**Autism and the Diagnosis of Autism in the Society**

**Abstract**

Autism is a developmental disorder that impairs one’s ability to communicate and interact with others from childhood. Despite autism being a treatable condition, more people especially children have continued to be diagnosed with it. Autism is present during the early development of the brain and can affect a child’s physical health, intellectual abilities or even cause trouble with motor coordination. The seriousness of this condition has caused healthcare organizations and the government to increase their efforts through different health programs including public awareness and early diagnosis to children for effective treatment. Similarly, extensive research has been conducted to understand more about the autism. However, experts have not established the real cause of autism through different research has suggested different causes of this developmental disorder. This paper explores the why causes autism and why many children are diagnosed with it through scientific evidence suggesting that both environmental and genetic factors cause autism and cultural evidence about autism.

**Scientific and cultural questions**

Autism is a serious mental developmental disorder that affects a person from childhood impairing one’s ability to communicate and interact with others. Although it is possible for Autism to be diagnosed at any age, it is referred to as a “developmental disorder” because its symptoms appear at childhood or within the first two years after birth. Additionally, Autism involves a certain set of behaviors and also a “spectrum condition” that affects people differently and to various extents. According to a guide established by the American Psychiatric Association (2013) called “Diagnostic and Statistical Manual of Mental Disorders (DSM-5)”, children or people affected by Autism exhibit various signs such as restricted interests and repetitive behaviors. Moreover, such people also show signs of difficulty in communication and interaction with others as well as the inability to properly function in their work, schools or other areas.  This mental condition also affects all people from all racial, ethnic or economic groups.

In the society, the increasing number of diagnosis is significant in the planning of care as well as promoting ne interventions in the society that can be used to promote the health and wellbeing of individuals that are diagnosed with autism. This is because autism is a lifelong developmental disorder that influences the nature of interaction of an individual in the society mainly due to the emotional, cognitive and sensory disabilities caused by autism(Speaks, 2011). During the developmental stages of a child, the perception of the world around them is based on the emotional reaction to interactions with others and communication. However, autism affects the development of children in the society through the alteration communication, emotional and cognitive abilities of the children therefore preventing the normal life transition in the environment.

The number of children diagnosed with autism or other related disorders have continued to increase with alarming rates. In the 1970s as well as 1980s, children with autism were few with about one child having this mental condition in every 2000 children. However, children with autism in the recent past and current times have increased immensely raising a debate trying to establish whether autism is really in the rise or the current statistics just reflect the expanded definition of the condition, increased awareness of the condition and other factors (Autism and Developmental Disabilities Monitoring Network Surveillance Year 2008 Principal Investigators, 2012). Similarly, the debate also seeks to establish the cause autism increase if it’s really on the rise as believed by most experts. Autistic conditions among children are mainly characterized by deficits in the recognition of emotions as well as the expression of emotions through facial expression, vocal intonation and body movements. In the study, 55 children that were presenting with autism were compared with 58 children with typical development(Fridenson-Hayo et al, 2016). Through the evaluation of voice, facial and bodily expression, the study established that autism deficits are universal across various cultures. This is because autism conditions are associated with neurodevelopmental conditions that affect the cognitive functioning of individuals.

According to the Autism and Developmental Disabilities Monitoring (ADDM) report by the Centers for Disease Control and Prevention (2018), the prevalence of autism in America has increased greatly from the previous statistics. This report concluded that autism infection rate in 2018 had grown to one child in every 59 born children in America which is a double increment of the 2004 rate which showed that one child had autism in every 125 born children. As a result, most children continue to be diagnosed with autism particularly because of the existing inevitable known and unknown causes of this mental condition as well as well as other factors such as appropriate interventions and early diagnosis which can lower the rate of autism infection to children. Nevertheless, autism is a treatable condition, and thus appropriate measures such as early diagnosis and proper interventions can lead to improved outcomes for the victims.

Scientists are yet to establish all causes of autism and are also uncertain of the various factors that cause autism (Speaks, 2011). Despite there being no known single cause for autism, it is generally accepted that it is caused by abnormalities in a person’s brain function or structure. For instance, there is a difference in structure or shape of the brain of children with autism and others without, identified through the brain scans. However, although researchers do not know the exact cause of this mental condition, they have continued to conduct intensive research on different theories including connections among genetics, heredity as well as medical problems (American Psychiatric Association, 2013). Experts have also established that other factors such as biologic and environmental factors may cause autism or make a child more vulnerable to this disorder.

Research suggests that genes can act together with environmental influences to affects a child’s development in a way that causes autism. Experts provide that there is a reason to believe that genes have a crucial role in the development of autism. For instance, it was established that fraternal twins are less likely to be both affected by autism than identical twins with similar genes. Additionally, research also has found that in a family where there is an autistic child there is about a 5 percent possibility of having another one with autism (Speaks, 2011). In various instances, the parents, as well as relatives of a child with autism, may exhibit mild social impairments such as communication or social challenges and repetitive behaviors that are akin to autism.

Moreover, families with an antistatic child also experience various emotional disorders like manic depression. Autism has also been linked to the abnormal gene. This abnormal gene can be one of three or more genes interacting in a certain way to develop the condition (Speaks, 2011). Researchers suggest that faulty genes together with other factors such as lack of oxygen during birth, chemical imbalances and viruses present causes autism. On the other hand, autism is also caused by various environmental factors. As a result, researchers are investigating various environmental triggers that may be causes or are contributing factors to the development of autism particularly to genetically venerable children (Durkin et al., 2015).  Some of the environmental risk factors encompass exposure to pesticides, exposure to organic pollutants as well as exposure to heavy metals such as mercury and led.

Experts provide that exposure to pesticides during pregnancy can increase the risk of developing autism in a child. For instance, according to a study by researchers published in “Environmental Health Perspectives,” exposure to pesticides was found to be a cause of autism by comparing 465 autistic children with about 7000 without autism while noting whether their mothers lived near agricultural areas using pesticides.  Apart from pesticide exposure, there is also a concern on the organic pollutants that build up in the environment with a likelihood of causing autism (Durkin et al., 2015). These pollutants may include substances such as polychlorinated biphenyls that were used in fluorescent lighting and electrical equipment among other products (Speaks, 2011). Although the substance is no longer produced particularly in the United States, it still exists in the environment.

Moreover, sex hormones and medications during pregnancy are also other suspected causes of autisms in children due to the impact of hormones on the intrauterine development of the fetus.  According to pediatric research conducted in 2014 by Rzhetskyto assess the connection between autism and genital malformations using health insurance claims from almost a third of the U.S. population established that just like autism, there was also an increment of genital malformations with “undescended” testicles cases increasing at a rate of 200 percent from 1970 to 1993. The research also established that the number of boys born with penis deformity or hypospadias condition increased at a double rate. Additionally, research by Garlantézec et al. (2009) established that children with these malformations are borne by mothers who have high levels of chemicals such as phthalates found in personal care products, medicines and cleaning products which affect their body hormones.  Therefore based on the research, products or medications that have the ability to influence the hormonal balance of fetus in the uterus should be evaluated and appropriate recommendation made to women that expect to have children in future.

Autism affects the mental, emotional and developmental of a child therefore impairing one’s ability to communicate and interact with others. Although it is possible for Autism to be diagnosed at any age, it is referred to as a “developmental disorder” because its symptoms appear at childhood or within the first two years after birth. The 2014 research further established that most boys born with various genital malformations had a higher likelihood of being diagnosed with autism (Rzhetsky et al., 2014).  Boys with autism were about six times more likely to be born with genital defects compared to boys without autism. On the other hand, this research did not find any connection between genital defects and one’s intellectual disability. The study also observed a similar pattern for the girls despite their connection being a bit weak that for the boys. This may be because autism is usually five times more common in boys than girls (Lin et al., 2013). Furthermore, the study also established that children with autism were more likely to be from families with higher income and living in cities.

Furthermore, mercury in its organic form is also another toxin to a person’s brain and may also be a cause of autism to children. Nevertheless, there is no evidence to show that autistic children have high concentrations of mercury are increased environmental exposure in the United States. However, most parents usually believe that their children developed autism due to child vaccines containing “thimerosal” which is preservative containing mercury. Despite the Institute of Medicine concluding that there is no any causal connection, many autism organizations maintain there is a connection (Weiner et al., 2017). As a result, the debate of autism resulting from vaccines intensified after the federal officials in March 2008 agreed to compensate a family of a nine-year-old girl after she developed symptoms similar to those of autism after she was given the childhood vaccinations.

The federal officials admitted that the vaccines containing “thimerosal” escalated the girl’s pre-existing condition resulting to autism-like symptoms. However, “thimerosal” was later phased out as a component in vaccines following these concerns. Environmental toxins such heavy metals are more commonly encountered in the environment in the current times compared to the past thus exposing more children to autism (Weiner et al., 2017). One of the main reasons that make heavy metals a suspected cause of autism is because some people with autism or with a higher risk of developing autism may be highly sensitive to them than other people.

Moreover, there are also other risk factors associated with autism among children. These risk factors encompass having older parents, or having a sibling with autism and having a very low birth weight. (Weiner et al., 2017). Another risk factor is having particular genetic conditions such as Rett syndrome, Down syndrome and fragile X syndrome which causes a child to be more susceptible to autism.  In regards to the management of autistic children, Autism Spectrum Disorder is used to determine the developmental needs of children through the evaluation of their social skills, ability to effectively interact and level of interests in activities(Valadão et al, 2016). The method used in the evaluation of learning needs among autistic children involve the use of mobile robot in a room that is designed specifically for an interactive session whereby the sessions will be recorded for assessment using the Likert and Goal Attainment scale(Valadão et al, 2016). The study established that children presenting with Autism Spectrum Disorder interacted effectively with the robot thus exhibiting social skills more than the control group. The researchers established that in promoting the quality of life among children with autism, stimulation through the use of playing equipment such as robots and toys is effective.

For an effective treatment, it is essential to conduct early diagnosis particularly in the first two years of life. Early diagnosis helps in the early beginning of behavioral therapy and other treatments for better outcomes. However, during diagnosis, there can be other medical conditions or syndromes like the sensory processing disorder which may show similar symptoms to autism and thus it is important for one to conduct appropriate diagnosis (Durkin et al., 2015). Doctors diagnose Autism by looking at a person’s behavior and development. Autism can reliably be diagnosed at the age of two years and treatment initiated when the condition noticed.

The diagnosis of children is usually a two-stage process. The first stage includes general development screening during well-child checkups and the second stage is an additional evaluation process (Durkin et al., 2015). All children undergo well-child check-ups with a pediatrician or a health care provider of early childhood. However, additional screening is required if a child is deemed to be at a higher risk for developmental problems or autism.  In cases here developmental problems are identified during this screening process, a child is referred to the second stage of evaluation.  The second stage involves a team of doctors and other health professionals with enough experience in autism diagnosis.

The evaluation process by this team assesses the language abilities of a child, cognitive level or thinking skills as well as age-appropriate skills required to accomplish daily activities autonomously such as dressing and eating. However, because autism is a complex disorder that often occurs along with other conditions as well as learning disorders it may require a comprehensive evaluation that includes hearing tests and blood tests (Durkin et al., 2015). An autistic child may show various syndromes including lack of response to name and poor eye contact.  Lack of babbling or pointing when a child is one year old is also another autism syndrome that a child can show (Hazlett et al., 2017).  A child with autism may be unable to utter a single word at his or her 16 months of age or a two-word phrase at two years of age. Loss of language or social skills as well as excessive lining up of objects or toys is also other common signs of autism that can be seen among the affected children during their developmental stages.  This is because; due to impairment in the cognitive development of the child as well as lack of ability to effectively express emotion greatly hinders social interaction in the environment. Additionally, lack of a smile or social responsiveness can also symbolize autism.  Appropriate diagnosis is important for effective treatment of autistic children (Durkin et al., 2015). Therefore, final diagnosis should be carried out by a team of qualified professionals such as a psychologist, speech pathologist, neurologists, and psychiatrist.

In regards to the promotion of the overall wellbeing of children living with autism, the current treatment options that are available are focused on the administration of medication to manage the core symptoms. Psychosocial therapies and medications are among the most popular methods used throughout the healthcare systems to manage significant social communication deficits and restricted interests and behavior seen among children with autism. Psychosocial interventions such as behavioral therapies are used in conjunction with medications such as risperidone and aripiprazole are used(DeFilippis & Wagner, 2016). The use of risperidone and aripiprazole are mainly indicated in severe irritability among autistic children and adolescents. The interventions undertaken are mainly directed towards ensuring that autistic children and adolescents effectively attain a social and emotional balance in the environment through relieving anxiety, stress and irritability.

In conclusion, the debate points out that the causes autism increase if it’s really on the rise as believed by most experts. As highlighted in the opening statement autism is a serious mental developmental disorder that affects a person from childhood impairing one’s ability to communicate and interact effectively and undertaken normal developmental milestones in the environment. Although it is possible for Autism to be diagnosed at any age, it is referred to as a “developmental disorder” because its symptoms appear at childhood or within the first two years after birth.Autistic conditions among children are mainly characterized by deficits in the recognition of emotions as well as the expression of emotions through facial expression, vocal intonation and body movements. Autism is a serious developmental disorder that can highly impact on a child’s adult life. Although the rates of this condition have continued to increase, it important for all stakeholders to prioritize the necessity of diagnosing the condition and providing treatment to all affected children. Increased awareness, early diagnosis as well as proper treatment are the main ways that can be used to control the prevalence of this condition.

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