

Emotional and Behavioural Problems in School Going Children With ADHD

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ABSTRACT

The present study aimed at studying the emotional and behavioural problems in school going children with attention deficit hyperactivity disorder. It was a cross sectional study and 40 school going children with ADHD were included in this study by using purposive sampling technique. The children were screened by using Diagnostic Test of Attention Deficit Hyperactivity Disorder (DT-ADHD) and Malin's Intelligence Scale for Indian Children (MISIC) for ADHD and average intelligence respectively. Revised Behaviour Problem Checklist and Emotional Disturbance Decision Tree were used to evaluate behavioural and emotional problems. SPSS 26 was used for analysis purpose. The result showed that the school going children with ADHD were having behavioural and emotional problems like bragging and boasting, attention seeking behaviour, disruptive and annoying behaviour, irritability and temper tantrum, engagement in fights, disobedience, rejection of team activities, inability to build and maintain relationship, hostility in interactions, lack of social problem solving skills, age-inappropriate behaviour, lack of coping skills, feeling of being rejected or unwanted, mood instability, low self-esteem, anxiety and nervousness etc.

Keywords: ADHD, Emotional Disturbance, Behaviour Problem, Disobedience, Irritability, Lack of social skills, Low Self-esteem, Anxiety

Attention Deficit and Hyperactivity Disorder is a commonly found neuropsychiatric condition in children (Pastor, Reuben & Loeb, 2009). It has been found that about half of children diagnosed with ADHD qualify for co-morbid diagnoses of either oppositional defiant disorder or conduct disorder in clinical setting (DSM 5, 2013). There is a relationship between emotional functioning and social abilities (Eisenberg, Hofer, & Vaughan, 2007). Shaw, Stringaris, Nigg, and Leibenluft, (2014) found that poor emotional functioning is an important aspect of ADHD. Emotional functioning has been found to be linked to peer problems in normally developing children (Eisenberg et al., 1995). The study by Melnick and Hinshaw (2000) provides support for the finding that emotion dysregulation is associated with peer problems among children with ADHD. Considering the significance of such studies, the present study also focused on studying the emotional and behavioural problems in children with ADHD.

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METHODOLOGY

Sample

Forty school going children with ADHD were selected for the study by using purposive sampling technique. The children were selected by visiting schools of Ranchi. Children were included in the study as per inclusion and exclusion criteria.

Instruments

The following tools were used in the present study.

Diagnostic Test of Attention Deficit Hyperactivity Disorder (DT-ADHD): It is a rating scale particularly designed for the use of school teachers to identify their wards with attention deficit hyperactivity disorder, and Conduct Disorder. The test has 56 items describing behavior and characteristics of person with ADHD and Conduct disorder reported in the guideline of ICD-10. Test-retest reliability for the DT-ADHD for the subtest of inattention is .929, for hyperactivity .925, for impulsivity .972 and for conduct disorder .945. It shows good test-retest reliability of the test. Cross validity has been found to be .749. It shows good cross validity.

Malin's Intelligence Scale for Indian Children: For the assessment of intelligence as well as working memory; Malin's Intelligence Scale for Indian Children will be used for the present study. MISIC is the Indian adaptation of Weschler Intelligence Scale for Children. MISIC is used for the children from 6 years of age to 15 years of age. The test-retest reliability of MISIC is .91 for the full-scale IQ result. MISIC has concurrent and congruent validity of .63.

Emotional disturbance decision tree (EDDT): Emotional disturbance decision tree is used to assess emotional disturbance in children with age range between 5 to 18 years. Internal consistency is high ($r = .94$) for the EDDT Total Score and ranged from .75 to .88 for the scales. In addition, test-retest stability is high ($r = .92$) and interrater reliability is good ($r = .84$) for the EDDT Total Score

Revised Behaviour Problem Checklist (RBPC): This can be used for the children between age 5 to 18 years. RBPC contains 89 items which measures the level of behavior problems. The scale contains items of for the assessment of conduct disorder, socialized aggression, attention problem, anxiety-withdrawal, psychotic behavior and motor tension- excess. The inter-rater co-efficient ranged from .80 to 1.00.

Procedure

The present study was conducted with an aim of studying behavioural and emotional problems found in children with ADHD. It was a cross sectional study. Children were screened for ADHD and average intelligence by using Diagnostic Test of Attention Deficit Hyperactivity Disorder (DT-ADHD) developed by Singh et.al., (2015) and Malin's Intelligence Scale for Indian Children (MISIC) respectively. Children with ADHD who were having average intelligence were selected for the study. Beside average intelligence, other inclusion and exclusion criteria were also followed. Emotional disturbance decision tree (EDDT) developed by Bryan L. Euler (2007) and Revised Behaviour Problem Checklist (RBPC) developed by Quay and Peterson (1997) was used for the assessment of emotional and behavioural problems. For analyzing the data descriptive statistics and one sample t test was used. A one sample t test was conducted for analysing EDDT and RBPC scores for the sample. The test value for EDDT was fixed at 54 as provided in the EDDT manual that scores equal or less than 54 is considered normal. For Revised Behaviour Problem Checklist, the test value was 50 as scores obtained on RBPC can be compared against a normalized T score mean of 50. The two-standard deviation from the mean is considered more deviant score than one standard deviation from the normalized mean on revised behaviour problem checklist,

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hence for the analysing purpose one and two standard deviation was taken as mild and moderate respectively. Scores more than two standard deviation was categorized as high severity level on revised behaviour problem checklist. SPSS-26 was used for statistical analysis.

Inclusion Criteria

- School going children with symptoms of ADHD
- Average Intelligence
- Age between 8 to 12 years
- Children of both sex
- Children who were able to understand Hindi/English
- Children for whom parents/school's principal gave informed consent.

Exclusion Criteria

- Children with any evidence of organicity and neurological condition.
- Children with any physical disability and chronic physical medical condition.
- Children with history of co-morbid psychiatric illness.
- Family history of major mental disorders.
- Recent traumatic life events.

RESULT

Forty children with ADHD were selected by using purposive sampling for the present study. There were 26 boys and 14 girls in this study. The mean age of the sample was 10.52 years with standard deviation of 1.518. table no.1 is showing the demographic details of the sample under this study.

Table no.1 showing Sociodemographic details of the children with ADHD

		N	N%
Gender	Male	26	65%
	Female	14	35%
Domicile	Rural	23	57.5%
	Urban	17	42.5%
Religion	Hindu	28	70%
	Muslim	5	12.5%
	Sarna	7	17.5%
Socio-economic status	Lower	15	37.5%
	Middle	9	22.5%
	Upper	16	40%
Class	1st	5	12.5%
	2nd	4	10%
	3rd	3	7.5%
	4th	5	12.5%
	5th	9	22.5%
	6th	14	35%
Age	8 years	7	17.5%
	9 years	5	12.5%
	10 years	2	5%
	11 years	12	30%
	12 years	14	35%

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Table no.2 is showing the one sample t test results for Emotional disturbance decision tree (EDDT). The scores were significantly different from the test value on all the five domains of Emotional disturbance decision tree (EDDT).

Table No.2 is showing Mean, SD, Range of children with ADHD and one sample t test for EDDT

Descriptive analysis		One sample t test			
	Range	Mean	SD	Mean difference	t (Test value = 54)
REL	58-90	70.65	8.417	16.65	12.511***
IBF	61-100	77.10	9.747	23.10	14.988***
PM/DEP	64-93	73.40	6.982	19.40	17.571***
FEARS	62-100	77.27	9.612	23.27	15.313***
TOTAL	65-94	77.00	6.804	23.00	21.376***

***Significant at 0.001 level

Note: **REL**- Inability to build relationship; **IBF**- Inappropriate behavior or feeling; **PM/DP**- Pervasive mood/Depression; **FEARS**- Physical symptoms or fear; **Total score**- Combined total of the four scales.

The table no.3 is showing the result of one sample t test for revised behaviour problem checklist. The scores were significantly different from the test value on all four domains.

Table No.3 is showing Mean, SD, Range of children with ADHD and one sample t test for RBPC

Descriptive analysis		One sample t test			
	Range	Mean	SD	Mean difference	t (Test value = 50)
CD	62-80	70.72	5.083	20.72	25.783***
SA	66-80	74.12	4.831	24.12	31.581***
AP	65-80	73.55	4.819	23.55	30.904***
AW	64-80	72.75	5.006	22.75	28.740***

***Significant at 0.001 level

Note- **CD**- Conduct Disorder, **SA**-Socialized Aggression, **AP**- Attention Problem, **AW**- Anxiety Withdrawal

Table no.4 is showing the severity wise distribution of children on Emotional disturbance decision tree (EDDT).

Table no.4 showing severity wise distribution of children with ADHD on different sub-scales of EDDT

	REL	IBF	PM/DEP	FEARS	TOTAL
Mild	2.5%	-	-	-	-
Moderate	50%	22.5%	35%	27.5%	5%
High	32.5%	45%	47.5%	37.5%	67.5%
Very high	15%	32.5%	17.5%	35%	27.5%

Note: **REL**- Inability to build relationship; **IBF**- Inappropriate behaviour or feeling; **PM/DP**- Pervasive mood/Depression; **FEARS**- Physical symptoms or fear; **Total score**- Combined total of the four scales

Table no.5 is showing the severity wise distribution of children on Revised Behaviour Problem Checklist.

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Table no.5 showing severity wise distribution of children with ADHD on different subscales of RBPC

	CD	SA	AP	AW
Moderate	55%	30%	40%	40%
High	45%	70%	60%	60%

Note- CD- Conduct Disorder, SA-Socialized Aggression, AP- Attention Problem, AW- Anxiety Withdrawal

DISCUSSION

The findings of the present study showed the presence of different types of emotional and behavioral problems in children with ADHD. Emotional disturbance decision tree (EDDT) was used to assess the emotional problems in children with ADHD. REL is the sub scale of EDDT which evaluates the ability to build relationship. IBF subscale evaluates Inappropriate behavior or feeling; PM/DP subscale assesses pervasive mood/depression and FEARS subscale evaluates physical symptoms or fear. The total score is the combined total of the four scales. The score of 54 and below is considered as normal for different subscales of EDDT. The scores obtained on all of the subscales of EDDT were significantly different than the test value. It showed that the children with ADHD in the present study had different type of emotional problems. On REL subscale 2.5%, 50%, 32.5% and 15% children fell under mild, moderate, high and very high level of severity category respectively. On IBF 22.5%, 45% and 32.5% children fell under moderate, high and very high level of severity category respectively.

On PM/DEP 35%, 47.5% and 17.5% children fell under moderate, high and very high level of severity category respectively. On Fears scale 27.5%, 37.5% and 35% children fell under moderate, high and very high level of severity category respectively. On total score 5%, 67.5% and 27.5% children fell under moderate, high and very high level of severity category respectively. Results of one sample t test for revised behaviour problem checklist showed presence of behaviour problems in the children with ADHD in the present study. On Conduct disorder scale 55% and 45% children fell under moderate and high level of severity category respectively. On socialized aggression subscale 30% and 70% children fell under moderate and high level of severity category respectively. On attention problem scale of RBPC 40% and 60% children fell under moderate and high level of severity category respectively. On anxiety withdrawal scale 40% and 60% children fell under moderate and high level of severity category respectively. These results showed that the children with ADHD in the present study had problem in building relationship and maintaining them. They were aggressive and had difficulty with obeying rules and regulation. Their behaviour was aggressive and inappropriate with generally leads to peer rejection and difficult emotional status. The children were also having feeling of fear and depression. These results indicate the presence of poor social skills in children with ADHD.

Thorell, Sjöwall, Diamatopoulou, Rydell and Bohlin (2017) found that ADHD symptoms and emotional dysregulation causes problems in healthy peer relationship. ADHD is linked to peer problems (McQuade & Hoza, 2008). Children with ADHD have greater difficulties in behavioral, social, and academic functioning and poorer quality of life in comparison to children without ADHD. Their parents experience more parenting stress, and their mothers are more likely to report symptoms of anxiety and depression (Carr, 2006). Impaired social functioning is regarded as one of the core deficits for children with ADHD (DSM 5, 2013; Tur-Kaspa, 2005). Experience of affective difficulties, such as motivation delay and mood dysregulation in children with ADHD forms the basis of the social skills problems in children

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with ADHD (Landau & Moore, 1991; Whalen & Henker, 1985). Whalen and Henker (1985) found that developing peers often describe children with ADHD as being annoying, boisterous, irritating, and intrusive. The interpersonal relationships of children with ADHD are frequently characterized as being negative and conflicting (Tur-Kaspa, 2005; Normand, Schneider, Lee, Maisonneuve, Kuehn & Robaey, 2011). Cordier, Bundy, Hocking and Einfeld (2010) found that children with ADHD are likely to have difficulties in establishing and maintaining satisfying interpersonal relationships as a result of difficulty with cooperative play with peers, perspective taking, responding to social cues, and self-regulation, placing them at higher risk of social isolation. There is a strong association between Attention-deficit/hyperactivity disorder (ADHD) and other externalizing syndromes (Kessler, Chiu, Demler, & Walters, 2005). Harvey, Breaux, and Lugo-Candelas (2016) found in a longitudinal study that ADHD was a strong predictor for the development of the argumentative/defiant symptoms of ODD. Klimkeit, Graham, Lee, Morling, Russo & Tonge (2006) has reported that children and adolescents with ADHD tend to have poorer social and communication skills than children and adolescent without ADHD alone. Fraser et al. (2018) reported significantly higher level of depressive symptoms in children with ADHD than the normal children. Depression is found at a higher rate in children and adolescents with ADHD than in those without ADHD (Daviss, 2008),

The present study has also found that children with ADHD have difficulty in building relationship, aggressive and irritable behaviour, anxiety and depressive feelings which is similar to the findings of previous studies as discussed above.

CONCLUSION

Children with ADHD suffers from different types of emotional and behavioural problems which hampers the healthy functioning of such children in different social settings.

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Conflict of Interest

The author(s) declared no conflict of interest.

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