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Psychological Co morbidity in Children and Adolescents with Learning Disorders

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Introduction

Schools play a crucial and formative role in the spheres of cognitive, language, emotional, social and moral development of a child (Kapur, 1995). Academic skills such as reading, writing and mathematics form the foundations upon which a student's performance at school is assessed. A learning problem may therefore engender feelings of anxiety, inadequacy and shame, leading to behavioral disturbances in children of school age. Any negative feedback from school is likely to have an impact on the emotional, social and family functioning of a child.

Children with learning disorders (LD) are those who exhibit academic difficulties out of proportion to their intellectual capacities. They have impaired ability in learning the academic skills of reading, writing, arithmetic or spelling. As per the Diagnostic and Statistical Manual – IV (DSM-IV) (American Psychiatric Association, 1994) learning disorders are of four types: Reading disorder, Mathematics disorder, Disorder of written expression and Learning disorder not otherwise specified (NOS). Estimates of the prevalence of learning disorders range from 2% to 10% depending on the nature of ascertainment and the definitions applied (APA, 1994).

Psychological Co-morbidity

Learning disabilities are frequently associated with psychological problems (Rutter, 1974; Willcutt & Pennington, 2000). Results of population based surveys suggest that about 30% of learning disabled children have behavioural and emotional problems (Mc Gee et al, 1984). Psychopathology worsens with age in children with non-verbal learning disabilities (Rourke, 1988). Marked anxiety can appear when children with dyscalculia are confronted with reasonably simple arithmetic problems (Garnett & Fleischner, 1987). Ekblad (1990) found a positive correlation between psychological disturbance and poor school achievement among Chinese children. Shenoy & Kapur (1996) noted that 21 out of 88 children with learning disability had a co-morbid psychological diagnosis. Kishore et al (2000) reported that 21 out of 56 children with specific developmental disorders of scholastic skills had a co-morbid psychological disorder.

John (1989) found that one third of scholastically backward children had a co-morbid psychological problem. Of these, 16% had disorder of emotion, 6% had conduct disorder and 12% had mixed disorders of emotion and conduct. In a retrospective study at Child and Adolescent unit at National Institute of Mental Health and Neurosciences, Bangalore; Muthukumar et al (1999) found that 79% of children with learning disabilities had co-morbid psychological disorders, in which 32% had internalizing disorders, 28% had externalizing disorders and 19% had other disorders. In a study by Backer & Neuhauser (2003), on 77 children with dyslexia, psychological co-morbidity was found in 66.2 percent. Of these, the most frequent was adjustment disorders, followed by hyperkinetic disorders and anxiety. Willcutt & Pennington (2000) from University of Colorado reported that children and adolescents with reading disability exhibited significantly higher rates of all internalizing and externalizing disorders than individuals without reading disabilities.

Externalizing disorders

Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD)

One of the most common co-morbid conditions in childhood is that of reading disabilities and attention deficit hyperactivity disorder (Beitchman & Young, 1997; Biederman et al, 1991). Children with specific learning disabilities show an increased risk of hyperactivity (Cantwell & Baker, 1991; Faraone et al 1993). There is a strong relationship between inattentiveness and reading disabilities (Rowe, 1992). Reported rates of co-morbid ADHD in learning disabled children vary from about 10% to as high as 60% depending on the specific sample examined. (Halperin et al, 1984; Holborow & Berry, 1986). The sub group of children with ADHD plus LD deserves special clinical and educational attention (Biederman et al, 1991). Due to the high degree of overlap between reading disabilities and ADHD, detecting the existence of ADHD in the reading disabled child is important in order to gauge better the intervention required (Beitchman & Young, 1997).

Learning disabilities are accompanied by personality characteristics that predispose the individual to conduct disorder (Larson, 1988). McGee et al (1986), in a study in New Zealand, found that reading disabled boys were about three times as likely as their peers to have an externalizing disorder, particularly ADHD, CD or ODD.

Internalizing disorders

Depression

Kashani et al (1982) studied the co-occurrence of major depressive disorder and learning disabilities in 100 children aged 9 to 12 years, 62% of children with major depressive disorder (MDD) had learning disability (LD), whereas only 22% of non-depressed children had LD. The authors felt that this three fold increase in LD observed among MDD children implied either a causal relationship between LD and MDD or a predisposition for some children to manifest both conditions. Livingston (1985) reviewed the literature on co-morbid depression and learning disability and hypothesized three

potential relationships: Depression causes or exacerbates learning problems. Learning disabilities cause or exacerbate depression. A specific brain dysfunction can lead to both MDD and LD in some children. Livingston suggested that determining rates of LD in MDD children would be important in clarifying the nature of the relationship between these disorders. A link between suicide and learning disabilities has been suggested by Peck (1985). Fristad et al (1992) of Ohio State University, determined the occurrence of learning disability in 30 inpatient children aged 6 to 12 years with major depressive disorder and found that learning disabilities occurred seven times more often compared to community based rates (33% vs 4.7%). Huntington & Bender (1993) reviewed the literature from 1984 to 1993 on emotional well being in adolescents with learning disabilities. It was concluded that adolescents with learning disabilities have a less positive academic self concept, experience higher levels of trait anxiety and have higher prevalence of somatic complaints. Adolescents with learning disabilities had high rates of depression and alarming rates of suicide.

Anxiety disorders

Prior et al (1999) found that in children with arithmetic difficulties, phobic disorder or anxiety was the most common co-morbidity (30%). Of the children with both spelling and arithmetic difficulties, 24% had phobic disorder or anxiety. Cantwell & Baker (1991) noted that children with learning disabilities had increased rates of mood disorders

Conclusion

There is a high risk of psychological co-morbidity in learning disabled children. The co-morbidity of developmental dyslexia with both internalizing and externalizing disorders as well as with other learning disabilities underscores the need for cognitive and behavioural approaches in the remediation programmes offered to dyslexic children. Early diagnosis and intervention in children with learning disorders makes a substantial improvement in self confidence and social competency which helps them in opening windows of opportunity in school and in the world of work.

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