

## **A Comparison of Two Treatment Studies: CBT and MDT with Adolescent Male Sex Offenders With Reactive Conduct Disorder and/or Personality Traits**

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This paper compares the results of two separate published studies regarding adolescent males with conduct disorders and/or personality disorders/traits. Both studies were published in the Behavior Analyst Today, Vol. 3, No. 4, Vol 5, No. 1, respectively. The concept is to evaluate two treatment research studies that represent “the best” practices for each intervention. The first paper in this comparison represented a group of 10 adolescents, treated with a manual-based cognitive behavior therapy (CBT) called Thought Change. The results of the study were promising at the time of the publication. The second paper was a group of 10 adolescent males at the same residential treatment center. There was one therapist who was involved in treatment in both studies, the first author of this paper. The second paper used mode deactivation therapy (MDT) (Apsche, Ward, & Evile 2001; Apsche & Ward 2002). Although both papers produced promising results, the potential usefulness of the comparison in the current paper is to examine what intervention might hold more promise for this typology of adolescents.

Keywords: Mode Deactivation Therapy; Cognitive Behavior Therapy; Thought change; Best practices; Adolescents with conduct and/or personality disorders.

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Examining the comparative data between two published studies, one CBT and the other MDT as a CBT was interesting for many reasons. Both studies were conducted at the same facility, a residential sex offender program for adolescent males and had the first author of this paper as one of the therapists.

The CBT study was completed first. Thought Change, the CBT methodology, was an effort to establish an effective manual-based treatment to address the complexities of the adolescent male sexual offender’s. MDT was developed to address the more reactive adolescents who were not successful in the regular CBT. The MDT individuals did not or could not complete the Thought Change (CBT) program and needed the methodology to be adjusted for their extreme dichotomous, emotional dysregulation and reactive aggression.

### **Cognitive Behavioral Therapy (CBT)**

Thought Change (TC) as a CBT methodology was designed to treat a conglomerate of personality disorders. The treatment of the higher risk, aggressive sex offender focuses on specific deviant sexual arousal and antisocial sub-structure. For the same-sex offender of young children who continues to show deviant interest in young victims, Thought Change addresses the specific indices of this sub-group. Thought Change explores deficits in self-esteem, social competency, and frequent depression. Many of these youths display severe personality disorders with psychosexual disturbances and high levels of aggression and violence; therefore, Thought

Change also focuses on the specific individual indices of these issues by identifying and modifying the complex system of beliefs.

The Thought Change curriculum consists of a structured treatment program, which addresses the dysfunctional beliefs that drive sex offending behaviors. Topics in the Thought Change curriculum include the following: Daily Record of Negative Thoughts, Cognitive Distortions, Changing Your Thoughts, Sexual Offense System, System of Aggression and Violence for Sex Offenders, Moods (how to change them), Beliefs (how it all fits together), Responsibility, Health Behavior Continuum, Beliefs and Substance Abuse, Beliefs and Empathy, The Beliefs of the Victim/Offender, The Victim/Victimizer, and the Mental Health Medication System. The sections of the Thought Change Workbook are designed to progress sequentially through therapy. It is a record of dysfunctional beliefs prior to, during, and following the sexual offense.

#### Mode Deactivation Therapy (MDT) as a Cognitive Behavioral Therapy (CBT)

The focus of MDT is based on the work of Aaron Beck, M.D., particularly his recent theoretical work, the system of modes (Beck, 1996, Alford & Beck, 1997). Other aspects of MDT have been included in the Behavior Analytic literature, such as Kohlenberg and Tsai (1993), Functional Analytic Psychotherapy (FAP), as well as, Dialectic Behavior Therapy (DBT) (Linehan, 1993). The specific application of MDT and applied methodological implications for MDT with specific typologies is delineated by Apsche, Ward, and Evile (2002). The article also provided a theoretical study case study that illustrates the MDT methodology.

Beck, Freeman and Associates (1990) suggested that cognitive, affective and motivational processes are determined by the idiosyncratic structures or schema that constitutes the basic elements of personality. This is a more cognitive approach suggesting that the schema is the detriment to the mood, thought, and behavior.

Beck (1996) suggested that the model of individual schemas (linear schematic processing) does not adequately address a number of psychological problems; therefore the model must be modified to address such problems. Working with adolescents who present with complex typologies of aberrant behaviors, it was necessary to address this typology of adolescents from a more "global" methodology, to address their impulse control and aggression.

Alford and Beck (1997) explain that the schema typical of personality disorder is theorized to operate on a more continuous basis; the personality disorders are more sensitive to a variety of stimuli than other clinical syndromes.

Further study of cognitive therapy emphasizes the characteristic patterns of a person's development, differentiation, and adaptation to social and biological environments (Alford &

Beck, 1997). Cognitive theory considers personality to be grounded in the coordinated operations

of complex systems that have been selected or adapted to insure biological survival. These consistent coordinated acts are controlled by genetically and environmentally determined processes or structures termed as “schema.” Schemas are essentially both conscious and unconscious meaning structures. They serve as survival functions by protecting the individuals from the trauma or experience. An alternative and more encompassing construct is that of modes and suggest that the cognitive schematic processing is one of many schemas that are sensitive to change or orienting event.

Beck (1996) describes the notion of modes as a network of cognitive, affective, motivational, and behavioral components. He further described modes as consisting of integrated sections or sub-organizations of personality, which are designed to deal with specific demands. Beck continues to describe “primal modes” as including the derivatives of ancient organizations that evolved in prehistoric circumstances and are manifested in survival reactions and in psychiatric disorders. Beck (1996) also explains that the concept of charges (or cathexes) being related to the fluctuations in the intensity gradients of cognitive strictures.

Modes provide the content of the mind, which is reflected in how the person conducts their perspectives. The modes consist of the schemas (beliefs) that contain the specific memories, the system on solving specific problems, and the experiences that produce memories, images and language that forms perspectives. As Beck (1996) states disorders of personality are conceptualized simply as “hypervalent” maladaptive system operations, coordinated as modes that are specific primitive strategies.

Although the operation of dysfunctional modes in the present state is maladaptive, it is important to note that they were developed over time for survival and adaptation. These systems prove to become maladaptive as problematic behavior result in destruction.

#### Mode Activation

Beck (1996) introduced the concept of modes to expand his concept of schematic processing. He suggests that his model of individual schemas (linear schematic processing) does not adequately address a number of psychological problems; therefore, he suggests the system of modes. Beck (1996) described modes as a network of cognitive, affective, motivational and behavioral components. He suggests that modes are consisting of integrated sectors of sub-organizations of personality that are designed to deal with specific demands to problems. There is the sub-organization that helps individuals adopt to solve problems such as, the adaptation of adolescents to strategies of protection and mistrust when they have been abused.

Beck also suggests that these modes are charged, thereby explaining the fluctuations in the intensity gradients of cognitive structures. They are charged by fears and dangers that set off a system of modes to protect the fear. Modes are activated by charges that are related to the danger in the fear →avoids paradigm. The orienting schema signals danger, activates or charges all

systems of the mode. The affective system signals the onset and increasing level(s) of anxiety. The beliefs are activated simultaneously reacting to the danger, fear → avoids and physiological system. The motivational system signals the impulse to the attack and avoids (flight or fight) system whereas the physiological system produces the heart rate or increases or lowers the blood pressure, the tightening of muscles, etc.

Modes are important to the typology of high risk adolescents in that they are particularly sensitive to danger and fear, serving to charge the modes. The understanding of conscious and unconscious fears being charged and activation the mode system explains the level of emotional dysregulation and impulse control of the typology of adolescents that we treat.

To address the schema processing based on thoughts and beliefs without understanding the modes is insufficient and does not explain the specific adolescent typology referred to in Mode Deactivation Therapy.

Underlying the MDT methodology is the Case Conceptualization. MDT Case Conceptualization is a combination of Beck's (1996) case conceptualization and Nezu, Nezu, Friedman, and Haynes's (1998) problem solving model, with several new assessments and methodologies recently developed. The goal is to provide a blueprint to treatment within the case conceptualization.

The MDT Case Conceptualization methodology provides the framework to assess and treat these complicated typologies of adolescents and integrates them into a functionally based treatment. The goal is to deactivate the Trigger → Fear → Avoids → Compound Core Beliefs mode and teach emotional regulation through the balancing of beliefs.

Mode deactivation therapy is built on a mastery system. Adolescents move through a specifically designed Workbook at the rate of learning that accommodates their individual learning style. The system is designed to allow the adolescent to experience success, prior to undertaking more difficult materials. Through the MDT Case Conceptualization and MDT Workbook, the system allows the adolescent to systematically address the underlying conglomerate of personality disorders as well as, the specific didactics necessary, the problem behaviors and/or anger/aggression. Mode deactivation therapy is designed to address and treat this conglomerate of personality disorders, as well as remediate aberrant behaviors. It is important to note that mode deactivation therapy is an empirically based and driven treatment methodology. Carefully following the MDT Case Conceptualization and methodology ensures empirically based and driven treatment (Apsche & Ward Bailey, 2003, in press).

Additionally, mode deactivation therapy (MDT) includes imagery and relaxation to facilitate cognitive thinking and then balance training, which teaches the adolescent to balance his perception and interpretation of information and internal stimuli. The imagery is implemented to reduce the external stimulation of the emotional dysregulation, which is the basis for the underlying

typologies of these adolescents. Many of their underlying behaviors include aggression (both physical and verbal) as well as addiction and self-harm. MDT can be applied to couples as well as family therapy to provide a systems oriented approach. It is important to note that MDT is an intensive intervention that requires daily contact and monitoring between the MDT treatment team and the client.

### Efficacy of MDT

Apsche, Ward, & Evile (2002) have suggested that the systematic approach of MDT has had positive results in reducing aberrant behaviors and beliefs of adolescents. Apsche & Ward (2002) have also reported positive descriptive results of MDT as compared to cognitive therapy in a descriptive, empirical but not comparison study. The study compared two groups of adolescent sex offenders who received different types of therapy. One group received therapy as usual (TAU), a cognitive behavior therapy approach, while the other group participated in MDT. These adolescents had prior unsuccessful treatment outcomes. The two groups were followed through their lengths of stay in residential treatment (mean 16.36 months). At their twelfth month of treatment, both groups were tested, revealing that the group participating in MDT had lower scores on all measures when compared to the TAU group. Groups were measured on the Child Behavior Checklist (CBCL), Devereaux Scales of Mental Disorders (DSMD), Juvenile Sex Offender Adolescent Protocol (J-SOAP), and Fear Assessment. Groups were also measured on behavior points earned, and need for restraints/seclusions. MDT participants' scores on the CBCL were at least one standard deviation below the TAU group on all scales and scores on the DSMD were at or near one standard deviation below the TAU group, indicating a decrease in symptoms. The MDT group scores on the J-SOAP indicate a significantly lower level of risk to the community than the TAU group. The MDT group resulted in fewer restrictions and precautions for at-risk behavior than the TAU group. Additionally, results indicate that the MDT group had significantly less aggressive and destructive behaviors than the TAU group.

Apsche & Ward (2002) found that MDT reduced personality disorder/trait beliefs significantly and taught the individual to self-monitor and balance their personality disorder beliefs. The study also found a reduction of internal distress, resulting from various psychological disorders, as well as a reduction of sex offending risk in the group that participated in MDT. Overall, the study indicates that treating this typology without addressing the underlying compound core beliefs; appears to be related to recidivism.

### **Similarities and Differences between CBT and MDT**

There are many similarities and differences between CBT and MDT. The following table is presented to further demonstrate the similarities and differences between CBT and MDT.

	<b>MDT</b> (Apsche & Ward Bailey, 2003)	<b>CBT</b> (Beck, et al., 1990)
Goal oriented treatment	Yes	Yes
Focus on treatment	Present, in-vivo work in sessions	Initially present focused
Session structure	Yes, but flexible	yes
Session limitation	Flexible	Aims to be time limited
Cognition	Unconscious & conscious	Conscious
Collaboration between therapist and client	Yes-Empower patient to modify underlying beliefs to thereby change moods and behaviors (deactivate modes).	Yes - Uses variety of techniques to change thinking, moods, and behaviors.
Therapeutic alliance important	Yes	Yes
Addresses resistance	Yes	Yes
Empowers client to be own therapist	Yes	No-Assumes patients will comply with treatment
Thoughts/beliefs as dysfunctional	Yes	Yes
Cognitive distortions	No- Beliefs are not thought of as dysfunctional, which invalidates the patient's experience. Beliefs are validated as being crated out of a patient's experience, than are balanced to deactivate modes.	Yes- Teach patient to identify, evaluate, and respond to their dysfunctional thoughts and beliefs with schema assumptions (scanning)
Dialectical thinking	No- thoughts/beliefs are not distortions since they are based on past experience	Yes

Case conceptualization	Yes- Focus on balancing	No
Case conceptualization is specific typology driven	Yes- ever-evolving and drives treatment	Yes ever-evolving formulation of the patient's problems in cognitive terms
Acceptance and validation in the moment	Yes	No - more _____ derived
Modes	Yes	No
Triggers important	Yes- Perceptions trigger physiological cues, which trigger beliefs (entire process is mode activating)	No
Client's perceptions important	Yes- Learning the triggers is key to preventing activation of modes.	
Reducing anxiety, addressing trauma	Yes- Perceptions trigger modes	No - Perceptions are distorted
Fears → avoids paradigm	Yes- Uses exposure to fear cue to decrease perception of fear	No- Focuses on thought-feeling-behavior connection
	Yes	No

MDT was developed as an extension of CBT. The CBT as presented in this paper was adapted to the specific facility by the first author of MDT. MDT was developed in order to find a methodology that might be successful with treatment resistance and/or failures with standard CBT methodologies.

CBT versus MDT Comparison Study  
Thought Change (CBT) Participants

Ten male sexual offenders from a residential sex offender treatment program for adolescent males (6 African-Americans, 2 Eskimo-Americans, 1 European-American, and 1 Hispanic

American) between ages 11 and 18 years ( $x=13.5$ ) participated in the Thought Change Program. Accumulated data from prior positive treatment outcomes at the treatment center has demonstrated that the Thought Change Program is an empirically supported cognitive-behavioral based treatment. All participants were first-time admissions to the program and had never participated in a cognitive-behavioral based sexual offending treatment program before. Informed consent including the tasks involved, and participants' rights was reviewed. Both verbal and written consent was obtained from the participants. Their mean estimated length of stay was 18.3 months ( $SD=3.53$ , range 12-23), mean estimated number of victims was 2.4 ( $SD=3.4$ , range 1-12). Types of offenses included indecent exposure, fondling, vaginal and anal penetration, or a combination.

#### MDT Participants

All participants (10) were first-time admissions to the program and had never participated in a cognitive-behavioral or mode deactivation based sexual offending treatment program before. Informed consent including the tasks involved and participants' rights reviewed. Both verbal and written consent was obtained from the participants. Their mean estimated length of stay is 16.36 months ( $SD=1.73$ , range 12-19), mean number of reported victims is 3 ( $SD=3.16$ , range 1-13). Types of offenses included indecent exposure, fondling, vaginal and anal penetration, or a combination.

#### Measures

Four assessments were used to measure the behavior of the residents, which included the *Child Behavior Checklist* (CBCL; Achenbach 1991); the *Devereaux Scales of Mental Disorders* (DSMD: The Devereux Foundation, 1994), the *Juvenile Sex Offender Adolescent Protocol* (J-SOAP; Prentky, Harris, Frizzell & Righthand, 2000) and the *Fear Assessment* (Apsche, 2000).

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 50 and a standard deviation of 10; a score of 60 or higher indicates an area of clinical concern.

The J-SOAP is an actuarial risk assessment protocol for juvenile sex offenders. The total scores, which includes the sexual drive/preoccupation factor score, impulsive-antisocial personality factor score, clinical/treatment factor score, and community stability/adjustment score is calculated to determine the individual's level of risk to the community.

It is important to remember that this is a treatment facility and these data reflect the results

of treatment comparisons not a research protocol. Residents were assigned to MDT after failing in or not responding to CBT treatment. The treatment group engaged in Mode Deactivation Therapy and the CBT participated in manualized CBT (Thought Change). The following were assessed: (a) Behavioral and emotional problems, including psycho pathology, (b) strengths and types of fear, (c) behaviors and ideation observed by clinical staff, and (d) level of risk to the community.

#### Child Behavior Checklist

The CBCL means and standards are divided into three categories: internalizing, externalizing, and total problems. In comparison to the TAU group, the MDT group mean scores on all scales at least one standard deviation less.

#### Devereux Scales of Mental Disorders

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 following four scales were analyzed: (1) Externalizing, which indicates prevalence of negative overt behaviors or symptoms, (2) Internalizing, which measures negative internal mood, cognition, and attitudes, (3) Critical Pathology, which represents the severe and disturbed behavior in children and adolescents, and (4) Total, which indicates a conglomerate of all scores including general Axis I pathology, delusions, psychotic symptoms, and hallucinations.

The results indicate that the mean scores the externalizing factor, internalizing factor, critical pathology, and total score for the MDT group is at or near one standard deviation below the CBT group.

#### Juvenile Sex Offender Adolescent Protocol (J-SOAP)

The total score representing level of risk to the community is significantly lower for the MDT group, than the CBT group. The mean score of the MDT group reflects a low level of risk to the community and the TAU mean score reflects a moderate/high level of risk to the community. According to the J-SOAP scores that range from 0-12 are low risk, 13-28 are moderate risk, and 28+ is high risk.

Another important aspect of the J-SOAP is the clinical/treatment factor score. This indicates the individual's internal motivation, acceptance of responsibility, understanding of the sexual assault cycle, and level of empathy. Results indicate that mean score of the MDT group is significantly lower than the CBT group, as illustrated on the table.

#### Results

At the time of assessments, the two groups differed significantly. Residents who

participated in MDT had lower scores on all measures than did residents who engaged in Thought Change (CBT).

## Discussion

The results of this comparison of published “best data” from CBT and MDT suggests that MDT is more effective than CBT for adolescents with conduct disorder and personality beliefs or co-morbid disorders and sexual offenses.

It is important to note that the CBT study and the MDT study shared one therapist. These studies were completed approximately 1 ½ years apart. MDT was developed to address many of the more difficult adolescent males who were not amenable to CBT and failed in CBT treatment.

The MDT group, for the most part, were individuals who were not able to complete treatment with a manualized treatment because of increased aggression and/or non-compliance.

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