Cognitive-Behavioural & Parental Management Training in a Child with ADHD

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Abstract

Background: *ADHD is one of the most common disorders found in school going children. It is characterized difficulty in paying attention at task at hand, impulsivity and recklessness, restlessness and fidgeting in his/her environment. Such children are difficult to manage, leading to conflicts with parents, peers and teachers. Persistence of ADHD symptoms often lead to impairment in academic, interpersonal and socio-occupational functioning. Proper diagnosis and interventions significantly improve the functioning of the child. Multimodal treatment approach is the best model of management incorporating medical, psychosocial and rehabilitative services. In this case, however, cognitive-behavioural and parental management training approaches were used as main psychotherapeutic interventions to work with the child and his parents. Cognitive-behavioral therapy inclusive of parental management has proved to be beneficial. CBT techniques are used with the aim to help improve motor behaviour, impulsivity and inattention. Parental management training is used to teach the principles of behaviour therapy and use behaviour techniques with the child to improve his clinical symptoms, his compliance and parent's confidence in raising him, to improve the parent-child relationship by using good communication and positive attention to aid the child's functioning and other domains of life.*

Methodology: *In this paper, a single case pre -post design methodology was used. Conner's parent rating scale was used to assess the nature and severity of ADHD symptoms and Vineland Social Maturity Scale (VSMS) was used to assess socio-occupational and self-help skills functioning. Both pre and post therapy assessment was done to evaluate the therapeutic outcomes. Clinical judgement and evaluation was also done for better understanding of the clinical outcome subsequent to therapy. Detailed therapeutic sessions were conducted with both the client and the mother (as father could not come because of job schedule difficulties).*

Results: *Post therapy assessment, clinical observation and report by the mother clearly showed significant improvement in hyperactivity, improvement in sustained attention, and increased compliance and behavioural regulation in the child.*

Keywords: *ADHD, cognitive behavioural training, parental management training, reinforcement*

INTRODUCTION

ADHD is a syndrome first described by Heinrich Hoff in 1854. Earlier it was known as minimal brain dysfunction (MBD). It is one of the most common behavioural disorders in childhood. Some psychiatrists believe it to be a neurobehavioral developmental disorder. It starts during childhood and diagnosed once a child starts going to school.It is a condition which makes it challenging for an individual to focus on everyday request and routines. The problems faced by a child diagnosed with ADHD are generally not able to focus, difficulty making realistic plans, trouble getting organised, difficulty thinking before acting unable to adapt to changing situation. A person with ADHD is characterised by impulsive and restless behaviour such as difficulty to focus on one thing without being distracted, difficulty in controlling what he/she is saying or doing. They are noisy and fidgety at times, can also be socially inept or aggressive. Very often these children remain underdiagnosed as they are labelled as "just naughty".

Barkley's Model of ADHD

Executive functions are higher order, top down, cognitive processes that allow for appropriate maintenance and shifts facilitating a flexible pursuit of future goals. Russel Barkley (1997) proposed a neuropsychological model of ADHD. Barkley argues that a central deficit in ADHD is in response inhibition which is secondarily linked to five neuropsychological deficits namely working memory, internalization of speech, self-regulation of affect, reconstitution of motor control/fluency that are thought to be broadly representative of the more general concept of executive functions. He says that the general pattern of executive impairment associated with ADHD is grounded in more specific deficits in response inhibition which refers to the ability to inhibit an inappropriate prepotent or ongoing response in favour of a more appropriate

alternative. It is regarded as a pre requisite for self-control, emotional regulation and cognitive flexibility.

It is relatively a common disorder, occurring in about 3% of school children. Males are 6-8 times more often affected. It is of 4 types viz Attention deficit disorder with hyperactivity, Attention deficit disorder without hyperactivity, Residual type and Hyperkinetic disorder with conduct disorder.

Sarkhel,Sinha,Arora and DeSarkar (2006) reported that the prevalence of conduct and ADHD in Kanke,Bihar in 1,690 school children (with6.81% in boys and 1.85% in girls) was 4.58%. About73% had childhood onset while 27% had adolescent onset. Among the disordered children,36% had ADHD and 72.7% had difficult temperaments. Venkata&Panicker (2013) reported that the prevalence of ADHD among primary school children was 11.32%.they was also reported that the prevalence was higher among males (66.7%) as compared to females (33.3%). Twin studies have indicated that ADHD is highly heritable. The scientific community generally agrees that ADHD is biological in nature. Diagnosis is often made on the basis of teacher's school report, parent's report and clinical examination.

Cognitive-behavioral and Parent training is often employed in the management of a child with ADHD.. In this form of treatment, parents routinely receive on-going clinical supervision in the use of specialized child management tactics, primarily involving contingency management techniques. In some applications of PT, counselling parents about ADHD is included as well (Barkley, 1990). When such training is successful, parents are better equipped to manage their child's behaviour, especially at times when the effects of medication or other treatments are diminishing or absent.

While there certainly is evidence attesting to the efficacy of Parental management training for bringing about improvements in the home behavior of children with ADHD many questions remain as to its broader psychosocial impact (Dubey, O'Leary, & Kaufman, 1983; Gittelmanet al., 1980; Horn, lalongo, Popovich&Peradotto, 1987; Pelham *et al.*, 1988; Pisterman, McGrath, Firestone, & Goodman, 1989; Pollard, Ward, & Barkley, 1983), Of particular concern is that, in the vast majority of Parental management or training studies, outcome has been defined almost exclusively in terms of changes in child functioning, with attention to treatment-induced changes in parent and family functioning being the rare exception rather than the rule. What little evidence is available suggests that Parental Training can have a therapeutic impact on parents, at least in terms of self-reported increases in parenting self-esteem and reductions in overall parenting stress (Pistermanet al.,1992).

Cognitive-behavioral therapy (CBT) approaches for this disorder have emerged relatively recently and available evidence from open and randomized controlled trials suggests that these approaches are promising in producing significant symptom reduction.

Case Introduction

Master K S, 11 yr old, Male, Hindu, hailing from Jaipur, belonging to middle socio-economic status urban background. He was presented with the complaints of being restless, interrupts in between conversions, forgetting easily, not doing well in studies, not completing homework, leaving answer sheet blank and avoids writing with gradual onset and continuous course for the last 5 years approximately which was observed when he started going to school at the age of 5.

These problems have been there consistently throughout. The school teachers also complained the same since then. Parents reported that the child does not listen to them when it comes to studies and he is overactive most of the time. When asked to do any homework, he just sits for 5 minutes and leaves. Even when goes to tuition he does not study. He also showed anger outbursts when he is not given what he wanted. Patient's mother reported that he interrupts and disturbs his parents in daily activities like sleeping, watching TV so on. Disturbs children who are at his home (for eg: if he wants some toys).The patient's mother also complaints that he throws his clothes when back from school. Further she says he has poor table manners that he has his food by spreading it everywhere and making noise with spoon and plate. The child had a medical history of asthma for the last 7 years and has been using puffs since then and had a history of delayed motor and language milestones walking at 18 months and speaking 1st word at 16 months.

Temperamentally difficult child with history of restlessness in early childhood, temper tantrums and impaired attention. MSE, revealed that his psycho-motor activity was aimless, restless and hyperactivity with continuously moving in his chair and constant fidgeting. His attention was easy to arouse but difficult to sustain.

Diagnosis of ADHD mixed type was made.

Measures used

1. *Vineland Social Maturity Scale (VSMS*): On VSMS, the patient has obtained a social age of 10 years and 8 months and a social quotient of 98 indicating an average socio-intellectual functioning (Ruling out Mental Retardation). Scatter was observed in the area of occupation and socialization which indicates that the patient

has the higher ability to perform than the current performance revealed through the clinical interview of the parents and observation of the therapist during the assessment process. It could be due to certain factors like not enough opportunities were given to the child, less stimulating environment and similar related factors which will be taken care in therapy.

2. *Conner's Abbreviated Rating Scale (CARS*): On Conner's Abbreviated Rating Scale, patient obtained an overall score of 25 indicating ADHD characterized by restlessness, short attention span, low frustration and impulsive behaviour.

3. Clinical assessment of Learning disability: Clinical observation of writing skills and observing the child schools copies does not indicate significant learning disabilities issues.

Psychopathology Formation

In brief,BehavioralDisinhibition Modelby Barkley (1997) asserts that the inability to suppress *prepotent*responses to stimuli interferes with the development and execution of four other executive functions, including working memory, self-regulation, internalization of speech and reconstitution. The causal influence of disinhibition on these four cognitive features is postulated to account for the impulsive, hyperactive behaviour exhibited by children diagnosed with the ADHD.Difficult temperament could have acted as the predisposing factor and ineffective parenting would have acted as maintaining factor. (In the current case precipitating factor could not be elicited.)

Goals of Therapy

After interviewing the client, the therapist decided that his hyperactivity should be focused first because the client's performance in school was being affected by it and parents were more concerned and tensed about it. Hence the goals of therapy were prioritized in terms of client's needs. So goals of treatment were:-

1. Psycho education to the parents regarding the patient's current socio intellectual and behavioural functioning
2. Providing stimulating environment to the patient to enhance his functioning skills.
3. Scheduling the patient's daily activities to regulate his behaviour
4. Training the patient to enhance his attention skills using tasks like beading, colouring, grain sorting etc.
5. Parent management training to deal with ADHD issues using behavioural paradigm approach like reinforcement, modelling, etc.
6. Explaining the guidance to parents to help the patient reach his full potential. (like, look at the patient's eye and give slow ,simple and clear instructions to do a task)
7. Suggesting the parents to give immediate and positive feedback using behavioural paradigm for his adaptive behaviours like compliance, sitting quietly at one place etc.
8. Compliance training to parents and child.

Strategies used and their rationale

1.) Psycho-educating the parents about the child's current intellectual functioning and diagnosis.

Psycho education is one of the most important part of any treatment plan. In this the basic and major information related to the client's condition and the reality of the problem is conveyed in the family members and how the treatment will go about. Any myths related to the disorder are also removed.

The rational of proper psycho education is to make family members aware about the present condition and future treatment plans, risk etc so that they can help in management.

2.) Activity scheduling

It will make the environment more predictable. It will help in channelizing his physical energy into more meaningful activity. It enhances a sense of mastery.

3.) Attention Enhancement Techniques.

Client has low level of attention because of which he is unable to concentrate on anything properly. Concentrative meditation is best represented in modern medicine by two programs: Transcendental meditation which was introduced to the west during 1960s and the "Relaxation Response" developed subsequently by Benson (1975). Concentrative meditation involves focusing attention on an object and sustaining attention until the mind achieves stillness.

Concentrative meditation entails sustained attention directed towards a single object or point of focus. The aim is one- pointed attention to a single perception without distraction in order to produce concentration or a one-minded state. Some reports exist which detail the usefulness of meditation for children with ADHD.

4.) Providing the child with stimulating environment and opportunities to enhance his current adaptive functional skills.

During the assessment process it was observed that some of the skills and functions of the client were not properly developed either because of no or little exposure. Thus, which he could do but was unable to perform. So some of them were included in activity scheduling and for some her parents were guided. The rational was to help the client

become more independent and to function properly according to his age.

5.) **Parent management training to deal with ADHD issues using behavioural paradigm approach like reinforcement, modelling, etc.** Parent management training is important because in child therapy they act as co-therapist so it's important that they know how they have to behave and manage the child. It helps in better management. Parent training is in fact a behavioural intervention with the child because parents are taught to implement behaviour management techniques.

6.) **Compliance training to parents and child.** Compliance training is given to parents and child so that they adhere to psychological treatment. So that maximum benefit is expected to the client.

Details of therapy sessions

1. **Initial sessions: (Session 1 to 3)**

The first sessions focused on history taking and clarifications. The sessions were held with the patient and his parents. The child was asked about his problem areas but he was little aware so then the information from his parents was taken. Psychological assessment was done using Conners and VSMS. Working alliance was developed and collaborative model of therapy was discussed.

2. **Middle sessions (Session 4 to 11)**

The short and long term goals were decided. Therapeutic contact was made. It was decided that the client will be seen once in a week as per client's convenience and each session would usually be of one hour. The client's parents were told that it would take 3-4 months to work on their child's problem. The clients as well as his parents were quite motivated. As planned the therapeutic work was started. The client's parents were psycho-educated about ADHD. The next session focused majorly on what is ADHD? Its signs and symptoms, prevalence rate, etc. The important message conveyed to the parents was that having this disorder is not like you have failed or it's because of you or because of your child. It was added that it is a manageable disorder with the help of pharmacological and psychological treatment. The importance of compliance was told and issues related were discussed. The results of the test were also discussed with them to show that client is good in some of the functioning and not so good in others so we need to work upon those functions as well during the therapy. Other than this few important models of ADHD were also discussed to enhance their understanding about the disorder.

In session 6thand 7th activity scheduling was started it was first asked to the child what all activities he do in a day and he wishes to do. After that same thing was asked to her parents. After collecting all this information on mutual consent of child, his parents and need of the client the daily schedule was prepared which the child had to follow and on following it for a week's period properly he was given a chocolate which he loves a lot to eat. To enhance his attention skills concentrative meditation and colouring was added.

During session 8thand 10th parent training was formally started although some of the issues were taken as and when needed. Parents were informed that when they are talking to the child they should ensure to have a proper eye to eye contact, should give one instruction at one time, two people should not speck together and speak slowly. Other than this they were taught to reinforce the child when he did something good or appropriate even if it seems a small step towards what child was not doing earlier. They were also told not to compare the child with other kids at home or outside but compare the child with himself. To use punishment judicially when something inappropriate was done. They were taught some of the skills such as to how to provide more suitable environment for the client to develop full functional and adaptive skills which he is lacking. As he had problem in studying for a long time parents were informed about the short concentration period of the ADHD children and they were asked to monitor it for the client and introduce a gap of 5-10 minutes after that period.

During 11th session Behaviour contract was used to minimize few behaviours and maximize few. Feedback on how the child was doing now was taken and activities like dancing, cycling participating in games was advised to channelize his energy.

3. **Termination session (Session 12th)**

It was discussed in session 10-11 that therapy would terminate after few sessions. During this session as the final semester examinations were coming feedback on the improvement shown by the client was focused and post assessment was done. It was advised that if there is any issue they want to discuss at any point they can come. He reported significant improvement. The hyperactivity of the client had reduced a bit 30% as reported by mother.

Post assessment

During post assessment only Conner's Abbreviated Rating Scale (CARS) was used as it was the main focus of the therapy. Results obtained showed improvement in the patient. Patient obtained an overall score of 18 the post therapy score dipped from 25 to 18 indicating objective decreasing in behaviors related to ADHD.Hishyperactivity reduced according to the report given by his mother. She also reported that the child has started studying on time. His misbehaviour like arguments with parents, non-compliant behaviours was also reduced.

Clinical Observations and Therapist's Reflections

Rapport was easily developed. He was quite motivated and cooperative for the sessions.

1. Working with the client was good experience as he was very regular to sessions.
2. Sometimes it was difficult to handle him as he was very moody and started misbehaving in session.
3. The client's mother was so distressed with him that she totally relay on therapy and was not regular in following the techniques given.
4. Working with mother was more important and useful to help the client.

Challenge for the therapist

Challenge for the therapist was to sensitize mother as she had complaining attitude towards the child and she had difficulty in understanding the clinical condition of the child in spite behavioural model of psycho-education for ADHD was clearly explained to her.

Prognosis

Good prognosis factors

- The patient was cooperative.
- The patient was not hyperactive or impulsive during the session.

Bad prognosis factors

- Ineffective parenting style like demanding parents, high expectations and behavioural control of the child by parents.

Conclusion

It can be concluded that in the present case techniques of CBT and parental management training proved to be beneficial. Ghanizadeh & Shahrivar (2009) reported similar results in their study in which parent management training improved the behaviour of the children with ADHD and the general mental health of the parents.

Future Directions

There is a strong need to follow holistic approach in the management of ADHD cases. Besides parental management training and cognitive behavioral approaches, other important psychological interventions like social skills and coping skills training, and neuropsychological interventions like cognitive retraining need to be given. School interventions should be a part of any ADHD management plan. Rehabilitation professionals like occupational and physiotherapists should also help the ADHD child in working on fine motor and sensory skills and gross motor skills respectively. The treatment package needs to incorporate all pertinent health care professionals for enhancing overall functioning and to improve quality of life of children with ADHD.

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