Unit One Project; Autism

Autism is a spectrum disorder which includes a range of symptoms. Since there is no known cause, a cure for autism has yet to be found. People with autism are generally found to be impaired socially and communicably. While they do have hope for normal function in society, individuals with autism require special attention and continuous work in order to defeat their disorder.

Imagine a life without hugs, feelings, friends, or family bonds. This has become a stereotypical idea of what autistic disorder encompasses. Contrarily, the truth is that autistic individuals can think, feel, love, work, and function on levels comparable to those of “normal” people. Autism is a spectrum disorder, meaning its effects range from extremely mild to severe. It debilitates social and communication skills, often rendering autistic individuals as inadequate and isolated from society. While no particular cause has been pinpointed for autism, researchers feel that genetic and environmental factors likely play a part in this developmental disorder. Race, gender, ethnicity, lifestyle, and social class are now labeled irrelevant in the frequency of autism (3). Despite many setbacks and challenges, children with autism are capable of learning and becoming productive members of society.

Autism is defined as “a complex developmental disorder that appears in the first three years of life, though it is sometimes diagnosed later. It affects the brain’s normal development of social and communication skills.” (5) It is one of five disorders labeled a “Pervasive Development Disorder,” which are characterized by “severe and pervasive impairment in several areas of development.” (3) Autism, which is a physical condition, is linked to abnormal biology of the brain. Most children with autism are normal in appearance and are set apart only by their
peculiar behaviors. As a spectrum disorder, autism includes a wide scope of effects which may have little or a significant impact on an individual’s life.

As its label of “developmental disorder” suggests, autism appears in the developmental years (the first three years of life). Initial signs that a child is autistic may include difficulties with social interaction, manipulation of his/her imagination, and communication with parents/other children. For example, while Tommy who has autism, may not be interested in playing “Cowboys and Indians” with the kids down the street, he may enjoy sitting in his room dribbling a basketball for extended time periods. Obsession with the repetition of certain events is common among autistic individuals. Autistic children may watch the same television show daily and become emotionally distraught when not allowed the opportunity to view this particular program. Similarly, autistic individuals may display an inexplicable attachment to tangible objects such as toys, clothing, or blankets. Oversensitivity in sound, smell, taste, touch, and sight are common effects of autism (5). It would not be unusual for an autistic child to be unalarmed by an extremely loud noise such as a gunshot or clapping thunder.

Communicatively, autistic persons may find it difficult to initiate conversation and may take longer to develop language skills. In extreme cases, language may not develop at all. While engaged in conversation, autistic individuals may avoid eye contact and repeat questions instead of answering them. Communication through gestures may come more naturally to autistic people than through words. People with mild autism may have no trouble with eye contact or lengthy conversations- all of the difficulties with communication described are general symptoms/signs of autism. Socially, autistic individuals may come across as cold due to their lack of desire to make friends and show affection. Some may feel a need to be isolated, shunning children their age and not responding to others’ emotions. Parents of autistic children may not be able to
cuddle or comfort their offspring without getting an unpleasant reaction. Consider a five-year-old autistic boy who skins his knee while playing outside. Instead of crying and running to his mother, he may show no sign of pain and allow his wound to bleed freely. A lack of sensitivity to physical contact may be one reason why people with autism don’t seek happiness through affection. Diagnosing autism includes pinpointing many of the aforementioned symptoms and analyzing the source of each symptom.

When autism first appears, many parents brush off its symptoms as a sign of development within their child. However, a culmination of abnormal characteristics in a child may be reason enough for his/her parents to go through a screening process for autism. A diagnostic evaluation of autism includes both physical and neurological examination. (5) In Laymen’s terms, autism is diagnosed by observing the behavior of a child and judging the severity of “abnormal” tendencies. A person with mild symptoms of autism may be diagnosed with pervasive development disorder rather than full-blown autism. Currently, there are approximately 1.5 million cases of autism reported in the United States. This number may be far from the actual number of individuals with the disorder because many people are never diagnosed.

In rare cases, autism may actually bring upon spectacular talents. There are individuals labeled “autistic savants” with extraordinary capabilities in areas such as mathematics and the arts. These individuals are so amazing that there has been a movie created which captures the vast knowledge attainable by certain autistic savants. “Rain Man,” a 1988 film starring Dustin Hoffman as Raymond Babbitt, an autistic savant who can memorize books and complete math instantaneously, was inspired by Kim Peek, a real life savant. Kim has read and memorized approximately 7600 books to date, and continues to explore all forms of printed material. (1).
With autism so prevalent in today’s society, a race for a cure is a constant battle. While there is no specific cure for this disorder, there are many cases where significant improvement has been evident through persistent treatment and aging. Expectations for the progress of this disorder depend on the severity of each individual case. In the most severe cases, institutionalization may be suggested for a given period of time. If autism is detected at the beginning of its development, the likelihood of significant improvement is greatly increased. Many programs, such as the Treatment and Education of Autistic and Related Communication Handicapped Children (TEACH), are dedicated to helping children with autism and similar disorders. Rumors of “miracle cures” for autism such as specific diet pills have been tested and have proven to be absurd in their origins (6). A large percentage of autistic individuals can live and function in normal communities on a daily basis, and this percentage is increasing as research efforts continue.

Case Study: Exploring the phenomenal capabilities of an autistic savant.

Caleb Hamilton showed signs of abnormality from his beginning on December 20th, 1980. His head was oversized and he lacked a corpus colosum, the tissue which connects the left and right hemisphere of the brain. He was diagnosed with brain damage and his parents, Cathy and William Hamilton, were cautioned that he might have persistent brain damage throughout the course of his life. However, by the age of five, Caleb began to show that his brain was far from damaged- he began to read books which he found around his house as well as telephone directories and maps. His parents, finding it amusing to see their young son engrossed in his reading, asked him to explain to them what he was learning. He then proceeded to recite all of the “C” listings from their area phone directory. Stunned, Cathy and William took their son to a
doctor to be evaluated. Soon after, Caleb was tested and diagnosed as an “autistic savant” because of the combination of his unusual behavioral tendencies and his talent in memorization.

Since he was first diagnosed, Caleb has been monitored closely by a team of select doctors. Signs of autism which are apparent with Caleb include a lack of affection and uncontrollable tantrums from time to time. While his autism is mild, his savant disorder has a significant effect on his everyday life. In a study of Caleb’s ability to retain information, he was given the complete works of Shakespeare at age 11. He read the book, in its entirety, within a 6 hour time span. Two months later when asked about Act II, Scene II of Hamlet, Caleb began reciting it perfectly, including director’s notes and other cues. Soon after he began reciting the play, however, he threw a tantrum and refused to finish with the experiment.

As Caleb grew older and continued reading and working on his social development, it became easier to study his disorder. His tantrums became less frequent and he was more cooperative with the doctors. At age 16, he read Webster’s Collegiate Dictionary and could afterwards recite the first 45 words with exact definitions on cue. Even more amazing was the hobby that Caleb acquired at age 18—mathematics. Caleb’s mathematic memory was one of instant calculation. For example, when asked “How many weeks did Richard Nixon serve as President of the United States of America?” Caleb automatically recalled Nixon’s term, how long it was, and converted this number into weeks on the spot.

Where Caleb’s abilities came from is an enigma which continues to puzzle researchers still today. While he is labeled “disabled” by society’s standards, his capabilities far surpass those of many perfectly “normal” individuals today. This case study is unique because rather than trying to cure Caleb, doctors are trying to understand and manipulate his abilities. It is difficult to trace things such as brain waves on Caleb because of his fear of being touched by
other human beings. Any tests which are too hands-on always result in a tantrum and a postponement of the experiment. Presently, the most sensible plan of action for Caleb’s condition is to let him live as normal a life as possible while learning from his progress. Autistic savants are fascinating individuals who unknowingly defy many rules of man’s intellectual limits.

While some autistic savants lose their spectacular abilities for no known reason, others retain their abilities throughout life. Caleb, who is now 22 years old, continues to read and gradually increase his knowledge as time passes. He shows no sign of mental deterioration and puzzles both his parents as well as society with his abilities.
References

http://www.wisconsinmedical society.org/savant/kimpeek.cfm via the World Wide Web

2) National Institute of Child Health and Human Development. How many people have autism? September 2002. [abstract] Available from:


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