

UNDERSTANDING CO-MORBIDITY

The Co-occurrence of Difficulties / Disabilities / Disorders.

by

Kate Carr-Fanning

HADD Family Support Group (Vice Chair).

B.A. Psychology (ACD).

Ph.D. Candidate, Trinity College Dublin.

How Do Learning Difficulties Manifest ???

Understanding Special Needs

Depending on the country, approximately 3% to 10% of all students are identified as having a learning disability (LD) (Lyon, Shaywitz, & Shaywitz, 1996). "A LD is not a single disorder, but includes disabilities in any of seven areas related to reading, language, and mathematics. These separate types of LD frequently co-occur with one another and with social skill deficits and emotional or behavioural disorders ... disabilities in the areas of mathematics, language, spelling or writing, motor skills and coordination, and attention or activity. These "skills deficits," "disabilities," or "disorders" may occur in isolation or in combination ... The scientific world has gone to great lengths to prove what every clinician and educator already knows: a child whose development is atypical, delayed, abnormal, or deficient, in only a single area is unusual." (Gilger & Kaplan, 2001, p. 465-467).

Why Does Co-morbidity Occur ???

Understanding Diagnosis

Complex developmental problems create difficulties in the assessment of individual differences which are necessary for the provision of personalized services and supports. Mario Maj (2005) suggested that co-morbidity is the norm because current classification systems artificially split complex conditions, sometimes even omitting symptoms in pursuit of discreet categories. There are a number of difficulties encountered when trying to create special education categories (Kavale & Forness, 1998). Many symptoms overlap, for example, one of the diagnostic criteria for Autism is disorders of language; yet speech and language delays or disorders also represent their own category of special needs (Herbert, 2003). Issues such as this make differential diagnosis, characterization / definition of disorders, and identifying their causes extremely difficult (Giliger & Kaplan, 2001). For example, ADHD frequently has a co-morbid LD. However, the inattention characteristic of ADHD make it difficult to determine if academic difficulty is due to the presence of a LD or is a consequence of attention deficits (Semrud-Clikeman et al., 1992; cited in Zametkin & Ernst, 1999).

There is a current (and somewhat cyclical) move toward considering children with special needs as 'atypical' in development (see Simeon & Rosenthal, 2001; as cited in Herbert, 2003). In the spirit of inclusion in society, the perspective of Atypical Brain Development (ABD) (Giliger &

Kaplan, 2001); which draws focus away from deficits and represents a move toward viewing individual differences, strengths, and weaknesses as part of development, is a more progressive view and includes the exceptionally abled not only the disabled. However, such a perspective does not suggest that this detracts from the current definitions of specific disorders (Gilger & Kaplan, 2001). Take a condition such as dyslexia, for example, the deficits or cognitive characteristics associated with the reading difficulties are different from cognitive deficits involved in attention or social functioning (Lyon, Shaywitz, & Shaywitz, 1996). However, debate exists as to the specific criteria or symptoms required for dyslexia. Recent research from the University of Hong Kong, suggests that dyslexia is characterized by the co-existence of visuospatial and phonological processing deficits. However, according to The Oxford Handbook of Psycholinguistics (Gaskell & Altman, 2007), phonological processing deficits alone are sufficient and primarily responsible for the condition.

As with all assessment and identification it is not prudent to be too definitive, but to treat each child and their unique needs individually. We cannot move away from classification systems and diagnosis; as these are a vital component in accurately identifying the child's unique needs, and also in providing and assessing interventions. However, the primary focus of such a process tends to seek and find the primary deficit while ignoring other imperative aspects of the child's needs. Diagnostic systems such as the DSM-IV are hierarchical in nature; when there is a presence of two or more diagnoses, one is considered primary, and it is considered to account for much of the symptoms in the secondary diagnosis (Kring et al., 2007). However, mounting evidence suggests that many conditions exist concurrently (Farone, 2001).

What are the Consequences of Co-morbidity ???

Understanding the Impact of Multiple Problems

The consequences of an unidentified co-morbid condition are serious! If there is no recognition of the co-morbid diagnosis then only some or part of the child's academic, social, emotional, or behavioural needs are recognised and catered for. Many such children become frustrated and develop secondary emotional problems (Silver, 1981; cited in Herbert, 2003). Co-occurring problems such as anxiety, depression, social, emotional, and / or behavioural problems are frequently observed where the child has a diagnosed LD. This has been attributed to causal factors such as a lack of self-esteem and frustrations due to their poor school performance or social standing (Herbert, 2003). Co-morbidity may increase this vulnerability further. Children and Young People (CYP) with a LD and ADHD are known to develop significantly more behavioural problems (e.g., aggression and withdrawal) than CYP with only one of these diagnoses (Cruddace, 2006; cited in Cruddance & Riddell, 2006).

Furthermore, co-morbidity creates more problems than just one LD added to another. The combination of deficits typically exacerbates the problem making the learning difficulties more challenging and resistant to intervention (Gilger & Kaplan, 2001). For example, CYP with a specific LD and ADHD have more severe learning problems than children who have LD but no ADHD, and also more severe attention problems than children who have ADHD but no LD (Cruddance & Riddell, 2006).

How Common is Co-Morbidity ???

Some Statistical Evidence

- “Co-morbidity tends to be the norm rather than the exception...” (Kring et al., 2007, p. 71). In a study based on data from the Australian National Survey of Mental Health and Well-Being; 21% of people fulfilling DSM–IV criteria for any disorder met the criteria for three or more co-morbid disorders (Andrews et al., 2002).
- In Sweden a study of school aged general education children, Kadesjö and Gillberg (2001), found that 87% of those diagnosed with ADHD met the diagnostic criteria for one or more psychiatric disorder or developmental problem.
- A clinical study in the US documented the diagnosis of all CYP who were referred for psychological assessment by their school, due to academic failure or behavioural problems. They found that the majority (58%) had a diagnosis of three types of LD (dyslexia, dysgraphia, and dyscalculia) with co-occurring ADHD (Crudace, 2006; cited in Cruddance & Riddell, 2006). In another clinical study 50% of CYP diagnosed with both ADHD and Dyspraxia were found to also have a co-morbid language disorder (Duel et al., 2003).
- In a metaanalysis of the literature documenting referred clinical samples of children with ADHD; between 15% and 50% were found to have reading difficulties, between 24% and 60% mathematical difficulties, and anywhere from 24% to 60% show problems with spelling. Please see Barkley (1990) for an overview of these studies.
- In a community based sample in the U.S.A., 50% of children diagnosed with ADHD also meet the diagnostic criteria for Dyspraxia; and of these 60% also met the diagnostic criteria for an Autistic Spectrum Disorder (e.g., Asperger’s Syndrome) (Gillberg, 1999; cited in Gillberg et al., 2004).
- Research does indicate an overlap between ASD and ADHD, and this is often attributed to deficits in Executive Functions. For example, a sample of CYP with ADHD 80% were said to display significant 'Autistic' traits (Kirby & Salmon, 2007). In another study, Fitzgerald and Corvin (2001) found that 21% of CYP with ADHD also had a diagnosis of Asperger's Syndrome.

Where Do We Go From Here ???

Catering for Multiple Special Needs

Professionals need to ensure a differential diagnosis includes a process of excluding coexisting conditions which are symptomatically distinct (and require distinct management) (Zametkin & Ernst, 1999). Avoid the mistake of misattributing symptoms as secondary to an identified condition, and follow best practice guidelines in diagnosis and recommendations. Thus, if these are successfully done, and provided that all the individuals needs are identified and catered for; then every individual can meaningfully participate in education and society to the fullest of their potential.

Furthermore, it is always important to view each individual as unique in their strengths, deficits, and potentials. A diagnosis of one or more conditions / disorders does not define the individual. Classification is only a tool in identifying difficulties which may exist so they can be supported, and it also highlights the person’s strengths which can be a focus for positive development and feelings of success. This is why we say ‘a child with Autism’ and not ‘an Autistic child’. Remember ... labels only define the contents of canned goods!

Suggested Further Reading:

- Hulme, C. J., and Snowling, M. J. (2009). *Developmental Disorders of Language Learning and Cognition*. Wiley-Blackwell: Massachusetts.
- Neale, M. C., and Kendler, K. S. (1995) Models of comorbidity for multifactorial disorders. *American Journal of Human Genetics*, 57, 935-953.

References:

- Barkley, R. A. (1998). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment (2d ed.)*. New York: Guilford Press.
- Cruddace, S. A., and Riddell, P. M. (2006) Attention processes in children with movement difficulties, reading difficulties or both. *The Journal of Abnormal Child Psychology*, 34, 675-83.
- Duel, B. P., Steinberg-Epstein, R., Hill, M., Lerner, M. (2003) A survey of voiding dysfunction in children with attention deficit-hyperactivity disorder. *The Journal of Urology*, 170, 1521–1523.
- Faraone, S. V. (May, 2001) *Patterns of comorbidity in ADHD: Artefact or reality?* Program and abstracts of the 154th Annual Meeting of the American Psychiatric Association; New Orleans, Louisiana. Industry Symposium 46B.
- Gaskell, M. G. & Altman, (2007). *The Oxford Handbook of Psycholinguistics*. Oxford University Press, New York.
- Gilger, J. W., and Kaplan, B. L. (2001) Atypical brain development: A conceptual framework for understanding developmental learning disabilities. *Developmental Neuropsychology*, 20(2), 465-481.
- Gillberg, C., Gillberg, I. C., Rasmussen, P., Kadesjo, B., Soderstrom, H., Rastam, M., Johnson, M., Rothenberge, A., and Niklasson, L. (2004) Co-existing disorders in ADHD - implications for diagnosis and intervention. *European Child and Adolescent Psychiatry*, 1(13), 80-92.
- Herbert, Martin (2003). *Typical and Atypical Development: From Conception to Adolescence*. BPS Blackwell, MA.
- Lyon, R. G. (1996) Learning Disabilities. *The Future of Children: Special Education for Students with Disabilities*, 6(1), 54-76.
- Lyon, R. G., Shaywitz, S. E., and Shaywitz, B. A. (2003) Defining dyslexia, comorbidity, teachers' knowledge of language and reading. *Annals of Dyslexia*, 53(1), 1-14.
- Maj, Mario (2005) Psychiatric comorbidity: an artefact of current diagnostic systems? *The British Journal of Psychiatry*, 186, 182-184.
- Mayes, S. D., Calhoun, S. L., and Crowell, E. W. (2000) Learning disabilities and ADHD: Overlapping spectrum disorders. *Journal of Learning Disabilities*, 33, 417-24.
- Hinshaw, S. P. (2002) Preadolescent girls with attention-deficit/hyperactivity disorder: I Background characteristics, comorbidity, cognitive and social functioning, and parenting practices. *Journal of Consult Clinical Psychology*, 70, 1086–1098.
- Kadesjö, B., and Gillberg, C. (2001) The comorbidity of ADHD in the general population of Swedish school-age children. *Journal of Child Psychology and Psychiatry*, 42, 487–492.
- Kavale, K. A., & Forness, S. R. (1998) The politics of learning disabilities. *Journal of Learning Disabilities*, 33, 239-256.
- Kring, A. M., Davison, G. C., Neale, J. M., and Johnson, S. (2007) *Abnormal Psychology (10th ed.)*. J. Wiley, NJ.
- Zametkin, A. J., and Ernst, M. (1999) Problems in the management of attention-deficit hyperactivity disorder. *Northern England Journal Medicine*, 340, 40-46.