



Journal of Applied Sciences

ISSN 1812-5654

science
alert

ANSI*net*
an open access publisher
<http://ansinet.com>

A Comparison of Emotional Intelligence and Behavior Problems in Dyslexic and Non-Dyslexic Boys

¹M. Narimani, ²S. Sadeghieh Ahari, ¹N. Homeily and ²H. Siahpoosh

¹Department of Psychology, University of Mohaghegh Ardabili, Ardabil, Iran

²Ardabil University of Medical Sciences, Iran

Abstract: The objective of the study was to compare emotional intelligence and behavior disorders in dyslexic and non-dyslexic boys. A random sample of 15 dyslexic boys were compared with matched controls, all aged 11-15 years. A causal comparative research method was employed and data was collected through administration of self report measures of emotional intelligence and behavior disorders. Results of the study revealed that emotional intelligence is correlated with behavior problems ($r = -0.54, p < 0.05$). Furthermore, dyslexic children scored lower on emotional intelligence and higher on behavior problems than their normal counterparts. As well as being congruent with earlier research, the present findings point to the importance of emotional intelligence in school achievement and behavioral health.

Key words: Emotional intelligence, dyslexia, behavior disorders

INTRODUCTION

The term learning disabilities has numerous definitions and a vast range in a way that according to the federal law learning disabilities have been defined as follow: it is a disorder in one or several fundamental processes which has caused problems in understanding and applying the spoken and written language and may appear as an imperfect ability in listening, thinking, speaking, reading, writing and spelling or in math performance. This term can include cases like perceptual disabilities, brain damage, brain's minor malfunctioning, growth aphasia and dyslexia. However, it does not include those children whose learning disabilities are due to inborn visual, auditory, motor disabilities, mental retardation, emotional disorder and cultural, economic, environmental deprivations (Abrams, 1986).

According to the above definition dyslexia is also one kind of learning disorders. Dyslexia is a disorder in which the person is unable to obtain spelling, speaking, reading skills which is consistent with his intelligence abilities though he has gained academic experiences. The primary type of dyslexic disorders results from the disrupted pattern of the nervous system and it is because of the imbalance of biochemistry or chronic nervous defect which leads to a disorder called inborn dyslexic retardation. In the secondary type of dyslexia, the potential learning ability and reading are normal but this ability is exploited inefficiently.

It is estimated that 4% of US school children are dyslexic. The results of a study by Chadwich *et al.* (1999)

on a group of dyslexic children and a nondyslexic group with different measuring instruments indicated that according to several scales, dyslexic children had a poorer performance in reading than nondyslexic children. The results of study revealed that in 45.15% of dyslexic people there is lack of behavior adjustment or unfavorable family relations. Other studies also referred to the simultaneous presence of behavior problems and dyslexia. The theories of failure in school and poor brain functioning have declared the direct relationship between delinquent behavior and learning disorders (Brooks, 1994). Researchers have pointed out that even though children with learning disabilities are aware of the social norms, they have a tendency to break these norms and their behavior disorders are more than those of normal children. They confess that they would like to do something illegal and antisocial. In other words, they use inappropriate ways to attract others' attention (Bryan and Bryyan, 1991). In another study it was found that these children face more social adjustments than normal children (Swanson and Malone, 1992). Studies on comparing these children with ordinary delinquents reveal that the percentage of delinquent people and people with behavior disorders is higher among children with learning disabilities (Taghavi *et al.*, 1999). Several studies have shown the relationship between dyslexia and ADHD (Robin, 2005; as cited in Lerner, 1993). Since, behavior problems in ADHD are considerably observable, the presence of similar and simultaneous behavior disorders in dyslexia is undeniable.

In a study on 25 dyslexic people in comparison with a control group, it was found that behavior disorders and problems related to lack of attention were more in dyslexic children than nondyslexic ones (Heiervang *et al.*, 2001). Most of the studies show emotional disorders and behavior disorders in dyslexic children as a case in point studies by Stanley *et al.* (1997) showed that one out of three dyslexic children suffer from aggression, confliction, autism, enuresis type II and sleeping disorders. Some studies have shown that students with learning disabilities have shown more aggression and misbehavior (Tur-Kaspa *et al.*, 1998). It was also found that there are antisocial behaviors, aggression and education deficiency in dyslexic children (Williams and McGee, 1994). There have been a few studies on the emotional intelligence and dyslexia. Emotional intelligence is such an important factor that the emotional capabilities of which is vitally important in making effective relations. Emotional intelligence can be applied to expressing the quality of relations, understanding people's emotions, sympathizing with others and being able to exploit a favorable mood. In fact this intelligence includes identifying one's own feelings as well as others' and applying it to make wise decisions in the daily life. Dyslexic students suffer from several socio-emotional problems which often include poor self-conception, not tolerating the failure, social anxiety, avoidance of assignments and poor and slow self management skills. These children fail to do things because of learning problems. They are confused in social circles and have negative feelings toward their own values. It seems that their emotional growth is different from that of normal children. The report from the first seminar of learning disabilities in Iran shows that most of the children who are incapable of learning in school, due to failure in their educational progress, become depressed, distressed, desperate and sometimes angry and have problems in their relations with others. In regards with educational, social and emotional problems and lack of success among dyslexic children, it seems that emotional intelligence is different in dyslexic and nondyslexic people and this conclusion can be the result of poor self-conception, not tolerating the failure, social alienation and poor self-management skills and etc. in dyslexic people. Therefore, the following hypotheses were made:

- There is a difference in emotional intelligence between dyslexic and nondyslexic people
- There is a difference in behavior disorders between dyslexic and nondyslexic people
- There is a relationship between emotional intelligence and behavior disorders among students

MATERIALS AND METHODS

Population and sampling: The population of this study included all dyslexic students from learning disabilities centers and Khazra Psychological Services Center (60 students) and all the students of the third grade of the ordinary Shahab Middle School (80 students) in the City of Ilam (Iran, 2007). The samples of this study included 15 dyslexic male students and 15 non dyslexic male students with an age range of 11-15 which were selected randomly and with their prior consent the questionnaires were administered. Administration order was the same and the control group was matched with the dyslexic group in terms of age and education.

Instruments: For data collection the following instruments were used:

Behavior problem questionnaire rater B: This questionnaire included 26 items. The teacher chooses the choices 0 meaning it is not true, 1 meaning it is relatively true, 2 meaning it is completely true. The scores obtained by answering 26 items which will have a maximum 52 will be identified. The time for completing this questionnaire is 7 min. This questionnaire will show 4 aspects of normal children, children with conduct disorders, children with emotional disorders and children with discriminability deficit. The Alpha Cronbach for this questionnaire has been reported to be 0.91 and validity 0.82.

Emotional intelligence questionnaire: This questionnaire includes 33 items and is made on the basis of 133 baran item scale which has a 5 choice scale. This scale would provide a one-dimensional assessment of the EQ; that is, it measures only one dimension. The reliability of this scale is 0.84.

Since, the object of the study was to compare emotional intelligence and behavior disorders in dyslexic and nondyslexic people, this study was a causal-comparative study. After data collection, they were analyzed through manova, one way ANOVA and Pearson correlation coefficient.

RESULTS

The results of Table 1 show that there is a relationship between emotional intelligence and behavior disorders along with its micro-scales. There is an adverse relationship between emotional intelligence and behavior disorders in a way that there is a relationship between high emotional intelligence and low behavior disorders and vice versa.

Table 1: Relationship between emotional intelligence and behavior disorders and its micro-scales using correlation coefficient

Variables	Emotional intelligence	Behavior problems	Hyperactivity	Anxiety disorders	Conduct disorders
Emotional intelligence	-	-0.54**	-0.53**	-0.57**	-0.45*
Behavior problems	-0.54**	-	0.99**	0.95**	0.95**
Hyperactivity	-0.53**	0.99	-	0.93**	0.93**
Anxiety disorders	0.57**	0.95**	0.93**	0.95**	-
Conduct disorders	-0.45*	0.95**	0.93**	0.95**	-

*: p<0.05; **: p<0.01

Table 2: The results of one way ANOVA to compare the means of groups having conduct disorders, anxiety and nondiscriminability

Sources	SS	df	MS	F	Sig.
Between groups	3541.21	2	1770.60	7.801	0.002
Within groups	5901.47	26	226.98		
Total	9442.69	27			

Table 3: Comparing the mean of groups having conduct disorders, anxiety and nondiscriminability according to emotional intelligence

Independent variables	Problem	Mean differences	SD	Sig.
Emotional intelligence	Conduct disorders	20.63*	9.81	0.045
	Anxiety disorders	-14.29	5.98	0.024
	Conduct disorders	-20.63*	9.81	0.045
	Nondiscriminability	-34.93*	9.52	0.001
Anxiety disorders	Nondiscriminability	14.29*	5.98	0.024
	Conduct disorders	34.93*	9.52	0.001

*: p<0.05

The results of Table 2 show that there is a significant difference in terms of emotional intelligence between groups of students with conduct disorders, anxiety and nondiscriminability (p = 0.002).

Table 3 shows that children with conduct disorders, anxiety and nondiscriminability are different regarding emotional intelligence in a way that children with conduct disorders have a higher emotional intelligence than other groups (20.63). The results of Table 3 show that children with anxiety disorders show a lower emotional intelligence than children with nondiscriminability. And this can be an indicator of the relationship between emotional intelligence and anxiety.

DISCUSSION

It seems that the variables of emotional intelligence and behavior disorders have a strong effect on each other in a way that the higher emotional intelligence will expect lower abnormal behaviors. Learning is such an effective factor that it influences on both variables in that learning will affect emotional intelligence and emotional intelligence will affect behavior disorders. In reviewing literature on learning disabilities, it refers to speech problems perceptual disorders, socio-emotional problems (Brayan, 1989) memory problems (Torgeson, 1989), attentional problems and metacognitive deficit. According to the difference between behavior disorders and emotional intelligence in the present study groups (confirming hypotheses 1 and 2), it can be inferred that

emotional intelligence can be a very important factor in behavior disorders in dyslexic children. The findings show that normal students enjoy a higher emotional intelligence and lower behavior disorders since people with high emotional intelligence are more successful in different fields than people with low emotional intelligence. These findings, in addition to concordance with the results of the present study, state that learning disabilities may be an important factor in the increase of emotional problems and vice versa, especially in that emotional problems might appear as a result of the efforts to get along with learning disorders in dyslexic children and frequent failures in comparison with normal nondyslexic children (Abrams, 1986). Considering the third hypothesis, the present study showed that there is a relationship between emotional intelligence and behavior disorders (-0.054), in other words the higher emotional intelligence, the lower behavior disorders. This finding is consistent with the findings of Taghavi *et al.* (1999) and Cicchetti and Toth (1998) in terms of simultaneity between behavior problems and communication limitations and in terms of social problems, not tolerating failures that all of which are the indicators of low emotional intelligence in children with learning disabilities. Studies show socio-emotional problems in dyslexic children and teenagers cause social defects and behavior problems, in other words most of these students lose the skills required for understanding others' feelings and their precise responses and having these skills require having a level of emotional intelligence consistent with their age. According to the results of the fourth hypothesis children with conduct disorders, anxiety and nondiscriminability problems are different regarding emotional intelligence; in other words, children with conduct disorders have a higher emotional intelligence and children with anxiety disorders have a lower emotional intelligence than the group with nondiscriminability. According to the findings of this study about the relationship between emotional intelligence and behavior disorders and about the limitations of the earlier studies, it can be said that dyslexic children compared to nondyslexic children have more behavior problems in all micro-scales that one of which could be low emotional intelligence. Earlier studies have shown that students with learning

disabilities have lower socio-emotional qualifications (Brayan, 1974). Also it is clear that students with learning disabilities in comparison with normal students experience a great deal of general anxiety (Margalit and Zak, 1984; Rodriguez and Routh, 1989). It is estimated that 25% of the children with learning disabilities show the criteria for anxiety disorders (Gresham *et al.*, 1999). Since, it is been found in this study that children with anxiety disorders have lower emotional intelligence than the other two groups, it can be stated that emotional intelligence is one of the factors which affect the anxiety level since children with lower emotional intelligence show worries and less effective and determined conversational behaviors (Wojnilower and Gross, 1998). They generally are alienated more by their peers (Swanson and Malone, 1992) which is in contrast with the traits of people with high emotional intelligence. Considering the relationship between emotional intelligence and conduct disorders (another finding of the study) it can be inferred that certain learning disabilities does not necessarily lead to aggression and delinquent behavior. Yet dyslexic children in the early years of school are apparently more vulnerable in conduct disorders and this may be due to the fact that the origins of delinquency can be found in those behavior problem that are followed by learning disabilities (Haney and Durlak, 1998).

CONCLUSION

According to the findings of the study on the relationship between dyslexia and behavior problems and relationship between dyslexia and emotional intelligence, some certain programs like social skills training, normal emotional training along with liberal arts and value systems can be used to increase emotional intelligence and its major indicators like emotional self-consciousness, self-regulation, self-actualization, independence, empathy, happiness, optimism, impulse control and above all children's adjustment. In other words, emphasis on education and improving different aspects of emotional intelligence can be effective in achieving the goal of education faster which is treating disorders and reducing behavior problems. The number of factors contributing to behavior problems can be reduced if adjustment is more emphasized and more successful along with other factors and if the focus of education is on treating dyslexia since emotions create priorities in thoughts, shape the memory, create different views on solving problems and facilitate creativity.

REFERENCES

- Abrams, J.C., 1986. On learning disabilities: Affective considerations. *J. Read. Writ Lear. Disabilit.*, 2: 189-196.
- Brayan, T.H., 1974. Peer popularity of learning disabled children. *J. Learn. Disabilit.*, 7: 621-625.
- Brayan, T., 1989. Conformity to peer by students with learning disabilities. *J. Learn. Disabilit.*, 22: 458-459.
- Brooks, R.B., 1994. Children at risk: Fostering resilience and hope. *Am. J. Orthopsychiatry*, 64: 545-553.
- Bryan, T. and J. Bryan, 1991. Positive mood and math Performance. *J. Learn. Disabilit.*, 24: 490-494.
- Chadwich, O., E. Taylor, A. Taylor, E. Heptinstall and M. Danckaerts, 1999. Hyperactivity and reading disability: A longitudinal study of the nature of the association. *J. Child Psychol. Psychiatry*, 40: 1039-1050.
- Cicchetti, D. and S.L. Toth, 1998. The development of depression in children and adolescents. *Am. Psychol.*, 53: 221-241.
- Gresham, F.M., K.L. Lane, D.L. Macmillan and K.M. Bocian, 1999. Social and academic profiles of externalizing and internalizing Groups: Risk factors for emotional and behavioral disorders. *Behav. Dis.*, 24: 231-245.
- Haney, P. and J.A. Durlak, 1998. Changing self-esteem in children and adolescents: A meta analytic review. *J. Clin. Child Psychol.*, 27: 423-433.
- Heiervang, E., A. Lund, J. Stevenson and K. Hugdahl, 2001. Behaviour problems in children with dyslexia. *Nord. J. Psychiatry*, 55: 251-256.
- Lerner, J., 1993. *Learning Disabilities: Theories, Diagnosis and Teaching Strategies*. Houghton Mifflin, Boston.
- Margalit, M. and I. Zak, 1984. Anxiety and self concept of learning disabled children. *J. Learn. Disabilit.*, 17: 737-739.
- Robin, P., 2005. Comorbidity of dyslexia, dyspraxia, ADD, ADHD and OCD. *Apropect. Epidemiological Study*, 16: 365-369.
- Rodriguez, C.M. and D.K. Routh, 1989. Depression, anxiety and attributional style in learning disabled and non-learning disabled children. *J. Clin. Child Psychol.*, 18: 299-304.
- Stanley, P.D., Y. Dai and R.F. Nolan, 1997. Differences in depression and self-esteem reports by learning disabled and behavior disordered middle school students. *J. Adolescence*, 20: 219-222.
- Swanson, H.L. and S. Malone, 1992. Social skills and learning disabilities meta analyze of the literature. *Sch. Psychol. Rev.*, 21: 427-443.

- Taghavi, M.R., H.T. Neshat-Dost, A.R. Moradi, W. Yule and T. Dagleish, 1999. Biases in visual attention in children and adolescents with clinical anxiety and mixed anxiety-depression. *J. Abno. Child. Psychol.*, 27: 223-223.
- Torgeson, J.K., 1989. Why IQ is relevant to the definition of learning disabilities. *J. Learn. Disabilit.*, 22: 484-486.
- Tur-Kaspa, H., A. Weisel and L. Segev, 1998. Attributions for feeling of loneliness of students with learning disabilities. *Learn. Disabilit. Res. Prac.*, 13: 89-94.
- Williams, S. and R. McGee, 1994. Reading attainment and juvenile delinquency. *J. Child Psychol. Psychiat.*, 35: 441-459.
- Wojnilower, D.A. and A.M. Gross, 1998. Knowledge, perception and performance of assertive behavior in children with learning disabilities. *J. Learn. Disabilit.*, 21: 109-117.