Adapting Cognitive Behavior Therapy and Mindfulness for a child with Conduct Disorder: A Case Study

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Abstract **- Conduct Disorder is a debilitating condition that can be extremely challenging for parents, teachers and mental health professionals. The present case study describes the application of Cognitive Behavior Therapy and Mindfulness intervention program to the treatment of a 12-year-old boy diagnosed with CD. During 18-week treatment period, his maladaptive behavioral patterns significantly decreased and improvement in his mindfulness skills was reported. Specifically, Childhood Psychopathology Measurement Scale (CPMS) scores became subclinical at the 2, 4 and 8 week follow-up. There was also a clinically significant increase in Childhood and Adolescent Mindfulness Measure (CAMM). The single case study has implications for the treatment of CD and other mental health problems due to lack of generalization. However, it focuses on the need for interventions addressing mental health problems in individuals with maladaptive behavioral patterns. This case study suggests that CBT and Mindfulness is a promising primary and secondary prevention treatment for individuals with conduct disorders and should be further tested within this population.**

Index Terms **- Conduct disorder Cognitive Behavior Therapy, Mindfulness, Treatment.**

THEORETICAL AND RESEARCH BASIS FOR TREATMENT

Most children exhibit maladaptive and disruptive behavior at times due to either stress or fleet of events at home, school or their communities. According to Diagnostic and Statistical Manual of Mental Disorders (DSM-V) published by the American Psychiatric Association (APA; Mataix-Cols et al., 2010) Conduct Disorder (CD) is one of the important forms of mental health problems in children and adolescents. It is typically assigned to individuals under age 18, who tend to violate the basic rights of others or not conform to the age appropriate societal norms (APA, 2015). Children with CD often demonstrate behaviors that include aggression towards people and/or animals, deceitfulness, destruction of property, theft, and serious violation of norms (Murphy, Cowan, & Sederer, 2001). It is a disabling disorder that must cause clinically significant impairment in social, academic, or occupational functioning (APA, 2013). Children with CD have more challenges in areas of interpersonal relationships, academic achievement and substance use (Boesky, 2002). Due to their delinquent behaviors they are likely to be exposed to the Juvenile Justice System. Children exhibiting delinquent and aggressive behaviors have found to have distinctive psychological and cognitive profiles (Aderanti 2006). They often have deficiencies in cognitive and social processing and poor problem-solving. Specifically, they tend to overlook social cues, attribute hostile intentions to the behaviors of others, have difficulty formulating solutions to social problems, and expect reinforcement for aggressive behaviors (AACAP, 2007).

According to social factor model, a link has been established with disruptive, impulse-control, and conduct disorders. Other factors such as poverty, lack of infrastructure, community violence, and dysfunctional family environment have also been viewed to cause CD (Gupta & Jena, 2017). As per the cognitive behavioral model, CD results from deficits in social information processing and social skill deficits (Crick & Dodge,1994; Spivack & Shure,1982).

Cognitive-behavioral therapy (CBT) and Mindfulness applied to CD has shown success in treating individuals suffering from CD (Frost et al., 2010). However, attrition rates are often high and a number of counterproductive thoughts and behaviors interfere with therapy, such as poor facilities, lack of motivation and lack of compliance with CBT and mindfulness exercises lead to weak treatment effectiveness (Frost et al., 2010; Pertusa et al., 2010).

CBT can be defined as "treatments that attempt to change overt behaviour by altering thoughts, interpretations, assumptions, and strategies of responding" (Kazdin, 1978, p. 337).Mindfulness has been practiced for at least 2,500 years in the East. It is part of the gamut of Eastern physical, mental and spiritual health. In the West, meditational practices emphasized on making the introduction of mindfulness with its present moment orientation a new addition (Gupta, 2014). Mindfulness connotes awareness, attention, and remembering (Germer, Siegel, & Fulton, 2005). It refers to being aware of, and intentionally attending to ongoing experiences (Brown & Ryan, 2003; Kabat-Zinn, 2003). This present-moment awareness is believed to enhance affective balance and psychological well-being by preventing habitual reacting, and encouraging a more adaptive deliberate response to experiences (Baer, Smith & Allen, 2004; Segal, Williams, & Teasdale, 2002).

CBT and Mindfulness incorporates weekly individual therapy that allows a focused approach to addressing target behaviors. Complementing these individual sessions, its advisable that at least one parent/guardian is required to participate in the intervention group. The inclusion of family members has been found to have the following benefits: to alter the pattern of interchanges between the child and parent so that pro-social behavior is directly reinforced and supported within the family.

Previous research in the effectiveness of these treatment modalities with children gave rise to empirical evidence to support the usefulness of this treatment among children presenting with multiple mental health problems. For instance, Kendall & Braswell (1982) compared behavioral treatment, cognitive-behavioral treatment, and an attention control condition in a group of 27 children (8–12 years old) and found that the two treatment conditions were generally superior to the control condition, and the cognitive-behavioral treatment was slightly superior to the behavioral treatment.

Semple et al. (2010) assessed the impact of a 12-week school-based group program based on Mindfulness with 25 children aged between 9 and 13 year old who were struggling behaviorally and academically, using a wait-list randomized control group. Compared with control group children who had not yet experienced the program, significant improvements were found on measures of attention and reduction in anxiety, and in behavioral problems.

Another study reported that a combination of mindfulness, CBT and academic training over a period of 18 sessions had reduced the frequency of conduct disorder, improved academic performance at school and increased the overall well being of students within the age range of 9-12 years (Gupta & Jena 2018).

Despite the successful adaptations of CBT and Mindfulness, there prevails a need for more comprehensive psychotherapies addressing psychological problems in individuals with conduct disorder. Focusing on its core principles and fundamental structure, CBT and Mindfulness for children required some modification to suit the unique needs of the child presenting with conduct disorder. In the present research, strategies were modified to suit the individual's needs for behavioral and cognitive levels.

Despite these encouraging results, the literature on CBT and mindfulness in individuals with conduct disorders in Indian population is limited. Thus, this case study intends to add to the limited literature by offering a structured intervention comprising of CBT and mindfulness for children with conduct disorders.

Due to the prevalence of psychosocial and cognitive challenges, it is recommended that individuals with CD receive a comprehensive intervention that includes CBT and mindfulness to address behavioral and social difficulties as they arise.

The case study presented here is of a participant who received CBT and mindfulness therapy. Steps of the therapy are detailed as well as the progresses of therapy over sessions are discussed.

CASE INTRODUCTION

A twelve year old boy, Abhishekh was reported to be disruptive and inattentive in the classroom and at home. Abhishekh lived with his parents and three brothers in one of the slums in South Delhi. His father worked as a mechanic while his mother stayed at home and took care of the house. Abhishekh's elder brother reported that he did not pay attention to his studies and usually failed in all subjects. He spent most of his time playing, or working as a laborer for casual wages, and never completed his homework.

PRESENTING COMPLAINTS

Abhishekh frequently exhibited verbal and physical aggression, inappropriate laughing and giggling, and indulged in destroying objects such as pens, pencils, books and other materials.

During the interview, Abhishekh revealed that he was often beaten by his parents for displaying bad behavior (abusive language, verbal and physical aggression). He said that he felt ignored and said that no one loved him. He indicated a reluctance to interact with the group because they teased him about his father being an alcoholic. He did not have many friends, and was close to only one of his classmates, along with whom he often looked for work as a laborer, in order to earn some money. He said that often his misconduct interfered with his daily activities and social interactions.

During the pretreatment evaluation, Abhishekh was observed engaging in physical aggression (e.g. kicking, pushing, pinching, slapping, pulling and spitting) and provoking other participants to the point of physical fighting. He caused property destruction such as tearing up objects, damaging material and banging objects together. Abhishekh often escaped a given task by trying to twist the truth to his advantage. He neglected his responsibilities, and continually argued without purpose. He did not obey commands, and insisted on doing the opposite of what he was told to do. He sometimes exhibited odd behaviors such as laughing inappropriately, making faces and swaying and rocking his body. He was disinterested in the activity taken up in the sessions, had a high opinion of himself and was easily distracted.

However, he did not have a healthy interaction with his peer group, and it was noticed that he provoked the other participants, sometimes laughing inappropriately, and was soon fighting, abusing, and hitting the other participants. He did not follow instructions to behave himself, to concentrate on his work, or just sit quietly. He was easily distracted during the assessments, showing more interest in what others were doing and often fidgeted in his seat. He was also forgetful and often failed to bring his books and textbooks with him.

HISTORY

Abhishekh stated that his problem began when he was nine year old. Since then, he said that he tried many times to control his misbehavior and his anger but he couldn't do so. He understands that his problem is affecting his interactions, interpersonal relationships and his school achievements.

Abhishekh presented significant conduct behaviors specifically, he stated that he avoided his peer group as he knew he would lose his temper and engage in a fight. He said that his frustrations of not having friends and not being able to perform in academics are making him feel inadequate.

Abhishekh said that he and his brothers have always been beaten up by their alcoholic father many times. Sometimes it was without any reason and at times it was due to bad behavior. As a consequence he has become irritable and aggressive. He feels that's its normal to engage in such abusive behavioral patterns. He also expressed that he found initiating conversations very difficult, as he felt inadequate.

Prior to this study, he expressed that he has never been subjected to any sort of guidance/counseling or psychotherapy. He has always been criticized for his behaviors but no one has actually done anything to guide him in proper direction. Furthermore, he mentioned that his expectations related to therapy was to live happily, be more calm, reduce his aggression and be at peace. He also expressed his desire to make new and long lasting friends.

ASSESSMENT

Abhishekh was assessed by an independent clinical evaluator at pre, mid and post treatment, and 8 week follow-ups. Semi-structured interview, Child and Adolescent Mindfulness Measure (CAMM; Greco, Baer, & Smith, 2011) and Childhood Psychopathology Measurement Scale (CPMS; Malhotra et.al. 1988) were administered on the child. The measures employed to assess the child were chosen because they represent the target behaviors chosen for the study. CAMM and CPMS were administered thrice on the child and average score was chosen as the final score. This was done to control the chance and situational factors, if any.

This combined procedure was used first to set the baseline, then during the treatment phase after 6 and 12 interventions sessions to monitor the effects of the intervention, and thereafter to establish the post treatment results after completion of 18 treatment sessions. The process was also used for evaluating the post treatment condition after 2, 4 and 8 weeks.

Prior to his treatment, his score on CAMM was 10.33 showing poor Mindfulness skills. In CPMS he scored 17.67, which is suggestive of clinically significant behavioral problems.

Abhishekh underwent 18 intervention sessions, consisting of 9 sessions each of CBT and Mindfulness, each session lasting 45-50 minutes each. Daily dairies were completed everyday for the duration of the therapy program to measure the changes experienced by the child. The assessment procedures were repeated after 6, 12 and 18 sessions to ascertain the changes in the therapy were due to the treatment introduced by the therapist. After the 18th intervention session which served as the last session, the assessment procedures revealed a significant decrease in all measures was observed.

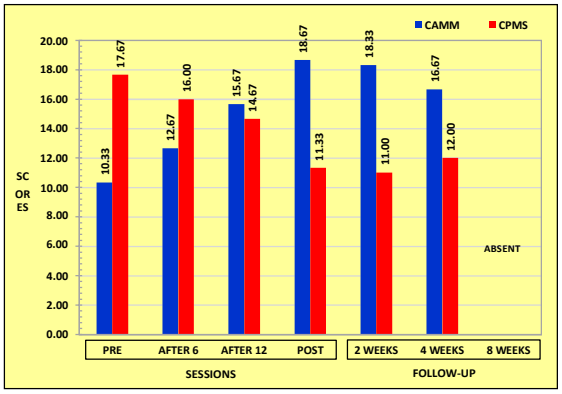

Figure 1. Pretreatment, during treatment, post treatment and follow up scores on psychometric tests.

The results indicate that the client had shown a significant improvement in the conduct behaviors reported by self and his caregivers.

CASE CONCEPTUALIZATION

This presentation of Abhishekh's clinical case corresponds to a diagnosis of conduct disorder. His maladaptive behavioral patterns, lack of social skills, tendency to physically and verbally aggress were the major reasons for his eligibility for the therapy. A detailed explanation of the case follows this section.

COURSE OF TREATMENT AND ASSESSMENT OF PROGRESS

The therapy protocol was composed total of 18 intervention sessions, consisting of 9 sessions of each CBT and mindfulness. Consistent with the framework of CBT and mindfulness, Abhishekh was enrolled in weekly individual therapy, led by a CBT and mindfulness trained psychologist. Assessment measures were taken during the therapy that is after 6 and 12 sessions and at the end of the therapy, namely, after 18th session. Follow ups were taken after 2 and 4 weeks post treatment.

It was assumed that the conduct behavior might be maintained by the environmental factors and the confusing cognitive distortions present in the child. First, the trigger from the environment generates a cognitive distortion followed by the maladaptive behavior. For example, when Abhishekh would go to school, his classmates would make fun of him (trigger) and he would then feel inadequate and over-generalize the situation. This further provoked the feelings of agitation and unrest in him leading to abusive or destructive behavioral patterns. It was important to understand that Abhishekh's internal narrative played a significant role in the development and maintenance of conduct disorder. This narrative is based on important reasoning biases such as selective use of out of context facts where abstract facts are inappropriately applied to specific personal contexts to justify the maladaptive act.

CBT is an important therapeutic paradigm as it has been shown repeatedly to be an effective intervention for a wide variety of psychological problems. It is founded on three fundamental propositions: (1) Cognitive activity affects behavior; (2) Cognitive activity may be monitored and altered; and (3) Desired behavior change may be effected through cognitive change. The primary goal of CBT is to modify maladaptive emotional, cognitive and behavioral responses to one's environment (Krain & Kendall, 1999).

The therapist employs observation, parent and teacher reports, child self - assessment and formal testing to obtain information about the child's behavior. The information is used to postulate the causes, influences, and consequences of the child's problems with a focus on the intervention (Krain & Kendall, 1999). Since maladaptive information processing is conceptualized to be at the core of behavioral and emotional difficulties, CBT incorporates alternative cognitive, behavioral and emotional strategies for children to make sense of the world. The initial steps of CBT include increasing the child's awareness of his or her thoughts and how they influence behavior and

emotions (Krain & Kendall, 1999). Children are taught to monitor their thoughts and to apply various techniques to alter them.

Abhishekh was made to identify and label his automatic thoughts. The focus was to encourage the child to understand the difference between thoughts and emotions. The next step taught to him was disputing; the purpose of this session was to break the vicious cycle of negative thoughts by challenging the negativity. Abhishekh was also taught developing alternative thought patterns it is one of countering, or stating the opposite of the automatic thought. Problem Solving, Goal setting and Decision making were also discussed with the child. Since Abhishekh lacked the ability to present himself in an appropriate way, social skills training was also addressed.

Nine sessions were also given to Mindfulness therapy. Mindfulness connotes awareness, attention, and remembering (Germer, Siegel, & Fulton, 2005). It refers to being aware of, and intentionally attending to ongoing experiences (Brown & Ryan, 2003; Kabat-Zinn, 2003). Such present-moment awareness is believed to enhance affective balance and psychological well-being by preventing habitual reacting, and encouraging a more adaptive deliberate response to experiences (Baer, Smith & Allen, 2004; Segal, Williams, & Teasdale, 2002). The practice helps to redirect attention rather than control or suppress intense emotions. Mindfulness alone is not sufficient to attain happiness, but it provides a solid foundation for other important factors such as alertness, concentration, love, kindness and effort to alleviate suffering (Rapgay & Bystrisky, 2009). Mindfulness approaches may be suitable interventions for anxiety, depression, and conduct disorder, to enhance cognitive and academic performance (Semple, Lee & Miller, 2006). Teaching Mindfulness techniques to children creates the potential for greater self-awareness, improved impulse control, and decreased emotional reactivity to challenging events (Thompson & Gauntlett-Gilbert, 2008).

The mindfulness sessions were taken from the book 'Planting Seeds, practicing mindfulness with children' by Thich Nhat Hanh (2011) which focused on activities such as introduction to mindfulness where the purpose of this activity was to enhance the ability to listen to other people and avoid focusing on oneself all the time. Beginning Anew guided the child to focus on looking deeply and honestly at themselves, their past actions, speech, and thoughts, and helps them to create a fresh beginning within themselves and in their relationships with others. Abhishekh enjoyed walking Meditation where the participant's attention on the actual actions they perform while walking (lifting each foot, feeling the ground etc). In waterfall meditation the importance of relaxation in daily life was taught and he was taken through a guided relaxation. Abhiskekh performed raisin meditation as well where the focus was on the child becoming aware of his senses (taste, sight, hearing, touch and smell). The purpose is to make the child concentrate on one activity at a time, rather than multitasking.

After the initial 6 intervention sessions, Abhishek's CAMM score improved showing a positive change in Mindfulness skills and awareness. His CPMS score reduced, showing that his parents thought that there was some improvement in his behaviour.

After 12 interventions sessions, psychometric testing showed improvements in both the parameters. Abhishekh had started attending the intervention sessions regularly and had started to make an effort to apply the strategies being taught in the sessions, especially with respect to Mindfulness skills.

Post intervention data collected after the 18 sessions of intervention revealed significant improvement in behavioural scores. His CAMM score had improved by 80.74% from the pre intervention level and his CPMS score had improved by 35.88%.

CBT and Mindfulness was delivered by a trained psychologist in both these therapies. Constant verbal feedbacks were taken during the therapy sessions. Abhishekh stated that he was happy with all the aspects of the therapy and the therapeutic relationship he had with his psychologist.

COMPLICATING FACTORS

Abhishekh demonstrated considerable motivation and high degree of insight throughout therapy. His level of motivation was evasluated based on his attendance and participation in the therapy as well as his desire to change. However, Abhishekh often did not complete the necessary homework exercises that were required of him. He gave the psychologist many reasons for the same. For example, he did not get time, there was lot of school work, he was tired and he did not feel like doing it. Such resistances were addressed in the sessions. As treatment progressed, it was clear that

Abhiskhekh's mother needed to play a larger role in scaffolding the therapy. However, Abhishekh's parents were unavailable for the parent training sessions, and Abhishekh's elder brother attended only one session due to work constraints, during which the researcher trained him about the suggested corrective parenting styles. Since his brother was himself occupied with his own work, he couldn't give much time to Abhishekh and the techniques taught were only infrequently enforced at home. However the elder brother did give a positive feedback after the intervention and was grateful for the improvement in Abhishekh's behavior. Such complicating factors could have affected his prognosis negatively.

Since the end of treatment, he has been capable of managing his maladaptive behaviors on his own.

ACCESS AND BARRIERS TO CARE

Minimal barriers to care existed in this particular case amongst several barriers that could hinder intervention. Specifically, intervention often can be costly and time intensive. Furthermore, it was critical for Abhishekh's parents to be willing participants in the completion of the successful intervention. Without the level of parent participation, emergence of other barriers may arise, such as parents having difficulty in managing the child, disruptive parenting styles, , and/ or when they fail to reinforce their child'spositive behaviors.

FOLLOW UP

Abhishekh was present only for the 2 and 4 week follow up and did not appear for the 8 week follow up, as he had shifted his base.

The psychometric scores at the 2-week follow-up showed a slight deterioration as compared to the post intervention scores. He told the psychologist that he was practicing Mindfulness on a daily basis, and felt calm after each practice. However, he reported that he often forgot to practice CBT techniques.

Four weeks after the intervention, Abhishek's psychometric scores deteriorated slightly more.

TREATMENT IMPLICATIONS OF THE CASE

This case demonstrated the effectiveness of CBT and Mindfulness on a child with conduct disorder. Given the low remission rates for CD, this intervention is particularly important for helping children to foster the skills necessary to manage their maladaptive behavioral patterns from start for better prognosis. Abhishekh was a motivated participant, which was probably a crucial factor in his treatment. He was generally able to be insightful regarding his problem. In fact, even after one session, he was capable of being objective toward his maladaptive behaviors.

This particular case was relatively novel in the existing literature given and how CBT and Mindfulness techniques could facilitate positivity and channeling of adaptive behaviors.

Another important consideration for effective CBT and Mindfulness intervention for CD is the adaptability of cognitive restructuring, behavioral strategies and mindfulness. Although commitment to the structure of any manualized intervention is necessary, this structure often requires modification to suit the needs of each individual. In particular, Abhishekh's intervention focused on social skills, anger outbursts and development of alternative solutions Overall, individualized, core CBT and mindfulness strategies were beneficial to Abhishekh in developing the adaptive behavioral patterns.

12. Recommendations to Clinicians and Students

This case report offers a preliminary account of CBT and Mindfulness for a child with conduct disorder. Given the pervasiveness of the impairments, it is essential for the treatment approach to be multidisciplinary in nature. In order to adapt CBT and mindfulness for Abhishekh, 18 intervention sessions were provided.

Secondly, this adaptation of CBT and Mindfulness revealed the significance of behavioral techniques for treating an individual with conduct disorders. It was found that behavioral techniques were the primary source of change in behavior for Abhishkeh. The child was, however, able to perform simpler cognitive tasks such as identification of thoughts, disputing, emotion identification and recognizing the connection between feelings and behaviors. This is consistent with prior research applying CBT to individuals with CD (Gupta & Jena, 2018).

Finally, this case highlights the need for assessment tools validated in a sample of individuals with conduct disorder. The self report measures may not always be a good idea to screen an individual with a disorder. While this case study focused on treating an individual with CD, the adaptations noted here are applicable to

other mental health conditions as well. Individuals staying in slum areas with mental health issues tend to have fewer psychological resources (e.g. coping skills) and are at risk for facing stressors associated with the development of psychopathology. Despite this finding, there are limited psychotherapeutic approaches available to treating high-risk individuals with behavioral challenges. CBT and mindfulness provides a multimodal approach that permits for flexibility within the treatment targets. It emphasizes therapeutic techniques that skills that directly address the deficits of each unique individual being treated. This case study suggests that CBT and mindfulness is a promising treatment for individuals similar to Abhishekh and should be further tested within this population.

Declaration of Conflicting Interests

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