

Assessment of Disruptive Behaviour Disorder, Academic Performance, and School Social Behaviour of Children

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In the present study, academic performance, childhood behaviour problems, Social Competence and Antisocial Behaviour of children screened out with symptoms of either Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), Conduct Disorder (CD) or comorbid disorders as compared to the comparison group of children (without symptoms of ADHD, ODD, and CD) was explored. Sample included children of 3rd to 5th grades between age range 8 to 13 years ($N = 806$; Mean age = 9.55, $SD = 1.27$) including (boys $n = 453$; Mean age = 9.65, $SD = 1.19$) and (girls $n = 353$; Mean age = 9.43, $SD = 1.35$) from different schools of Islamabad and Rawalpindi. Disruptive Behaviour Disorder (DBD) Rating scale (Urdu version: Loona & Kamal, 2011) and School Social Behaviour Scale (SSBS) (Urdu version: Loona & Kamal, 2002) along with Consent Form were presented to the respective class teachers. Findings showed higher number of children with symptoms of DBD falling in the academically low scoring group. Moreover, findings indicated children with middle and low academic performance scored high on Antisocial Behaviour subscale of SSBS as compared to high scorer group.

Keyword. Disruptive Behaviour Disorder, Social Competence and Antisocial Behaviour

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Disruptive children often become unpopular with their peers and frequently have no long-term friendships. They usually display poor social skills with peers and adults, e.g. they have difficulty sustaining a game or promoting positive social interchanges. Nevertheless, there is limited evidence for a relatively small group of conduct disordered youngsters who do make enduring friendships, display altruistic behaviour, feel guilt or remorse, refrain from blaming others, and show concern for others (Goodman & Scott, 1997).

The overlapping subgroup with conduct problems and attention deficits/impulsivity displays a far more pernicious form of psychopathology than does either single diagnostic category. Such youngsters display more physical aggression, a greater range and greater persistence of antisocial activity, more severe academic underachievement, and higher rates of peer rejection (Barry, Lyman, & Klinger, 2002; Hinshaw, 1992).

Children who are rejected by peers show more externalizing behaviour than those who are not rejected (e.g., Coie, Lochman, Terry, & Hyman, 1992; Keiley et al., 2000; Tolan, Henry, Schoeny, & Bass, 2008). Similarly, children who are rejected by peers have more internalizing symptoms than their non rejected peers (e.g., Coie et al., 1992; Panak & Garber, 1992). Some evidence exists that children who have been neglected by their peers are more likely to develop internalizing symptoms (e.g., Harrist, Zaia, Bates, Dodge, & Pettit, 1997). In terms of the relationship between peer problems and co-occurring externalizing and internalizing behaviours, Wright, Zakriski, and Drinkwater (1999) found that the co-occurring group (externalizing

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and internalizing) evidenced poor peer relations, and in ordinary peer conversations, showed elevated levels of both aggression and withdrawal. Rudolph, Hammen, and Burge (1994) found that children with co-occurring externalizing and internalizing problems had more ratings of peer rejection than did the normal and pure internalizing groups, but equivalent to the pure externalizing group.

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common and most studied disorders of childhood (Rowland, Lesesne, & Abramowitz, 2002; Tannock, 1998; Wolraich, 1999). ADHD is more closely related to academic failure and cognitive deficits (Fergusson, Horwood, & Lynskey, 1993). Individuals diagnosed with ADHD often experience difficulties across many areas of functioning (e.g., academics, social functioning) (Mannuzza & Klein, 1999; Satterfield & Schell, 1997; Weiss & Hechtman, 1993).

One of the serious difficulties faced by ADHD children is poor academic achievement (Barry, Lyman, & Klinger, 2002; DuPaul et al., 2001; Faraone et al., 1993; Frick et al., 1991; Lonigan et al., 1999; Rapport et al., 1999; Zentall et al., 1994).

Children with ADHD show poor performance in schools and their performance is believed to be the result of their inattentive, impulsive, and restless behaviour in the classroom (Wheeler, Keller, & DuBois, 2010). On various standardized achievement tests, including tests of reading, spelling, math, and reading comprehension, children with ADHD are also likely to show performances that are lower than their classmates' by as much as 10–30 standard score points (Barkley,

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DuPaul, & McMurray, 1990; Brock & Knapp, 1996; DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011).

Loona and Kamal (2004) studied Academic performance and school social behaviour of ADHD and Non ADHD ($N = 468$) school going children from primary (3, 4, 5) and secondary (6, 7, 8) grades and found Non ADHD (comparison) group of children scoring significantly better academic performance than ADHD group.

Rationale

Present study is carried out to screen out children in the school setting via teachers' ratings with significant symptoms of childhood behaviour problems through DBD Rating scale (Urdu version: Loona & Kamal, 2011). Teachers usually have considerable experience with the range of classroom behaviour and are qualified to make a preliminary judgment concerning the child's classroom behaviour. They observe child behaviour for a long period of time each day and in a variety of situations they also have a sizable group of children of same age as a comparison base for evaluating the intensity and frequency of problematic behaviour in children (Johnston, O'Malley, Miech, Bachman, & Schulenberg, 2017; Ross & Ross, 1982).

Method

Objective

1. To assess influence of academic performance and childhood behaviour problems on Social Competence and Antisocial Behaviour of children screened out with symptoms of either ADHD, ODD, CD or comorbid disorders as compared to the comparison group of children.

Hypothesis

1. Children screened out either with ADHD, ODD, CD, or comorbid symptoms having low academic records/grades will have low Social Competence as compared to children in comparison group.
2. Children screened out either with ADHD, ODD, CD, or comorbid symptoms having low academic records/grades will have high Antisocial Behaviour as compared to children in comparison group.

Sample

In the present Study, sample included children of 3rd, 4th, and 5th grades between age range 8 to 13 years ($N = 806$; Mean age = 9.55, $SD = 1.27$) including (boys $n = 453$; Mean age = 9.65, $SD = 1.19$) and (girls $n = 353$; Mean age = 9.43, $SD = 1.35$) from different inclusive schools of Islamabad and Rawalpindi. Special schools were not included.

In the present sample, there were (high scorers, $n = 438$; from Grade 3, $n = 138$; Grade 4, $n = 149$; Grade 5, $n = 151$); (Middle scorers, $n = 202$; from Grade 3, $n = 59$; Grade 4, $n = 85$; Grade 5, $n = 58$); and

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(Low scorers, $n = 166$; from Grade 3, $n = 52$; Grade 4, $n = 67$; Grade 5, $n = 47$). High scorers were those students who scored A and A+ in last annual examination. Whereas, Middle scorers were scoring B and B+ grades and low scorers were C+, C and D. Total 1200 forms keeping in view 400 for each grade were distributed in various schools but due to data loss by the teachers 350 forms were not returned and about 50 incomplete forms were discarded. Overall response rate of forms was 67 per cent that is considered good (Babbie, 1992).

Instruments

Disruptive Behaviour Disorder (DBD) Rating Scale (Urdu Version). The scale is consisted of 42 items that are scored on a four point Likert scale ranging from 0 (*not at all*) to 3 (*very much*). Cronbach's alpha reliability coefficients ranged from .80 to .91 for the four subscales of DBD Rating scale (Urdu version). The alpha coefficients of subscales were as follows, ADHD-I ($\alpha = .85$), ADHD-HI ($\alpha = .80$), ADHD-C ($\alpha = .86$), ODD ($\alpha = .84$), and CD ($\alpha = .91$) (Loona & Kamal, 2011). Findings indicated highly satisfactory alpha reliability coefficients of the total DBD and its subscales. These findings indicated high internal consistency, homogeneity of items and the accuracy and precision of a measuring instrument (Kerlinger, 1976).

School Social Behaviour Scale (SSBS) (Urdu version). To assess Social Competence and Antisocial Behaviour of children School Social Behaviour Scale (Urdu version) by Loona and Kamal (2002) was used. SSBS has five point rating scale. (Never = 1; Rarely = 2; Often = 3; Very often = 4; and Always = 5). The alpha coefficients of interpersonal skills, self management skills, and academic skills were .94, .90 and .93

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respectively. For hostile irritable, antisocial aggressive and disruptive demanding these were .88, .93 and .79. The alpha coefficient for the subscale of Social Competence was .96 and for Antisocial behaviour subscale it was .94. SSBS (Urdu version: Loona & Kamal, 2002) has been widely used in Pakistani researches (See e.g., Bashir, 2009; Iqbal, 2008; Rafique, 2007).

Procedure

Disruptive Behaviour Disorder Rating scale (Urdu version: Loona & Kamal, 2011) and School Social Behaviour Scale (Urdu version: Loona & Kamal, 2002) along with consent form were presented to the respective class teachers of selected children after getting institutional approval. Only those class teachers who taught these children for at least last one year were requested to rate three high scorers, three middle scorers, and three low scorers from their class. Though it was expected that as per instructions teachers rate equal number of High, Middle, and Low scorer children from their classes but teachers rated higher scorer children more as compared to middle and low scorers. In the present study, class teachers ($N = 133$) were presented forms to rate children, however, only ($N = 89$) class teachers returned duly completed forms for ($N = 806$) children. Teachers were quite familiar with the behaviour of their class children; therefore they found no difficulty in rating children on DBD Rating scale (Urdu version) (Loona & Kamal, 2011) and SSBS (Urdu version) (Loona & Kamal, 2002).

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Results

As per literature, poor academic performance and childhood behaviour disorders both can create impairment in the Social Competence of child, therefore, Univariate Analysis of variance has been performed to see how two independent variables influence an outcome variable that is Social Competence.

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Table 1

Means and Standard Deviations on Social Competence subscale of SSBS for Children Screened out via Teachers' ratings on DBD Rating scale; with their respective High, Middle, and Low Academic performance (N = 806)

Groups	High Scorers			Middle Scorers			Low Scorers		
	M	SD	N	M	SD	n	M	SD	N
ADHD-I	77.50	14.15	4	83.11	26.91	18	80.82	20.98	33
ADHD-HI	110.00	24.73	4	102.38	22.09	8	100.93	26.64	14
ODD	112.67	18.61	3	106.00	19.78	4	94.00	25.04	4
CD	105.25	37.52	4	86.33	22.49	21	86.67	15.91	33
ADHD-C	104.00	33.94	2	81.67	27.11	6	71.60	24.70	5
Comorbid	112.80	17.61	5	87.24	24.31	25	80.19	20.91	42
Comparison	111.38	25.61	416	98.33	24.46	120	89.34	25.35	35
Total	110.99	25.62	438	94.17	24.92	202	85.36	22.37	166

Note. ADHD-I = attention deficit hyperactivity disorder – predominantly inattentive type; ADHD-HI = attention deficit hyperactivity disorder – predominantly hyperactive impulsive type; ADHD-C = attention deficit hyperactivity disorder – combined type; ODD = oppositional defiant disorder; CD = conduct disorder; DBD = disruptive behaviour disorder; comparison = comparison group; Acad group = Academic group.

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Findings of Table 1 indicated mean differences of children with symptoms of ADHD-I, ADHD-HI, ADHD-C, ODD, CD, and comorbidity with respect to their academic performance. Findings showed higher number of children with symptoms of DBD falling in the academically low scoring group. These findings also supported the findings of literature that suggested children with symptoms of DBD show poor academic performance in schools (See e.g., Rapport, DuPaul, Stoner, & Jones, 1986).

Table 2

Tests of Between-Subjects Effects on Social Competence subscale of SSBS (N = 806)

Source	Type III Sum of Squares	df	Mean Square	F	P
Corrected Model	114259.01a	20	5712.95	9.46	.000
Intercept	1262024.17	1	1262024.17	2091.18	.000
Marks group	7035.69	2	3517.84	5.82	.003
Screened group	12884.69	6	2147.44	3.55	.002
Marks_grp * Sc_grp	4098.91	12	341.57	.56	.870
Error	473744.47	785	603.49		
Total	8891008.00	806			
Corrected Total	588003.48	805			

Note. a.R Squared = .194 (Adjusted R Squared = .174). ** $p < .01$

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Table 2 represented between subjects effects of children screened out with behaviour problems along with their academic performance on Social Competence subscale of SSBS. Findings indicated there is significant influence of academic performance and DBD symptoms on Social Competence of children. However, the interaction effect of both independent variables proved nonsignificant. It indicated relative independence of both variables.

Figure 1

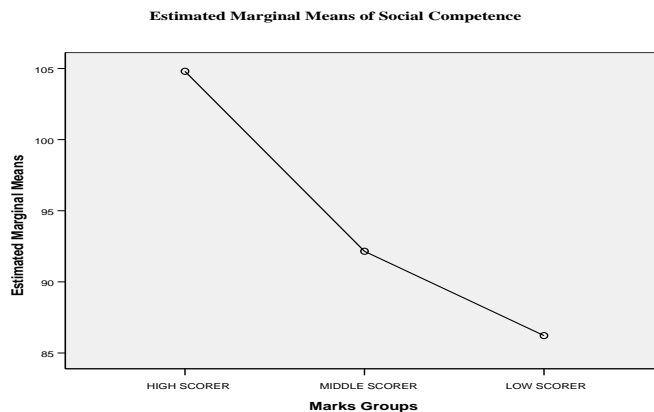


Figure 1. Means of three academic performance groups on Social Competence subscale of SSBS.

The Figure 1 clearly indicated that low scorers have significantly low mean on Social Competence as compared to middle scorers and high scorers. Higher scorers showed high mean on Social Competence subscale as compared to other two groups.

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Figure 2

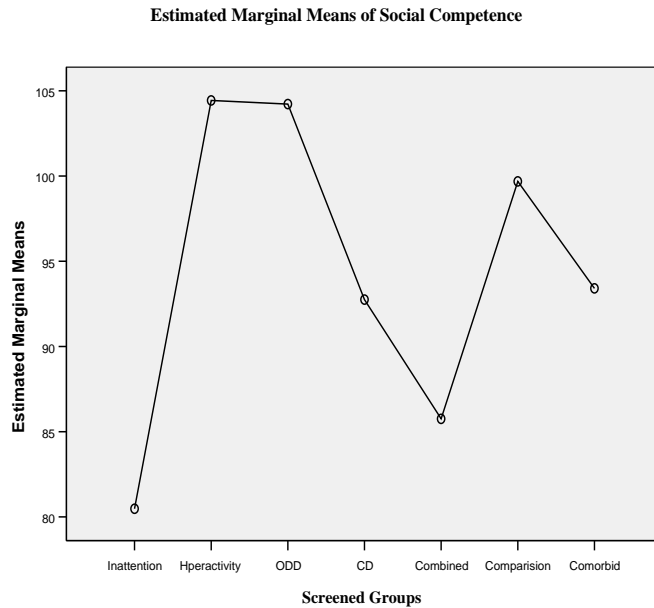


Figure 2. Mean differences on Social Competence Subscale of SSBS between children screened out with symptoms of DBD and comparison group.

Figure 2 indicated mean differences between comparison group and children screened out with symptoms of ADHD-I, ADHD-HI, ADHD-C, ODD, CD, and comorbidity on Social Competence subscale of SSBS. ADHD-I group showed lowest mean on Social Competence subscale as compared to all other groups. Whereas, ADHD-HI and ODD groups showed high Mean on Social Competence. According to the present findings it seems Social Competence of ADHD-HI and ODD children remain high regardless of low academic performance and behavioural problems. However, according to literature hyperactive

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children are more likely to have poor school achievement, specific learning disabilities, and a higher incidence of conduct disorders. Hyperactive children, especially those who are also aggressive, may have serious disturbances in their peer relations (Pelham & Milich, 1984). Mean scores of comparison group on Social Competence were higher as compared to ADHD-I, ADHD-C, CD, and Comorbid group. So hypothesis no. 1 of present study that children screened out either with ADHD, ODD, CD, or comorbid symptoms having low academic records/grades will have low Social Competence as compared to comparison group of children proved partially significant.

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Assessment of simultaneous influence of DBD symptoms and academic performance on Antisocial Behaviour of children.

Table 3

Means and Standard Deviations on Antisocial Behaviour Subscale of SSBS for Children Screened out via Teachers' ratings and with their respective High, Middle, and Low Academic performance (N = 806)

Marks Groups	High Scorers			Middle Scorers			Low Scorers		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>n</i>
ADHD-I	79.50	9.950	4	57.50	11.703	18	63.58	14.494	33
ADHD-HI	76.00	34.264	4	62.13	13.389	8	69.29	17.139	14
ODD	55.33	7.572	3	68.25	18.572	4	75.00	26.064	4
CD	65.25	15.628	4	75.48	17.862	21	81.27	15.306	33
ADHD-C	60.50	17.678	2	72.00	9.879	6	88.20	19.715	5
Comorbid	83.20	21.183	5	90.68	17.305	25	85.29	18.852	42
Comparison	52.19	15.449	416	57.33	14.463	120	53.26	14.286	35
Total	53.19	16.314	438	64.20	18.755	202	71.91	20.520	166

Note. ADHD-I = attention deficit hyperactivity disorder – predominantly inattentive type; ADHD-HI = attention deficit hyperactivity disorder – predominantly hyperactive impulsive type; ADHD-C = attention deficit hyperactivity disorder – combined type; ODD = oppositional defiant disorder; CD = conduct disorder; DBD = disruptive behaviour disorder; comparison = comparison group.

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Table 3 represented mean differences of screened out children on Antisocial Behaviour subscale of SSBS. Moreover, findings of Table 4 also showed means of respective academic performance groups i.e., High scorers, Middle scorers, and Low scorers on Antisocial Behaviour subscale of SSBS. Findings indicated children with middle and low academic performance scored high on Antisocial Behaviour subscale of SSBS as compared to high scorer group. Secondly, number of screened out children with behavioural problems was significantly low in the high academic performance group i.e., (ADHD-I, $n = 4$; ADHD-HI, $n = 4$; ADHD-C, $n = 2$, ODD, $n = 3$; CD, $n = 4$; Comorbid, $n = 5$).

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Table 4

*Tests of Between-Subjects Effects on Antisocial Behaviour
Subscale of SSBS (N = 806)*

Source	Type III Sum of Squares	df	Mean Square	F	P
Corrected Model	111354.94a	20	5567.74	22.70	.000
Intercept	695225.94	1	695225.94	2834.57	.000
Marks groups	1176.40	2	588.20	2.39	.092
Screened groups	41119.43	6	6853.23	27.94	.000
Marks_grp * Sc_grp	6300.82	12	525.06	2.14	.013
Error	192534.08	785	245.26		
Total	3186560.00	806			
Corrected Total	303889.02	805			

Note. a. R Squared = .366 (Adjusted R Squared = .350)** $p < .01$

Table 4 represented between subjects effects on Antisocial Behaviour subscale of SSBS. Findings indicated academic performance groups i.e., High, Middle, and Low scorers proved nonsignificant in increasing Antisocial Behaviour. Whereas, symptoms of childhood behaviour disorders significantly influenced Antisocial Behaviour of children. The interaction effect of both independent variables i.e., academic performance and DBD symptoms also proved significant that indicated if children exhibit behavioural problems along with low

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academic performance then outcome will be increase in Antisocial Behaviour.

Figure 3

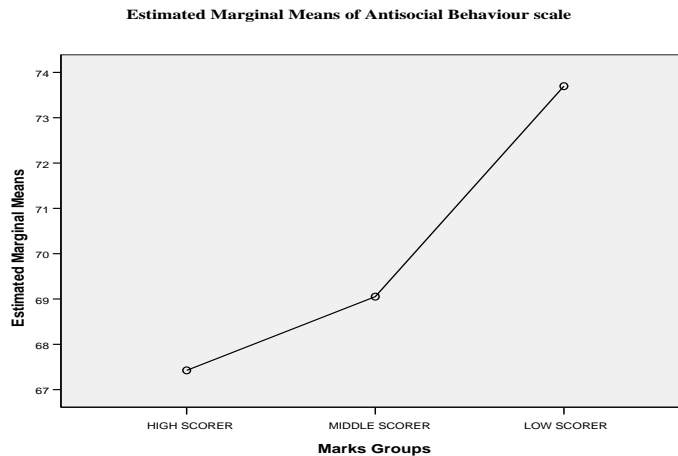


Figure 3. Mean differences on Antisocial Behaviour Subscale of SSBS between children belonging to High, Middle, and Low academic performance.

Figure 3 indicated High scorer children showed lowest mean on Antisocial Behaviour subscale of SSBS. Whereas, children with Low scores on academic performance showed high mean on Antisocial Behaviour subscale. These findings supported hypothesis no. 2 that children screened out either with ADHD, ODD, CD or comorbid symptoms having low academic performance will have high Antisocial Behaviour as compared to comparison group of children.

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Figure 4

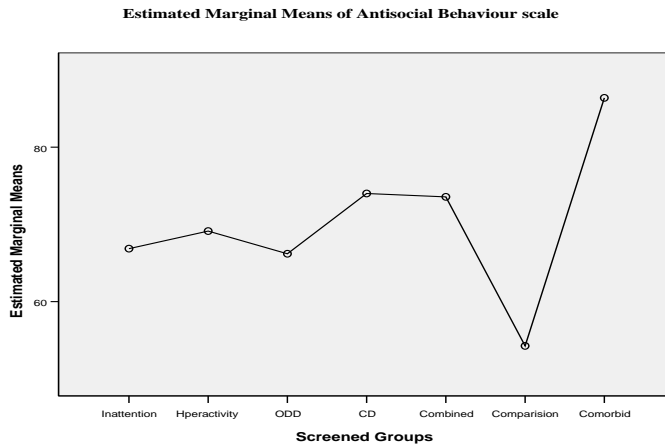


Figure 4. Mean differences on Antisocial Behaviour Subscale of SSBS between children screened out with symptoms of DBD and comparison group.

Figure 4 indicated Comparison group of children scored lowest mean on Antisocial Behaviour subscale of SSBS. Whereas, the comorbid group scored high mean on Antisocial Behaviour.

Discussion

In the present study, children of primary grades i.e., (3rd, 4th, & 5th) were selected from three academic performance groups i.e., high, middle, and low scorers. Literature suggested that usually children with disruptive behaviour disorders suffer low academic performance (Barkley, DuPaul, & McMurray, 1990; Brock & Knapp, 1996; Casey, Rourke, & Del Dotto, 1996). However, to investigate academic performance and childhood behaviour disorders in the Pakistani context, all three academic performance groups i.e., high scorers, middle scorers, and low scorers were selected. Findings of Table 1 represented that children screened out with symptoms of childhood behaviour disorders were mostly from the academically low performance group.

As per literature, ADHD tends to be more closely related to academic failure and cognitive deficits (Fergusson, Horwood, & Lynskey, 1993). ODD is associated with compromised social relations with parents and peers and impaired school and academic performance (Greene et al., 2002). Children with conduct problems who are unable to maintain social relationships tend to be more aggressive, have a poorer prognosis, and respond less well to treatment compared to socialized antisocial children (Rogeness, Javors, & Pliszka, 1992).

Assessment of Social Competence and Antisocial Behaviour was performed through SSBS (Urdu version) (Loona &

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Kamal, 2002). Children with conduct disorder and behaviour problems usually have deficits in social skills with peers. They lack positive communication skills such as knowing how to approach others and join in groups of children (Putallaz & Wasserman, 1990), how to get a conversation going or how to give positive rather than negative feedback (Coie, Dodge, & Kupersmidt, 1990; Dodge, 1983).

Assessment of simultaneous influence of DBD symptoms and academic performance on Social Competence of children was assessed. Findings of Univariate analysis of variance (See Table 2) indicated that academic performance and symptoms of childhood behaviour disorders significantly influence Social Competence of the children. However, the interaction effect of both academic performance and symptoms of behavioural disorders proved nonsignificant. Findings (See Figure 1) clearly indicated that low scorers showed significantly low mean on Social Competence as compared to middle scorers and high scorers. Children with high academic performance have significantly high Social Competence and children belonging to low academic performance have significantly low Social Competence.

Whereas findings (See Figure 2) indicated ADHD-HI group and ODD group showed high mean on Social Competence that was contrary to the hypothesis. However, all other DBD groups showed low mean scores on Social Competence as

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compared to comparison group of children. So hypothesis no. 1 of present study that children screened out either with ADHD, ODD, CD, or comorbid symptoms having low academic records/grades will have low Social Competence as compared to comparison group of children proved partially significant. Rafiq (2007) described that there were significant differences between low academic performers and high academic performers on Social Competence and Antisocial Behaviour. Miller and Olson (2000) also stated that children with conduct problems display verbal and physical aggression and poor social skills toward other children.

Similarly, assessment of simultaneous influence of childhood behaviour problems and academic performance on Antisocial Behaviour was studied. Findings of (Table 4) indicated that DBD symptoms significantly increased the Antisocial Behaviour of children. The interaction effect of both independent variables was also significant. These findings supported hypothesis no. 2 that children screened out either with ADHD, ODD, CD or comorbid symptoms having low academic performance will have high Antisocial Behaviour as compared to comparison group of children. However, findings indicated that academic performance based groups (high, middle, low) showed nonsignificant difference on Antisocial Behaviour subscale. These findings indicated that academic performance either higher, middle, or low alone did not cause increase in the Antisocial Behaviour but in case of presence

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of behaviour problems in children; increase in the Antisocial Behaviour can be expected.

Loona and Kamal (2002) found ADHD group scored significantly high on antisocial behaviour and its subscales as compared to comparison group of children. Findings of present study (See Figure 3) also indicated that children of DBD groups were showing higher Antisocial Behaviour as compared to comparison group of children. On Social Competence and its subscales children with behavioural problems scored low except ODD and ADHD-HI group. On Antisocial behaviour and its subscales screened out children with comorbid symptoms scored high.

Implications

Findings of present study will prove beneficial for teachers and parents of children with poor academic performance and low social competence. They can pay special attention to these children to bring improvement in their academic performance and minimizing their antisocial behavior.

Conclusion

Besides screening children with symptoms of childhood behaviour disorders, assessment of their School Social Behaviour was also carried out for getting information regarding their social behaviour specifically inside school where children spend

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significant amount of time daily. School Social Behaviour covered two aspects that are Social Competence and Antisocial Behaviour. Children with conduct disorder and behaviour problems usually have deficits in social skills with peers. They lack positive communication skills such as knowing how to approach others and join in groups of children (Dunn et al., 2012; Hanish, & Guerra, 2000; Putallaz & Wasserman, 1990), how to get a conversation going or how to give positive rather than negative feedback (Coie, Dodge, & Kupersmidt, 1990).; these findings also proved useful in understanding these constructs in Pakistani context.

References

- Babbie, E. (1992). *The practice of social research* (6thed.). Belmont, CA: Wadsworth.
- Barkley, R. A., DuPaul, G. J., & McMurray, M. B. (1990). Comprehensive evaluation of attention deficit disorder with and without hyperactivity as defined by research criteria. *Journal of Consulting and Clinical Psychology, 58*, 775–789.
- Barry, T. D., Lyman, R. D., Klinger, L. G. (2002). Academic underachievement and attention-deficit/hyperactivity disorder: The negative impact of symptom severity on school performance. *Journal of School Psychology, 40*, 259-283.
- Barry, T. D., Lyman, R. D., Klinger, L. G. (2002). Academic underachievement and attention-deficit/hyperactivity disorder: The negative impact of symptom severity on school performance. *Journal of School Psychology, 40*, 259-283.
- Bashir, S. (2009). *School social behaviour among hearing-impaired adolescents* (Unpublished M.Sc. Research Report), National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.
- Brock, S. W., & Knapp, P. K. (1996). Reading comprehension abilities of children with attention-deficit/hyperactivity disorder. *Journal of Attention Disorders, 1*, 173–186.

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and School Social Behaviour of Children

- Casey, J. E., Rourke, B. P., & Del Dotto, J. E. (1996). Learning disabilities in children with attention deficit disorder with and without hyperactivity. *Child Neuropsychology*, 2, 83–98.
- Coie, J. D., Lochman, J. E., Terry, R., & Hyman, C. (1992). Predicting early adolescent disorder from childhood aggression and peer rejection. *Journal of Consulting and Clinical Psychology*, 60, 783–792.
- Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, 54, 1386-1389.
- DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest*, 12, 57–91. <http://dx.doi.org/10.1177/1529100611414806>
- Dunn, Sarah, Jones, Janelle; Mekjavich, Ellen; Mukai, Gracie; and Varenas, Doug, "Understanding the impact of mentoring on substance abuse patterns in adolescents" (2012). *Pediatrics CATs*. Paper 16. <http://commons.pacificu.edu/otped/16>
- DuPaul, G. J., McGoey, K. E., Eckert, T. L., & Vanbrakle, J. (2001). Preschool children with attention-deficit/hyperactivity disorder: Impairments in behavioral, social, and school functioning. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 508–515.

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- Faraone, S. V., Biederman, J., Lehman, B. K., Spencer, T., Norman, D., Seidman, L. J., & Ming, T. (1993). Intellectual performance and school failure in children with attention deficit hyperactivity disorder and their siblings. *Journal of Abnormal Psychology, 102*(4), 616–623.
- Fergusson, D. M., Horwood, L. J., & Lynskey, M. T. (1993). The effects of conduct disorder and attention deficit in middle childhood on offending and scholastic ability at age 13. *Journal of Child Psychology and Psychiatry, 34*, 899–916.
- Frick, P. J., Kamphaus, R. W., Lahey, B. B., Christ, M. A. G., Hart, E. L., & Tannenbaum, T. E. (1991). Academic underachievement and the disruptive behavior disorders. *Journal of Consulting and Clinical Psychology, 59*, 289-294.
- Goodman, R., & Scott, S. (1997). *Child psychiatry*. London: Blackwell Science Ltd.
- Greene, R. W., Biederman, J., Zerwas, S., Monuteaux, M. C., Goring, J. C., & Faraone, S. V. (2002). Psychiatric comorbidity, family dysfunction, and social impairment in referred youth with oppositional defiant disorder. *American Journal of Psychiatry, 159*, 1214–1224.
- Hanish, L. D., & Guerra, M. G. (2000). Predictors of peer victimization among urban youth. *Social Development, 9*, 521–543. <http://dx.doi.org/10.1111/1467-9507.00141>

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Harrist, A. W., Zaia, A. F., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1997). Subtypes of social withdrawal in early childhood: Sociometric status and social–cognitive differences across four years. *Child Development, 68*,278–294.
- Hinshaw, S. P. (1992). Externalizing behavior problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin, 111*,127-155.
- Iqbal, F. (2008). *Relationship of shyness and anxiety with school social behaviour among adolescents* (Unpublished M.Phil Thesis). National Institute of Psychology: Quaid-i-Azam University, Islamabad.
- Johnston, L. D., O’Malley, P. M., Miech, R. A., Bachman, J. G., & Schulenberg, J. E. (2017). *Monitoring the Future national survey results on drug use, 1975-2016: Overview, key findings on adolescent drug use*. Ann Arbor: Institute for Social Research, The University of Michigan. <http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2016.pdf>
- Keiley, M. K., Bates, J. E., Dodge, K. A., & Pettit, G. S. (2000). A cross domain growth analysis: Externalizing and internalizing behaviors during 8 years of childhood. *Journal of Abnormal Child Psychology, 28*, 161–179.

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Kerlinger, F. N. (1976). *Foundations of behavioral research* (2nded). London. Holt, Rinehart and Winston, Inc.
- Lansford, J. E., Erath, S., Yu, T., Pettit, G. S., Dodge, K. A., & Bates, J. E. (2008). The developmental course of illicit substance use from age 12 to 22: Links with depressive, anxiety, and behavior disorders at age 18. *The Journal of Child Psychology and Psychiatry*, 49, 877–885. <http://dx.doi.org/10.1111/j.1469-7610.2008.01915.x>
- Lonigan, C. J., Bloomfield, B. G., Anthony, J. L., Bacon, K. D., Phillips, B. M., & Samwel, C. S. (1999). Relations among emergent literacy skills, behavior problems, and social competence in preschool children from low- and middle-income backgrounds. *Topics in Early Childhood Special Education*, 19, 40–53.
- Loona, M. I., & Kamal, A. (2002). Gender differences among ADHD children on school social behaviour. *Journal of Behavioural Sciences*, 13, 5-22.
- Loona, M. I., & Kamal, A. (2004). Academic performance and school social behaviour of ADHD and Non ADHD children. *Pakistan Journal of Social and Clinical Psychology*, 2, 17-37.
- Loona, M. I., & Kamal, A. (2011). Translation and Adaptation of Disruptive Behaviour Disorder Rating Scale. *Pakistan Journal of Psychological Research*, 26, 149-165.

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Mannuzza, S., & Klein, R. G. (1999). Adolescent and adult outcomes in attention-deficit/hyperactivity disorder. In A. E. Hogan, & H. C. Quay (Eds.), *Handbook of disruptive behavior disorders* (pp. 279–294). New York: Plenum Press.
- Miller, K. A., Olsen, J. L., & Stam, W. T. (2000). Genetic divergence correlates with morphological and ecological subdivision in the deep-water elk kelp *Pelagophycusporra* (Laminariales, Phaeophyceae). *Journal of Psychology*, *36*, 862-870.
- Panak, W. F., & Garber, J. (1992). Role of aggression, rejection, and attributions in the prediction of depression in children. *Development and Psychopathology*, *4*, 145–165.
- Pelham, W. E., & Milich, R. (1984). Peer relations in children with hyperactivity/attention deficit disorder. *Journal of Learning Disabilities*, *17*, 560–567.
- Putallaz, M., & Wasserman, A. (1990). Children's entry behavior. In S.R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 60-89). New York: Cambridge University Press.
- Rafique, I. (2007). *General mental ability, self esteem, family relations, school social behaviour and academic performance of secondary school students* (Unpublished M.Phil Thesis). National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Rappaport, M. D., Scanlan, S. W., & Denney, C. B. (1999). Attention deficit/hyperactivity disorder and scholastic achievement: A model of dual developmental pathways. *Journal of Child Psychology and Psychiatry*, *40*, 1169–1183.
- Rogeness, G. A., Javors, M. A., & Pliszka, S. R. (1992). Neurochemistry and child and adolescent psychiatry. *Journal of the American Academy of Child and Adolescent Psychiatry*, *31*, 765-781.
- Ross, D. M., & Ross, S. A. (1982). *Hyperactivity current issues research and theory*. (2nd ed.). New York: John, Wiley, & Sons, Inc.
- Rowland, A. S., Lesesne, C. A., & Abramowitz, A. J. (2002). The epidemiology of attention-deficit/hyperactivity disorder (ADHD): A public health view. *Mental Retardation and Developmental Disabilities Research Reviews*, *8*, 162–170. doi:10.1002/mrdd.10036.
- Rudolph, K. D., Hammen, C., & Burge, D. (1994). Interpersonal functioning and depressive symptoms in childhood: Addressing the issues of specificity and comorbidity. *Journal of Abnormal Child Psychology*, *22*, 355–371.

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Satterfield, J. H., & Schell, A. (1997). A prospective study of hyperactive boys with conduct problems and normal boys: Adolescent and adult criminality. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36(12), 1726–1735. doi:10.1097/00004583-199712000-00021.
- Tannock, R. (1998). Attention deficit hyperactivity disorder: Advances in cognitive, neurobiological, and genetic research. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 39(1), 65–99. doi:10.1017/S0021963097001777.
- Tolan, P., Henry, D., Schoeny, M., & Bass, A. (2008). *Mentoring inter-inventions to affect youth juvenile delinquency and associated problems*. Chicago, IL: University of Chicago, Institute for Juvenile Research. Retrieved from <http://www.campbellcollaboration.org/lib/project/48/>
- Weiss, G., & Hechtman, L. T. (1993). *Hyperactive children grown up: ADHD in children, adolescents, and adults*. New York: Guilford.
- Wheeler, M. E., Keller, T. E., & DuBois, D. L. (2010). Review of Three Recent Randomized Trials of School-Based Mentoring: Making Sense of Mixed Findings. Social Policy Report. Volume 24, Number 3. *Society for Research in Child Development*. http://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1063&context=socwork_fac

Assessment of Disruptive Behaviour Disorder, Academic Performance,
and School Social Behaviour of Children

- Wolraich, M. L. (1999). Attention deficit hyperactivity disorder: The most studied and yet most controversial diagnosis. *Mental Retardation and Developmental Disabilities Research Reviews*, 5, 163–168. doi:10.1002/(SICI)1098-2779(1999)5:3<163::AIDMRDD1>3.0.CO;2-T.
- Wright, J. C., Zakriski, A. L., & Drinkwater, M. (1999). Developmental psychopathology and the reciprocal patterning of behavior and environment: Distinctive situational and behavioral signatures of internalizing, externalizing and mixed-syndrome children. *Journal of Consulting and Clinical Psychology*, 67,95–107.
- Zentall, S. S., Smith, Y. N., Lee, Y. B., & Wieczorek, C. (1994). Mathematical outcomes of attention-deficit/hyperactivity disorder. *Journal of Learning Disabilities*, 27, 510–519.