The etiology of intellectual disabilities and autism

Health & Medicine, Disability

Genetics seems to be an important factor, as the sibling rate for the core syndrome falls at about 5% while the autism spectrum disorder is probably around Twin studies have shown concordance rates of 60-89% in minimization twins and under 5% in dogmatic twins, which suggests a heritability of close to 100% in cases that aren't affiliated with specific medical disorders(Gilbert). Some aberrant or variant genes may yet be implicated, examples including neurologist and glutamate genes(Gilbert). It is likely that there is a large mount of genes, more than 30, involved in the increase of susceptibility for autism spectrum disorders(Gilbert). T is now known that defined mutations, genetic syndromes, and De novo copy number variations (primarily deletions) make up 10-20% of Autism Spectrum Disorders(l_cavalier). Proportional portions of the brain are also often dysfunctional in autism and abnormalities in the in the magical and cerebellum are often present(Gilbert). In addition, unchallengeable is over-represented in autism, more specifically in those with IIS succeeding 70(Glibber). Other abnormalities include hypothermia's in the blood, dopamine and endorphin dysfunction, and excess of gall fritillary acidic protein in the cerebration's fluid(Gibber).

Without any known genetic predisposition certain acquired brain lesions can cause autism, although some studies indicate interaction with autism susceptibility genes may be occurring. It is difficult to say what can be done to prevent autism(Gilbert). No known drugs are known to have a substantial effect on the outcome of autism and despite what Jenny McCarthy pushes, vaccinations do not cause autism. Until the causes of autism are discovered it is unlikely we will ever know for a certainty how to prevent it.

People with autism are often no stranger to neurophysiology deficits, more specifically executive function deficits. Some of these executive function deficits include poor planning ability, low motivational level, difficulty with time concepts, difficulty " maintaining", difficulties with empathy, difficulty grasping the " theory of mind", decreased drive for central coherence(Gilbert). People given a diagnosis ofchildhoodautism also fall into the low range of IQ, at below 80(Glibber). Those with Speaker's Syndrome usually boast an IQ above that typically seen in autism, usually above 70(Glibber).

The etiology of intellectual disability is also difficult to pinpoint, due to the fact that in approximately half the cases of intellectual disability the cause is unknown (McDermott). The etiology is defined as " a multicultural construct composed of four categories of risk factors; biomedical, social, behavioral and educational, that exist across time, including the across the life of the individual and across generations from parent to Genetic actors such as those associated with Down Syndrome can be highly associated but not necessarily viewed as casual (McDermott).

Algorithms have been suggested for the evaluation of the individuals relying onfamilyhistory, physical findings, and neurological functioning (McDermott). Somediagnostictechniques include chromosome micro-dissection, fluorescence in situ habitations and more. Other potential causes include telemetric rearrangements/chromosomal anomalies for different forms of intellectual disabilities (often Down Syndrome), tourism in 95% of the cases of Down

Syndrome, mutations in sex-linked single genes in Fragile X/Williams Syndrome/ Parade-Will Syndrome, neural tube defects in spinal biffed, head trauma later in life, and many (McDermott). Mothers and newborns should avoid infections, head trauma, harmful chemical and compounds, alcohol, environmental chemicals andfood/drink deprivation in order to prevent intellectual disability(McDermott). Beyond this, much about intellectual disability is unknown and thus, is hard to prevent. 2. Discuss the role of IQ and adaptive behavior in both intellectual capabilities and autism.

Two defining characteristics of autism and intellectual disability are deficits in IQ (not in Espaliers however) and adaptive behavior. The PAP describes adaptive behavior in terms of individual performance in relation to personenvironmentinteractions and includes it with social skills and peer acceptance as a component Of social competence(Forthwith-Duffy). Usually, the common definition of mental retardation implies that intelligence and adaptive behavior are distinct and not overlapping constructs(Forthwith-Duffy).

Three dimensions of adaptive behavior are expressed by observable, practical, conceptual and social skills(Forthwith-Duffy). For quite some time IQ was the only criterion given consideration in intellectual disability diagnosis(Forthwith-Duffy). Studies have demonstrated that individuals with both intellectual disability and autism demonstrate significantly more impairments in adaptive behavior as opposed to someone with just one(Lacerative).

Individuals with Autism Spectrum Disorders and those with intellectual disabilities seem to demonstrate different adaptive behavior profiles. Those with intellectual disability demonstrated a " flat" profile, indicating consistent scores(Lacerative). The autistic groups (verbal and non- verbal respectively), however, had a more scattered score (meaning more variance) with the non verbal group scoring lowest incommunicationand the verbal group scoring lowest in colonization(l_cavalier). Adaptive behavior scales often undertake adaptive behavior and maladaptive behavior.

In the last 20 years there have been many developments in asymmetrically valid adaptive behavior scales, some boasting a reliability of . 90(Forthwith-Duffy). Adaptive behavior is Often defined in terms Of its relationship to cultural expectations and environment. A succinct way of delineating the differences between IQ and adaptive behavior is defining an intelligence test as something that measures performance or what an individual " can do" and adaptive behavior scales report what an individual " does Duffy).

Four categories of intellectual disability are named depending on IQ score. With an IQ of 55-69 the designation is " mild", with an IQ of 40-54 the designation is " moderate", with an IQ of 25-39 the designation is " severe" and tit an IQ below 25 the designation is unfortunately, public school data on intellectual disability is unreliable due to intelligence tests not be administered universally (McDermott). It has been recognized for quite some time that an IQ of above 70 is one of the strongest predictors of a good outcome in autism.

Individuals who have autism and an IQ of under 70 usually have to attend specialist autism classrooms. People given a diagnosis of childhood autism also tend to end up in the low range of IQ, at below 80(Gilbert). Those with Speaker's Syndrome usually have a Geiger IQ than that typically seen in autism, usually above 70(Gilbert). As I noted before there IQ often determines their classroom environment which determines part of their habits of colonization. In Bear (2004), the author replies to queries by lava. N. Years about various 3. Specs of theeducationof children with autism and developmental disabilities. In his responses, inferences to constitutional principles, core principles, and public policy can be drawn. What are the constitutional principles, core principles and public policies that might be related to the Bear 2004) replies to the layovers? Describe and explain how they are related to the educational issues discussed in the letters. Beginning in the asses, the disability-rights revolution introduced a new era of public policy, core principles and constitutional principles(Turnbuckle).

PARA v. Commonwealth of Pennsylvania and Mills v. D. C. Board of Education guaranteed a right to education. Next, came Wyatt v. Stickiness which guaranteed a right to treatment(Turnbuckle). These three cases would prove to be landmarks in the disability-rights revolution, influencing decisions to this very day. This is demonstrated by Donald Bear nicely. According to the Individuals with Disabilities Education Act every child with a disability is promised a " free and appropriate public education"(Bear 2005).

As the most studied and best refined method of teaching for Autism, Applied Behavior Analysis should be indebted to the individual by his constitutional

rights. ABA has has 1 well controlled clinical trial as well as 4 other controlled trials. This is combined with the 500 or so studies that have been done on ABA 200 of which had a convincing experimental design(Bear 2005). ABA is the only theology that can promise Autistic persons an approximately 50% chance for an independent adult life(Bear 2005). Unfortunately, very few U.

S centers offer effective ABA to children with autism with adequate federal or state agency funding(Bear 2005). In accordance with the Board of Education v. Rowley case which guaranteed disabled individuals the right to a free, appropriate individualized and beneficial education in the least restrictive environment, ABA should be offered at all school with students who are disabled(Turning). In ABA the highest priority is communication skills allowed by social skills, followed by self-care skills and finally, followed by intellectual skills.

This order is rarely followed in schools without ABA- The effectiveness of ABA depends on analysis and thus, teachers with minimal training are thereby inadequate(Bear 2005). When individuals are guaranteed an individualized and beneficial education it is more than implied that they receive the most efficacious treatment, which in this case is ABA. Applied Behavior Analysts have been developing language and communication skills in children with severe developmental delays for over 30 years(Bear 2005).