believe this over-representation of youth of color in the juvenile justice system is a result of this population committing more crimes than Caucasian juveniles. Some studies of delinquent behavior do show that African American youth reported more offenses than Caucasian youth. Social and economic factors pertaining to African American and youth of color may present a partial explanation.

Delinquent behavior along with emotional disorders for this population stem from complicated medical, social and psychological factors (Bilchick, 1999 & Canino & Spurlock, 1994). Of all the minority adolescents who live in poor, urban communities, approximately 35 % live in “underclass” neighborhoods (Wilson, 1991) where crime rates are reported to be high. Most of their clinical profiles are characteristic of a young, undereducated, single family household headed by a mother, likely to be unemployed and on welfare (Isaacs, 1992).

Correlations with delinquency among youth of color include lack of legitimate job opportunities, increasing social isolation, poor schools, and weak community organizations (Isaacs, 1992). A culture of urban poverty, homelessness, and social disorganization yields maternal and child risk factors. Each subsequently constitutes more risk factors for adolescent and young adulthood crime and violence-me (Group for the Advancement of Psychiatry, Committee on Preventative Psychiatry, 1999). Furthermore these variables and others predict that youth of color have limited access to treatment networks and opportunities that would lessen the need for mental health services (Boyd-Franklin, 1991; Isaacs, 1992).
Substance Use Factors

Family functioning, school functioning, and peer relationships are consistently linked to substance-abusing youth who engage in delinquent activity (Henggeler, 1998). Youth placed in residential facilities are much more likely than youth in public schools to report the use of alcohol, and drugs. When compared to their public school counterparts, youth in community programs were two times more likely to use amphetamines and inhalants, three times more likely to use sedatives, five and one-half times more likely to have injected drugs, two and one-half times more likely to use marijuana and prescription drugs, six times more likely to use cocaine, four times more likely to use LSD, hallucinogens, and opiates, three times more likely to use alcohol or drugs before or during school, and two times more likely to drink at least six drinks when they drink alcoholic beverages (Fulkerson et al., 1997).

In recent years, it has been concluded that youth who abuse substances present with higher rates of comorbid psychiatric problems, such as depression and conduct disorder (Greenbaum, Foster-Johnson, & Petrila, 1996; Waldron, Slesnick, Peterson, & Turner, 2001; & Weinberg, Rahdert, Collier, & Glantz, 1998), and that youth who abuse substances are especially at high risk for developing co-occurring disorders (Capaldi, 1992; Cocozza, 1997; Thompson, Riggs, Mikulich, & Crowley, 1996). A 1999 study regarding psychiatric comorbidity among youth who abused substances demonstrated that youth who have substance abuse issues along with distinctive degrees of comorbidity, such as internalizing (i.e., affective disorders) and externalizing (i.e., conduct disorder) disorders, may be linked with differential longer-term treatment outcomes (Drake, Muesser, Clark and Wallach, 1996; Randall, Henggeler, Pickrel & Brondino, 1999). For example, adolescent substance abuse combined with comorbid externalizing disorders predicted high school dropout (Kessler, Foster, Saunder, & Stang, 1995) and inpatient treatment failure, (Abram & Teplin, 1991) whereas comorbid internalizing disorders predicted completion of inpatient treatment for substance-abusing adolescents (Kaminer and Frances, 1991).

Additionally, youth with substance abuse disorders and comorbid external disorders engage in even more delinquent acts than their substance-abusing delinquent counterparts. They also engage in higher rates of illicit drug use, use more marijuana and alcohol, and exhibit less family cohesion, greater conformity to antisocial peer pressure, and decreased school competence (Randall, et al., 1999). Consistent with previous investigations (Kessler, et al., 1995), comorbidity predicts poor treatment outcomes than substance abuse alone, and comorbid externalizing disorders, such as conduct disorder, predicts worse treatment outcome (Randall, et al., 1999).

Biological and Neurological Factors

Lewis (1992) has identified some youth as “intrinsically vulnerable children” who have cognitive, psychiatric, and/or neurological impairments, suggesting that such neuropsychologically impaired youth, by virtue of their hyperactivity and impulsivity, are more likely to be abused by adults in their families (Lewis, 1992). Some delinquent youth manifest characteristics that are biologically-based components of executive cognitive dysfunction or disorders of behavioral self-regulation. Biological factors, such as impairments of the central nervous system, head injury, poor nutrition, exposure to environmental toxins or genetic predisposition, are factors relating to mental disorders (Cellini, 2000). Examples that appear to be related to aggression in adolescents include difficulties with planning, focusing their attention, abstract reasoning, foresight, problem solving, self-monitoring, and motor control (Giancola, Martin, Tarter, Pelham, & Moss, 1996). Temperamental features can also influence aggressive behavior, such as sensation seeking and difficulties regulating affect (Pandina, Johnson, & Labouvie, 1992).
Youth With Special Needs

Youth with special needs, including ethnic minorities, females, mentally retarded, developmentally delayed, medically fragile, and violent adolescents, require unique intervention and treatment services. Specialized and culturally competent interventions must be integrated into the treatment plan of these youth. Collaboration with external and internal care systems and providers is especially important with these adolescents for the purposes of management and aftercare services. Some community programs provide separate housing units for these youth, as they benefit from smaller units, less stimulation, and more individual interaction (Underwood, Mullan & Walter, 1997).

Treatment expectations and curricula should be consistent with empirical literature for these youth. The following adaptations might be considered:

- Specialized training for all staff working with the group.
- Additional time with treatment interventions.
- Repetition of clinically relevant information.
- Graphic illustrations of program expectations.
- Use of behavioral rating systems.
- Modified positive reinforcement schedules.
- Customized treatment interventions.

The following section reviews standard components of mental health care for youth in correctional facilities.

Standard Components of Mental Health Care for Youth in Correctional Facilities

Correctional treatment programs are designed to reduce the incidence of delinquent and criminal behavior. Mental health interventions are designed to manage, and where ever possible, alter serious disorders of thought and affect. In planning for the delivery of mental health services in institutional settings that provide correctional treatment regimens, the following factors must be understood:

- Juvenile with mental disorders are a heterogeneous population, with differing etiologies, symptomatologies, family dynamics, and courses of the disorders.
- Juveniles with mental health disorders have very high rates of co-morbidity with differing manifestations of psychopathology and with substance abuse disorders. (Fergusson, Horwood & Lynskey, 1993; Kashani, Orvaschel, Rosenberg, & Reid, 1989; Verhulst & Van der Ende, 1993).
- Female juvenile offenders who display co-occurring mental health and substance abuse disorders have high rates of depression (Angold & Costello, 1993; Capaldi, 1992; Robins & Regier, 1991; Timmons-Mitchell et al., 1997; Zoccolillo, 1992).
- Some juveniles with mental health disorders manifest deviant sexual arousal patterns and behavior (Kraemer, Spielman, & Salisbury, 1995).
- Juveniles with mental disorders, oftentimes, fail to benefit from traditional psychotherapies (Bourdin, 1999; Underwood, Mullan, & Walter, 1997). Cognitive-behavioral approaches have shown promising results with this population.
- Juveniles with mental health disorders often manifest symptoms of mental confusion, delusional thought processes, social withdrawal, and unpredictable behavior (Timmons-Mitchell et al., 1997; Underwood et al., 1997).
- Juvenile offenders with mental health disorders, almost by definition, maintain a diagnosis of Conduct Disorder, along with other diagnoses (Melton & Pagliocca, 1992).
The next section provides information on core post-release treatment strategies. These strategies may be tailored, depending on the nature of the post-release rehabilitation program and the characteristics of youth.

**Screenings and Assessments**

Screening refers to a “triage” process and should be conducted on the first day of a youth’s admittance to the program with follow-ups throughout the program (Grisso & Underwood, 2005). Most are straightforward, short, and require minimal training to administer. Initial screenings are designed to identify mental health issues that may need to be further explored using various assessments methods. Screenings are helpful in identifying youth who are at increased risk of having learning disorders, mental health, substance abuse, and delinquency needs that warrant immediate attention.

A follow-up assessment should be conducted on youth’s whose initial mental health screen is elevated. Mental health assessments are a more comprehensive and individualized examination of the psychosocial needs and problems identified during the initial screening and include the type and extent of mental health problems, substance abuse, delinquency needs, community adjustment and recommendations for treatment interventions. Using a range of assessment methods such as conducting a face-to-face interview with the youth, observing their behavior, administering mental status exams, reviewing records, interviewing parents or other adults and taking family histories are ideal. (Center for the Promotion of Mental Health in the Juvenile Justice System [CPMHIJS], 2003). Generally, following an evaluation of these psychosocial needs include a diagnosis to guide the referral process or help with treatment planning. Furthermore diagnoses provide the juvenile justice and mental health providers with critical information that leads to the implementation of proven and evidence-based treatment principles.

Unlike screening, assessment serves a different purpose at different stages in the juvenile justice process. For example, at post-release intake, assessment results may be utilized to streamline services, resulting in a more appropriate and individualized post-release service plans. Before youth enter post-release programs, an initial mental health screen should be provided.

**Treatment Planning**

The purpose of the treatment plan is to integrate observations and findings from paraprofessional and professional staff members regarding the youth. Treatment plans address issues in education, community adjustment, life skills, medical health, mental health, community life activities, and other critical areas of care.

Treatment plans can serve as a “contract” between the youth, his/her family, juvenile justice staff, and the treatment provider. Treatment plans should be consistently updated on a monthly basis, with a formal meeting (professional staffing) with the youth, his/her parent, and members of the interdisciplinary treatment team. Treatment plans should be clear with measurable goals and objectives and whenever possible the youth should be involved in developing his/her individualized plan with the interdisciplinary treatment team. All youth should review and sign their treatment plans.

**Treatment Strategies**

Based on the needs of youth, specific treatment interventions should be implemented to address a wide variety of problems and solutions. Case management services should target behavioral symptoms and the provision of skills training for specific behavioral deficits. Treatment and case management interventions should rely on best practice and evidence-based procedures including positive reinforcement, behavioral monitoring, goal monitoring, behavioral shaping, coaching, modeling, role-play
practice, and constructive feedback. These techniques can be introduced and practiced in small groups and individual counseling sessions. Skill training should target a variety of symptoms by utilizing the following techniques: staying on topic, focusing attention, avoiding problem situations, identifying emotional triggers, accurate identification of their and others emotions, improving interpersonal behavior, and learning coping skills. Educational training for families should focus on improving their understanding of mental health and substance abuse disorders, recognizing and decreasing stresses that may lead to relapse, and teaching effective communication skills (Underwood, Barretti, Storms, Safonte-Strumbolo, 2004).

**Structured Individual & Crisis Counseling**

Structured individual and crisis counseling services should be used with youth based upon their level of risk (recidivism) and need (psychosocial). These services can be rendered by a paraprofessional or graduate prepared provider (Boesky, 2002). Individual counseling should focus on aspects of the youth’s mental health, substance use, delinquency, community adjustment and family needs. Individual counseling also needs to focus on daily issues that arise and are pertinent to the youth’s symptoms. Crisis intervention services should be provided to alleviate negative emotional symptoms (i.e., depression, anxiety, guilt, etc.) experienced by some youth. These services should be designed to encourage youth to utilize effective coping strategies and problem solving skills.

**Group Counseling**

Youth who show a readiness or a desire to improve their coping and relating skills should be allowed to join a group that will help them in this area. Structured group counseling is ideal to be used with youth to enhance their coping and problem solving skills. Short term psychoeducational and/or process group modules that are structured can help improve coping and problem solving skills. Sessions should be facilitated by a qualified mental health professional and a juvenile justice staff. During each session, each individual’s interactions and behaviors should be observed so that they can be provided with constructive feedback of how they affect others around them. Immediate feedback not only allows youth to process the situation and to think of alternative ways to manage their behavior, but it also offsets the negative development of peer groups (Dishion, Thomas, McCord, & Poulin, 1999).

**Family Interventions**

Current studies support the need to shift away from the individual, intrapsychic view of services to one that encompasses the entire family (29). An examination of all key factors influencing the youth should be involved (i.e, school, peers, culture, and socioeconomic level). Family interventions should provide a variety of services consisting of face-to-face sessions, telephonic sessions, family sessions, or a combination of the aforementioned. According to Underwood et al., (2004), applying interventions with families should consider the following assumptions: First, every youth enters treatment with a “family”, whether distant, functional, or dysfunctional, and the involvement of their family is a critical component in ensuring compliance and developing skills necessary to build and support productive lifestyle changes. Secondly, the family should be seen as the primary socializing unit, and in most cases, the most influential system to which the youth belongs. The focus of family interventions should be on the family strengths. Thirdly, the youth cannot be considered separately from the social context from which he/she resides. Lastly, the family remains a family, whether together or not, and family members will often continue to have relationships throughout their lives.
Pharmacological Management

Pharmacological management in this context refers to the administration of psychotropic medication to alleviate or minimize psychiatric symptoms. Medication helps youth to stabilize and control their symptoms, thus increasing their receptivity to other treatment services. Pharmacological management appointments with a psychiatrist should be consistent. Adequate time spent with each youth is needed in order to assess the ongoing issues. Communication with the team is essential in the proper management of medications. Reviewing the medical and clinical progress notes is critical as the treatment provider formulates recommendations for care. Feedback from all levels of providers regarding youth behavior is helpful. All providers should observe, monitor, and record data to assist in determining the effectiveness of medication. Each individual is unique and have mental illnesses that fluctuates in terms of severity, symptomatology; managing symptoms is a dynamic process. Generally influenced by genetic susceptibility and environmental issues, youth with special needs require a range of interventions, such as initial psychiatric evaluations, psychiatric consultations, psychiatric consultations in crisis, medication management, and individual therapy. Not understanding these susceptibilities, oftentimes leads youth to self-medicate with illegal substances to treat their psychiatric symptoms and to bolster their self-image by enacting criminal behavior. However, most are unaware that the use of alcohol and drugs counteracts any psychotropic medication, further aggravates symptom severity and complicates matters.

Prescribing psychoactive medication involves determining information on the type, history, duration, frequency, and severity of the mental health disorder in the attempt to further outline the type of medication that may be best utilized. Assessments conducted by the psychiatrist should include questions, such as past medication history and its effect, determining allergies, reviewing available medication records, and consulting with previous physicians regarding the course of medication and side effects.

Transition Planning

Transition planning implies bi-directional responsibilities and requires collaboration among community providers. Some youth will be fully released to their families, while others may be stepped down to less restrictive programs. Efforts in the past to help youth transition from higher to less restrictive programs have only been as effective as the involvement of the program’s partnerships in the community. In order to move a transition planning system, the provider should be able to rely upon an integrated case management system to ensure that key individuals in all the relevant systems are involved. Coordinating the timing and delivery of services and assisting each youth and his/her family in extending services upon release are significant aspects of post-release programs.

Community reintegration and aftercare planning is ideally established at the outset of the stay within a juvenile correctional facility. This allows for well-planned community reintegration. In addition, responsibility and public safety is reiterated throughout the stay. Once it is determined that a youth is a candidate to be fully integrated back into the community, a juvenile risk assessment is administered. This refers to the likelihood of a youth’s continued involvement in delinquent behavior, once fully released to the community. The risk assessment for delinquency should be minimally utilized at the beginning and end of a youth’s stay in post-release programs.

In preparing juveniles with mental health disorders to re-enter the community, the following arrangements and linkages should take place:

1. Identify and contact community treatment agencies and providers who will be responsible for the implementation of services.
2. To the degree possible, have the juvenile and aftercare provider meet and discuss preliminary treatment goals.
3. Share critical information such as updated psychiatric and psychological evaluations to include risk to the community.
4. Prerelease planning with court personnel is critical as many of these juveniles have additional responsibilities to the court.
5. Transition of psychiatric services allows for continuity of medication.

To the extent that well planned reintegration and aftercare services are designed, the likelihood of smooth transitions is enhanced.

Facility Programs and Interventions

The literature on programs for juveniles involved in corrections facilities is limited compared to the extensive literature that has been developed over the past decade on evidence-based "blueprint" intervention models for youth involved in community programs (Spencer & Jones Walker, 2004). Outcome studies of facility-based programs are rare (Josi & Sechrest, 1999).

Some programs have been utilized even though there is no evidence regarding their effectiveness. Others have not yet been utilized but have preliminary manuals because research to establish their value is underway. Nonetheless, there are now some innovative youth corrections programs available to practitioners in the field.

The programs described in this section were selected on the basis of a thorough search of the literature. Many programs are designed to address the multiple determinants of problem behavior. The authors of this article have selected facility programs with at least some known use in juvenile justice or adolescent clinical settings and some evidence of effectiveness. The selection of these programs does not define the best or most effective evidence-based practices in the field, only a representative sample. Therefore, practitioners should research programs to determine which evidence-based practices will be the best fit for them.

Family Integrative Transition (FIT)

In 2000, the Washington State Legislature directed the Department of Social and Health Services (DSHS) and the Juvenile Rehabilitation Administration (JRA) to develop a rehabilitation program for juvenile offenders who were sentenced to a state juvenile justice placement. Trupin & Stewart (2003) designed and implemented this program that focuses on juvenile offenders with co-occurring (substance abuse and mental health disorders) disorders. Family Integrative Transition (FIT) addresses the needs of this population who pose a high risk for committing more crimes when released into the community with promising results. Studies compared recidivism rates for those juveniles who were not involved with FIT and those juveniles who were involved with Family Integrative Transition program. Forty percent of juvenile offenders who were not involved with FIT committed a new felony within 18 months of being released. For those who did participate in FIT, the recidivism rate dropped to 27 percent (Aos, 2004).

The FIT program is based on a combination of evidenced-based approaches, Multi-Systemic Therapy (MST), Motivational Enhancement Therapy (MET), Relapse Prevention, and Dialectical Behavior Therapy (DBT). It is a rigorous treatment program that begins two months prior to a juvenile offender’s release date and continues for four to six months while the juvenile re-adjusts back in to the community. For juveniles to be eligible they must be in a JRA institution, scheduled to be released into the care of a parole officer for at least four months, under 17 ½ years old, have a substance abuse or dependence disorder and any Axis I disorder, on medication, and residing in proximity of the institution. The program allows youth to engage in intense family and community-based treatment that addresses the many determinants of anti-social behavior. The FIT team is made up of four therapists including, a child
mental health specialist and a chemical dependency professional whose first and most important task is to engage the family in treatment. Once the family is engaged, the program attempts to facilitate and encourage behavioral changes in the juvenile’s environment, highlighting the systemic strengths of family, friends, neighborhoods, and schools (Aos, 2004).

**Mode Deactivation Therapy (MDT)**

Mode Deactivation Therapy (MDT) was developed in response to the difficulty in treating youth with high levels of co-morbidity, which resulted in ongoing resistance to current treatments modalities as well as being considered treatment failures in both the outpatient and residential settings. Apsche et al (2004) have demonstrated that MDT is effective in reducing aggression and suicidal ideations within this population. Through the synthesizing of an applied CBT methodology as well as Linehan’s work with Dialectical Behavior Therapy (DBT), MDT was developed for youth who displayed a reactive conduct disorder, personality disorders/traits, and Post Traumatic Stress Disorder symptomology. Apsche and his colleagues have demonstrated the effectiveness of MDT in reducing aggression, specifically with youth who display the aforementioned diagnostic traits (Apsche, Bass, Murphy 2004; Apsche & Ward 2004). Apsche & Siv (2005) further emphasize the need for an efficacious methodology by positing the development of personality disorder traits/features as a coping mechanism by these youth. This methodology encapsulates the needs of these youth who present with a complicated neglect, multi-axial diagnoses, as well as often being the victims of sexual, physical, and/or emotional abuse.

Mode Deactivation Therapy also includes a series of mindfulness exercises that are specifically designed for these adolescents. Exercises incorporated within the client workbook designed to allow the youth to practice the technique which helps ensure trust, reduce anxiety and increase commitment to treatment as it helps develop mindfulness skills for the youth. The mindfulness skills result in development of the youths heightened awareness of their fears, triggers and beliefs which helps, them to use this new coping strategies in place of the aggressive behaviors.

Several descriptive studies indicate that MDT has been more effective than standardized CBT in the treatment of this population of youth (Apsche & Ward, 2002). Mode Deactivation Therapy has also been demonstrated as effective in a series of case studies (Apsche, Ward, Evile, 2002 a & b; Apsche & Ward Bailey, 2003) and an empirical study which shows that it was more effective than standard CBT and social skills training (Apsche, Bass, Siv, 2005). Preliminary results of several recent case studies has shown MDT to be effective in reducing suicidal ideation and in reducing fire setting behaviors (Apsche & Siv, 2005, Apsche, Siv, Bass, 2005). The study of this methodology is important on several levels. The first level being the need to provide evidence based therapy for youth with deficits in multiple areas regarding their mental health issues. Kazdin and Weisz (2003) indicate how aggressive behaviors have an adverse effect not only on the adolescent but also in a variety of social settings such as academics, peer relations, and an increased contact with the juvenile justice system. Providing a methodology which allows increased progress with this difficult population as well as offering hope to both providers and clients is paramount for the benefit of both parties.

**Dialectical Behavior Therapy (DBT)**

Linehan (1991) developed Dialectical Behavior Therapy in an effort to effectively treat individuals with borderline personality disorder. Many providers have adapted DBT interventions for juveniles involved in corrections facilities. Dialectical Behavior Therapy posits that some individuals react to emotional stimulation abnormally due to their upbringing and certain, unknown biological factors. This program consists of two main components, weekly psychotherapy sessions and weekly group therapy sessions. Individual sessions address incidents that may have occurred during that week.
and conflict resolution skills. Group therapy sessions address interpersonal skills, emotional regulation, and tolerance/acceptance of distress, which are core components to an adolescent’s development. As mentioned above, DBT provides services to individuals who are diagnosed with borderline personality disorder. DBT focuses on decreasing a variety of behaviors. These behaviors range from being self-injurious, behaviors that interfere with therapy, response to quality of life, and responses to posttraumatic stress symptoms. However, DBT places emphasis on enhancing certain characteristics, such as self-esteem, acquiring additional goals, and learned behavioral skills from the group.

There have been some reports of positive outcomes from DBT treatment. Linehan (1991) has been actively replicating studies, utilizing DBT. In replicating her study, Linehan (1999) found that individuals, who received DBT treatment, displayed significant reductions in substance abuse, a significant increase in keeping individuals in therapy, and a significant increase in social and global conditions. Linehan (1991) discovered that adolescents, who received DBT, reported less crisis situations and a decrease in suicidal ideation.

**Aggression Replacement Training (ART)**

Perhaps, one of the most popularly used intervention strategies in youth corrections facilities is Aggression Replacement Training (ART). Aggression Replacement Training was designed for juvenile delinquents who perpetrated violent crimes against people or property. It is believed that many of these juveniles lack the interpersonal and social skills concerning the management of their anger and other mental health issues. This model assumes that much of the thinking processes of juveniles rely upon their concrete and egocentric ways of working through problems.

Aggression Replacement Training aims to correct negative attitudes, and therefore, equips youth to live more productive, healthy lifestyles. Three major components of ART training include: structured learning which targets the behavior; anger control training which targets the affective or emotional component; and moral education which targets the cognitive aspect of the individual (Glick & Goldstein, 1995). Each of these interventions aim at strengthening the juvenile’s self-confidence and at learning new and more socially accepted behaviors.

**Thinking Errors Approach (TEA)**

Thinking Errors Approach (TEA) (Yochelson & Samenow, 1976; Yochelson & Samenow, 1977) is a widely used technique that challenges the core beliefs and thoughts of juveniles. TEA outlines specific thinking patterns, which in a given constellation, can lead to criminal behavior. These thinking patterns are referred to as criminal thinking errors. Commonly seen thinking errors exhibited by juveniles with mental disorders are as follows:

- Victim Stance
- “I Can’t” Attitude
- Lack of a Concept of Injury to Others
- Failure to Put Self in Place of Others
- Ownership Thinking
- Exaggerated Pride
- Irresponsible Decision-Making
- Power Thrusting

This approach assumes that thinking is based on a private logic of dominating and controlling others and situations. The essence to this model of care is recognizing that juveniles’ thought process...
differs radically from other people who have not committed acts of aggression. Their thinking must be consistently challenged, and they must be held responsible for their distorted patterns of thought, that often act as excuses to violently act out or to mentally decompensate. Treatment providers encourage juveniles to identify their errors and record them in journal logs. Through group and individual counseling, juveniles begin to learn that their thinking patterns are the foundation to criminal behaviors and when challenged, these distorted thoughts can be eliminated.

**Relapse Prevention Models**

Relapse Prevention techniques have been used as baseline program elements for juveniles with mental illness. Relapse Prevention asserts that “there is no cure” and “maintenance is forever”. Models teach juveniles to learn to identify antecedents to their criminal behavior and their mental deterioration. These antecedents involve changes in affect, fantasies, thinking errors, cognitive distortions and offense planning.

When Relapse Prevention techniques are applied to juveniles with mental health disorders, it is based on the assumption that mental health emergencies are due to a cycle of behaviors, thoughts, and feelings that lead to further decompensation in the attempt to cope with the decompensation. Juveniles are taught to recognize their high-risk factors that place them at increased risk to decompensate. Juveniles are also taught about seemingly unimportant decisions that may place them in positions to lapse or negatively shift in their behaviors.

Specific skills and strategies are taught to juveniles regarding preventing relapse and how to handle it. Individual interventions and treatment plans are interlaced with external support systems to maximize early detection of problematic thoughts, feelings and behaviors.

The following are commonly used goals and objectives that may be part of a relapse prevention treatment protocol:

1. Juveniles will be able to define and explain the key components of relapse prevention.
2. Juveniles will discuss and list how relapse prevention components work together to prevent behavioral disruptive patterns.
3. Juveniles will be able to identify and list their high-risk factors.
4. Juveniles will be able to identify their mental health and behavior cycles.
5. Juveniles will be able to identify unhealthy behaviors that place them at increased risk to decompensate.
6. Juveniles will be able to identify avoidance and escape strategies for high-risk situations.
7. Juveniles will demonstrate their ongoing recognition and comprehension of relapse prevention concepts in group counseling.

Juvenile justice, mental health, substance abuse, and other human service systems must work collaboratively to address the multifactored domains of each juvenile offender’s life. In doing so, it is critical that appropriate and effective screening procedures and assessments with accurate diagnoses be completed when the juvenile first enters the system.

**Thinking For a Change (TFAC)**

In the late 1990’s, Glick, Bush, and Taymans (2001) developed Thinking for a Change (TFAC), a cognitive behavioral intervention for the National Institute of Corrections. The program incorporates cognitive approaches for changing delinquent behavior by restructuring juvenile offenders’ thinking (e.g. antisocial attitudes, values, or principles) and teaching pro-social cognitive skills (e.g. ability to think
about the consequences and ability to work through problems) (Bush, Glick, & Taymans, 2001). Problem solving is the main focus of the curriculum and is enhanced by cognitive restructuring and social skills interventions. Cognitive restructuring guides offenders through a process of consciously examining their thoughts, and then making connections between their thoughts and the offenses they commit.

The curriculum is devised of 22 lessons with the idea of meeting weekly in a small group setting for one and a half to two hours, depending on the age group. In the first eleven sessions, cognitive restructuring concepts along with critical social skills are introduced and emphasized. Supported by cognitive self-change and social skill development, problem solving techniques are taught in lessons 16-21 (Bush, Glick, & Taymans, 2001).

**Motivational Enhancement Therapy (MET)**

Motivational Enhancement Therapy (MET) is based on principles of cognitive and social psychology. It seeks to evoke from clients their own motivation for change and to consolidate a personal decision and plan for change. This approach is mostly client centered and therefore the clients set their own goals. However, treatment providers may advise specific goals for juveniles.

The counselor’s primary role is to elicit and consolidate the client’s own intrinsic motivations for change. Treatment providers typically accomplish this through open-ended questions and reflection of juveniles’ issues rather than through the use of confrontational strategies or advice giving.

Content of MET sessions depends upon juveniles’ stage of motivation. Prochaska and colleagues (as cited in Carroll, 2000) described four stages of change:

1. Precontemplation, in which the youth is not considering change at all.
2. Contemplation, in which the youth is ambivalent, considering the pros and cons of changing the behavior.
3. Determination, where the balance leans in favor of changing behavior and the youth begins considering options.
4. Action, which involves the youth taking specific steps to change the behavior.

The counselor can determine the topics of each session, but the content should be provided by the youth in treatment. Examples of common topics include, weighing the positives and negatives of the behavior, giving reasons to stop or change behavior, and brainstorming ideas about how change can happen. MET is usually brief and limited to two to four hourly sessions, but is very effective (Carroll, 2000).

**Summary**

A significant number of juveniles with mental health disorders are involved in the juvenile justice system. Between 50 to 75 percent of all juveniles who enter the justice system has diagnosable mental health issues (Coalition for Juvenile Justice, 2000). Due to the result of this growing population, juvenile courts now expect that mental health treatment will be provided for youth while in juvenile correctional facilities. However, historically, the justice system does not have the capacity to provide effective mental health care. This creates a burden on the juvenile justice system as these administrators are hampered by inadequate approaches and practices for managing and treating this population. Nonetheless, the increase of juveniles with mental health disorders in the justice system has encouraged careful analyses of the development of newly emerging treatment strategies. In light of the concerns presented, this article reviewed the critical factors in mental health programming for juveniles in youth corrections facilities and provides recommendations for further development of treatment.

There is confusion between definitional and diagnostic concerns that further complicate matters.
Part of this intricacy may be due to the multiple uses and definitions of the term mental health disorders. To enhance the deliverance of consistent and universal treatment strategies, Underwood and Berenson (2001) proposed a categorical approach to mental health. They take into account what is scientifically known about the clinical profiles and the varying degrees and manifestations of mental illness that juveniles present when entering the juvenile justice system. Each class of disorders has unique characteristics that must be addressed to allow comprehensive treatment for the purpose of reducing the risk of future mental health crisis and criminal behavior.

Youth in the juvenile justice system run a high risk for future development of problems that may lead to further emotional deterioration and delinquency. Proper interventions must be administered to these youth that focus on risk factors that can be changed (i.e., behaviors, attitudes). The challenges we have reviewed serve as a framework to contribute to the emerging body of information on risk factors and mental health program services for juveniles in youth corrections facilities.

When providing treatment services to juveniles with mental health disorders standard guidelines and a code of ethics must be established as juvenile correctional systems meet the challenges posed by this population. Treatment protocols must be reliable, validated by research, and culturally sensitive in content while maintaining inherent therapeutic integrity.

After a thorough review of the literature, we selected community programs with at least some known use in juvenile justice or adolescent clinical settings and with some evidence of effectiveness. Since the literature on programs for juveniles involved in corrections facilities is limited, some interventions have been utilized in the juvenile justice system even though there is no evidence supporting their effectiveness. Other programs that have been developed have not been implemented because research to establish their value is underway.

Future studies are needed to determine the effectiveness of treatment models in the juvenile justice system. Studies should be conducted periodically throughout the first three years of a juvenile’s release. Focus should comprise of the number, if any, and classification of violations. Peer association, school attendance, substance abuse, attitude towards delinquent behavior, employment history, and family functioning should be included as well. Characteristics of treatment programs should also be evaluated in order to identify the ones that will most likely produce ideal outcomes for each targeted behavior.

The juvenile justice system is not equipped to handle the demands that juveniles with serious mental illness entering the justice system require. To help juvenile justice administrators treat this population, more research is required.

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