

CHAPTER 17: NEURODEVELOPMENTAL DISORDERS RESEARCH QUESTIONS

17.2 SPECIFIC LEARNING DISABILITIES

- Are attentional deficits common to a number of different specific learning disorders?
- Why are 60-80% of those diagnosed with Dyslexia boys?
- Why are boys four times more likely than girls to be diagnosed with stuttering (Childhood-onset Fluency Disorder)?
- How does the expression of certain genes lead to the abnormal brain development associated with Dyslexia?
- Are abnormalities found in the temporo-parietal areas of the brain in autopsy studies merely representative of the consequences of a lifetime of poor reading rather than a causal factor in dyslexia?
- To what extent is Dyscalculia an inherited disorder?
- Are disorders such as Speech Sound Disorder and Childhood-Onset Fluency Disorder merely the result of problems with the physical articulation of sounds?
- Does anxiety cause stuttering, or is it just a consequence of stuttering?

17.3 INTELLECTUAL DISABILITIES

- How does maternal age contribute to chromosomal abnormalities in Down Syndrome?
- To what extent is Fragile X Syndrome a single unitary disorder?
- To what extent is maternal substance abuse a cause of Intellectual Disabilities that is independent of the context (e.g. economic and social deprivation) in which the offspring is often raised?
- Is maternal crack cocaine use a significant factor in the development of some offspring intellectual disabilities?
- To what extent does social deprivation and poverty constitute a form of intellectual impoverishment that can cause Intellectual Disabilities?
- Can lack of stimulation during early childhood directly result in permanent impairments in brain function?

17.4 AUTISTIC SPECTRUM DISORDER

- Why do individuals with autistic spectrum disorder usually perform much better on test of visuo-spatial ability than tests of social understanding or verbal ability?
- Why has the incidence of autistic spectrum disorder increased significantly during the past 20 years?
- What are the genes responsible for transmitting autistic spectrum disorder, what are the gene sequencing and structure abnormalities that may mediate autistic symptoms, and how does the expression of such genes affect the symptoms of autism?
- What role, if any, do brain neurotransmitter abnormalities have in causing the symptoms of autism?
- Does the measles-mumps-rubella inoculation cause autistic spectrum disorder in vulnerable children?
- Do childhood infections play a role in causing symptoms of autism?
- Do individuals with autistic spectrum disorder have impairments on all the cognitive skills that contribute to executive functioning?
- Is the need to systematically analyse information a characteristic that defines individuals with high functioning autistic spectrum disorder?
- Are behavioural interventions effective when used with autistic clients?