



Original Article

## The Rise of Autism in Kenya: Implications to the stakeholders in Education – Literature Review

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*Autism Spectrum Disorder (ASD), Diagnostic Criteria, Challenges, Accommodations, Intervention Measures.*

This article explored why autism is on the rise globally and the appropriate measures to take to support them. The article found out that the rise in autism may have been contributed due to improved access to healthcare, the society is enlightened and some expanded diagnostic criteria. The article also found that globally there are about 1 in 160 children with ASD while in Kenya it affects approximately four per cent of the population, while the prevalence of higher autism (H-AUT) was found in 0.63% of adolescents and young adults. The article also found out that learners with ASD in Africa are socially isolated and are never neither diagnosed nor treated and in many parts of the continent, developmental disabilities carry a societal stigma and often are attributed to a curse. The article also found out that learners with autism encounter many challenges in their education such lack of a syllabus, educators who were untrained, negative perspective from peers, inadequate learning materials, improper policies and lawful framework for special needs, and high forecast of caregivers, the time assigned per class and that learners with autism are tremendously disoriented by unorganised surroundings. The article further found that the risk factor of ASD is multi systemic including both hereditary and non-hereditary factors contributing. The article further found that there are education measures and treatment methods for learners with autism and preventive measures for them. The article further found that there are several adequate measures for employees with ASD that can be incorporated by their employers to ensure they work effectively. The article concluded by identifying implications to the stakeholders to the rise of autism including an increased appeal for special education services, modifications of the environment, parental involvement and increased resources, advocacy, training of teachers and collaboration among others.

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## INTRODUCTION

The purpose of this article is to explore why autism is on the rise globally and in particular Kenya and the preventive measures to support children with Autism. In this article, autism and autism spectrum disorder mean the same thing. This article shall explore the aetiology, epidemiology, pathophysiology, treatment, and prevention of Autism. The article will use the latest evidence-based strategies to expound on the challenges autism poses on parents, education and adult life and the various support services and accommodations that can be provided to assist parents and learners who are autistic. Recently, there has been increased cases of autism globally which may have been contributed by improved access to healthcare, the society is enlightened and some expanded diagnostic criteria. Autism, or autistic spectrum disorder (ASD), is a developmental disorder that affects the ability of a person to interact socially and they struggle with expressing their emotions. Before 2013, doctors defined the four types of autism as: autism, syndrome, childhood disintegrative disorder and pervasive developmental disorder-not otherwise specified. Nonetheless, the American Psychiatric Association revised their *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* in 2013, which did not include these four isotypes of autism. They now all fall under the one umbrella term of ASD, but with three different degrees of severity. The first degree of Autism is the mildest or less severe form of autism. They have difficulties

communicating appropriately with others for instance; they may not say the right thing at the appropriate time or be able to read social cues and body language. They have problems in making friends. Some of these children have a high intelligent quotient. Children in the second degree of ASD requires considerable amount of support and have more problems with verbal, nonverbal and social communication. They are prone to very narrow interests and engage in repetitive behaviours that can make it hard for them to act in some specific circumstances. A child with ASD in the third degree is the most severe form of autism and will therefore require very significant support. A person with ASD level 3 will have a very limited ability to speak clearly and will rarely start interactions with other people. When they do, they will do so maladroit. Someone with level 3 will also respond only to very direct social approaches from other people.

The three levels of ASD help doctors stipulate specific therapies for the unique needs of their clients. These therapies can help the person with ASD make the most of their strengths and improve their social, language, and behaviour skills. These degrees or levels indicate the extent to which autism impacts an individual's ability to communicate and take care of themselves. The levels describe the disorder's severity and how much support a person needs. Assigning people to one of the three degrees of autism can be useful for understanding what types of services or therapies and supports would serve them best., however it may not anticipate or account for unique details in

their character and behaviour, which means the support and services they receive will need to be highly individualized. The three degrees are not entirely inclusive of the symptoms and needs of all people with autism. The DSM-5 offers very little specifications regarding the types and amount of help that individuals need or situations when support is needed.

ASD is brought about by environmental and hereditary components. Globally there are about 1 in 160 children with ASD while in Kenya it affects approximately four per cent of the population. According to study done in Kenya, the prevalence of higher autism (H-AUT) was found in 0.63% of adolescents and young adults. The youth who had been chosen from the community had higher H-AUT rates (0.98%) than those who were learners (0.58%), suggesting that H-AUT is a barrier to assessing higher education in the society. DSM-5 explains about three levels of autism but, many individuals with autism are still described as either being “low-functioning” or “high-functioning even if these terms do not exist as formal medical diagnoses. Learners with high-functioning autism are usually diagnosed at level one as they generally display incredibly mild symptoms and usually have a high IQ.

Numerous learners with ASD in Africa are socially isolated and are never diagnosed nor treated. In many parts of the continent, developmental disabilities carry a societal stigma and often are attributed to a curse. In Kenya, neither diagnostic facilities for autism related disorders nor do any intervention guidelines exist. Various factors have been recognized that contribute to the challenges faced by people with ASD including; unawareness, limited research, cultural factors, lack of management criteria, lack of government support and the expensive cost of treatment, social stigma, isolation, and disintegrated families.

There are various support measures that can be used for learners with autism by use of concrete and

visual materials, using a consistent predictable schedule, minimising sensorial difficulties, retaining a calm interactive tone and use of teamwork to assist in transitioning. There are various treatment methods available for autism which include: behavioural therapy, cognitive behaviour therapy, initial intervention, educational intervention measures, joint attention therapy, pharmacological treatment, diet therapy, occupational therapy, caregiver-mediated therapy, physical therapy, social skills training and speech-language therapy among others.

### PREVALENCE OF AUTISM

According to Kumar (2021), Autism Spectrum Disorder (ASD) is a range of impairments that inhibits societal skills, verbal expression, motion, studying, intelligence, temperament, and habits. Estimates of autism are rising drastically due to thriving enlightenment and early diagnosing, improved attainable to healthcare and extensive diagnostic guidelines. Brasic (2021), states that ASD covers various disabilities that are divided into two vast groups including hereditary disabilities with characteristics of ASD like fragile X syndrome and tuberous sclerosis. The second category is Idiopathic with undetermined cause. Idiopathic types includes Asperger syndrome and Pervasive Developmental Disorder - Not Otherwise Specified, and Childhood Disintegrative Disorder and some hereditary impairments like Rett syndrome, which can show autistic characteristics There are habits and developmental characteristics of autism like developmental deterioration, inability to use a finger to point at item of interest, bizarre response to the surroundings stimulation, bizarre societal interconnection, inability to smile on meeting accustomed people, atypical reactions to pain and physical injury, speech impediment, lack of pretend play and standardized and repeated habits.

According to the World Health Organisation (WHO) (2021), the estimated cases worldwide of ASD are about one in every 100 children but the

number in developing nations is not well known. According to the Autism Society of Kenya (ASK) (2007, as cited in, Wanjohi, 2010), the individuals with autism were estimated to be about 4% of all the inhabitants. This society was established in September 2003 by caregivers with kids with ASD so as to support other caregivers and their kid's requirements. It assists them by offering screening services, provides awareness on ASD and advisory services. They also started a special unit in City Primary in the year 2003 that caters for the learning needs of individuals with ASD.

According to a prevalence study done in Kenya on AUT by Mamah et al. (2022), H-AUT was found in 0.63% of adolescents and young adults. The Autistic features were associated with lesser educational achievements, lesser socioeconomic category as well as psychosis, mood symptoms, and stress. There are minimal studies done in Africa on autism thus it is important to create awareness and inform people on autism to boost health seeking habits and mental health laws.

### Causes of Autism

According to Sauer et al. (2021), the risk factors of ASD are multi systemic including both hereditary and non-hereditary. These factors may include a relative with ASD, extremely young or elderly parents, expectant women who use some medicines or toxins like ethanol or antiepileptic drugs, expectant woman who has diabetes or is overweight, unmanaged phenylketonuria and rubella and also prematurity. According to a study carried out in the Kenyan coast by Gona et al (2015), they concluded that even with different traditional ways of life individuals have the same perspectives on the known aetiologies and management of ASD. On the basis of this finding, specialists can be able to remediate comprehensively for individuals with ASD.

Deolinda (2021) advocates that the pathophysiology of autism is based on a variety of theories. Defect of

the neurological activities is a perspective that aims to explain the physiology of the causes of autism. The brain's neurological activity is evaluated using its competency to create normal neurological circuits which is reflected in an activity called synaptic pruning whereby if there are excessive synaptic connections the brain reduces their number. Research on neurological quantity indicates that persons with autism have a greater amount of neurons that make synaptic pruning more difficult. Neuronal fine-tuning assists in helping one side of the brain to perform a particular function hence ensuring proper speech activity. In regard to the broken mirror ideology of autism whereby mirror neurons help in comprehending activity and copying of other people we get to understand the challenges with societal interrelations and intelligence that these persons with autism have. In conjunction with the ideology of the mind which helps one be able to comprehend people, their thinking perspective, and their emotions. It has been proven that a few learners with autism have challenges with copying habits and a few features in the ideology of the mind. People with autism may have an imbalance of excitatory and inhibitory neurotransmitters at the synapses thus the reason why they have a challenge with their intelligence and sensorial function.

Deolinda (2021) indicates that hereditary and epigenetic aspects in autism also play an important role in understanding the cause of autism. Epigenetics explains how the surroundings and our mannerisms disrupt how the genes function. Some epigenetic changes are inborn. Epigenetic transformations can be modified and do not alter the DNA arrangement but can affect how the body interprets the DNA arrangement thus can affect the formation of some amino acids needed in cellular activities. Gene morphogenesis of the MECP2 gene found in Rett's syndrome alters brain growth mostly in girls whereby it leads to drastic decline in coordination, decline in language and decline in structured use of upper limbs. The major

characteristic of this disease is continuous upper limbs locomotion. Learning the hereditary alterations in Rett's syndrome can help one understand the autism associated characteristics. A defect in the functioning of the thyroid gland can lead to ASD characteristics since its excretion controls development of the embryo in the first three months of gestation with regards to placental growth.

According to Konstantinos et al. (2021), autism is caused by various multisystem components including hereditary and environmental features. The cause of communication problems in individuals with autism is explained with regards to the societal motivational ideology whereby the communication difficulties occur since toddlers are unable to concentrate and incorporate the societal stimulation thus, they acquire abnormal alternative responses and also associated disabilities like speech difficulties.

### **ASSESSMENT OF LEARNERS WITH AUTISM**

According to Centre of Disease Control (CDC) (2022), doctors use different conventional and non-conventional ASD testing instruments. There are several testing instruments like Modified Checklist for Autism in Toddlers (M-CHAT) used for infants between 16 and 30 months old, The Ages and Stages Questionnaire (ASQ) is a growth testing that monitors growth difficulties at a particular age, Screening Tool for Autism in Toddlers and Young Children (STAT) is a testing instrument that contains twelve pursuits that measure playing, conversing and imitating, Parents' Evaluation of Developmental Status (PEDS) is a caregiver questionnaire made to recognise delays in movement, speech and self-assistance.

According to Autism Tasmania Incorporation (2022), there are several testing and evaluation instruments that may be utilised in the evaluation procedure to confirm that an individual has ASD

which consists of the Child Autism Rating Scale (CARS), Autism Diagnostic Observation Schedule (ADOS), Autism Diagnostic Interview-revised (ADI-R), Autism Detection in Early Childhood (ADEC) and Social Communication Questionnaire. Medical specialists also use cognition tests to acquire data on the individual's growth in order to confirm that a person has autism there are detection methods which are divided into primary and secondary detection.

### **Prevention Measures**

Prevention measures are categorized into three which entail; unchangeable due to some issues for instance elderly dads, elderly or very young mums and huge age gap between the father and mother as it leads to a child having ASD.

According to Konstantinos et al (2021), the second criterion are prevention objectives focused on the whole society which include correcting mother's hypothyroidism during gestation period as it predisposes the unborn child to ASD, avoid atmospheric and chemical contamination which can lead to endocrine dysfunction during pregnancy predisposing foetus to ASD, avoid smoking during pregnancy because it predisposes foetus to behavioural problems. The last prevention criterion is directly related to causation of ASD for instance genetic counselling in case of a family with an individual with ASD, prevention of rubella, influenza and continuous fever acquired during gestation, advice parents to gap their births to more than one year so as to prevent maternal nutritional deficiency and also ensure that during gestation mother's take their supplements to deter an increased number of ASD, behavioural and language difficulties. Replace epileptic drugs like valproate with lamotrigine during gestation period and also ensure all children are vaccinated.

## Management and Modifications in the Work Place

According to Kamau (2017), in order to elaborate both the higher functioning and lower functioning autism it is vital to understand the three levels of ASD. Persons with level one of ASD have the mildest of symptoms which do not significantly affect their daily lives. Individuals with level two autism need some support in learning social skills and speech therapy. Individuals with level three of ASD have profound features and usually need a lot of support that may involve 24-hour aide or rigorous therapy. Learners with H-AUT are obsessed to ensuring order and a set schedule is followed. They usually feel they need to do recurrent and structured activities that seems unorthodox to others.

According to the CDC (2022), the available modes of managing ASD intend to minimise their characteristic features that affect their daily activities and the value of living. Since ASD poses particular difficulties in every individual, management modes are directed depending on their various requirements by using a multidisciplinary team of specialists. Management can be done in learning, medical, communal, or house setups as a joint effort from all specialists and their care givers. Management methods have been divided into several classes including behavioural, developmental, educational, social relational, pharmacological, psychological, complementary, and alternative.

CDC (2022) states that behavioural measures deal on the modification of habits by comprehending what occurs prior and subsequently following the habits. These measures produce good results in managing signs of autism and are broadly utilised by teachers and medical specialists. For instance, Applied Behavioural Analysis (ABA) is used for the management of inappropriate habits so as to promote adequate habits and competencies. The Improvement that is achieved by these individuals is followed up and gauged. There are two ABA

educating methods including Discrete Trial Training (DTT) that entails bit by bit directions to educate an adequate habit or reaction. Appropriate responses and habits are appreciated while inappropriate responses and habits are disregarded and Pivotal Response Training (PRT) that occurs in an innate setup not in the hospital setup with the aim of assisting the individual to boost on some vital competencies so as to enable individuals with autism acquire more competencies. For instance, one vital competence is the ability to start conversations with other individuals.

According to CDC (2022), developmental measures deal with boosting particular developmental competencies like speech or physical competencies among others. Developmental and behaviour measures are used together. Individuals with ASD are usually managed using speech and language therapy so as to assist them comprehend and utilize communication abilities as they usually express themselves orally. Some individuals with ASD express themselves using signs, visual cues, or computerized equipment. According to ASF (2022), speech therapy is also a vital developmental method utilised for individuals with ASD to boost their language abilities thus ensuring they are able to communicate about what they may require. Language therapists must cooperate together with tutors, caregivers, assistant staff, and age mates of the individual with ASD so as to boost augmentative communication in innate setups.

CDC (2022) states that occupational therapy educates these individuals on some activities of daily living so as to enable them be self-reliant like wearing clothes, showering, eating, and associating with others. This therapy also incorporates sensory integration therapy that assists in boosting sensory impulses which can be inhibitory or overbearing. Physical therapy (PT) is another component incorporated into occupational therapy as part of the initial intervention schedule and it can boost somatic competencies like gross and fine motor abilities. It functions to educate and boost abilities

like movement, posturing and support. A developmental method named Early Start Denver Model (ESDM) created with regard to the foundations of ABA is utilized in those aged one and two years whereby caregivers and specialists utilize games and social interactions in innate setups to boost their speech, interaction, and educational skills.

CDC (2022), also advocates for educational measures as a way of managing individuals with ASD that are offered in the class setup. An example of an educational method is known as Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) which is founded on the fact that individuals' who are autistic improve with routines and visual teaching. It gives educators means of changing the class setup so as to improve on learning objectives among others. For instance, daily schedules can be noted down and displayed clearly. Verbalized commands can be utilised together with visual commands or practical demonstrations. Social-relational management methods deal on boosting societal abilities and forming sentimental relationships in partnership with caregivers or facilitators. There are several components utilized in this management method like societal stories that provide easy explanations on what is required in a communal setup. Societal skills groups give chances to individuals with ASD to perform communal abilities in an orderly surroundings. Several models have been incorporated in the social relational management method including Relationship Development Intervention (RDI) model that entails exercises which promote inspiration, inquisitiveness, and skills to take part in mutual societal connections. Another model that is utilised is the Developmental, Individual Differences and Relationship based model which urges caregivers and specialists to follow up with the passions of the participants so as to broaden their chances for correspondence.

According to ASF (2022), medicines usually assist in reducing some of the typical features of individuals with ASD like moodiness, destructiveness and self-harming habits including hitting their heads on objects. They can also treat other health issues like convulsions, sleeping difficulties and digestive issues. Risperidone is used to manage moodiness, intended self-harm and agitation. Aripiprazole is used to manage moodiness in kids and the youth. Cognitive Behaviour therapy (CBT) deals with understanding the relations among thinking, emotions, and habits. Specialists work with the person with autism in order to find out their objectives and then altering how an individual ponders and responds in a given circumstance. The other methods that are used to manage individuals with ASD include complementary and alternative measures which are utilised to substitute customary methods. For instance, exclusive foods, homeopathic substitutes, chiropractic attention, animal therapeutics, artistry therapeutics, carefulness, or relaxation therapeutics. People with ASD and their relatives should consult a physician so as to start this method of treatment.

According to Autism Hampshire (2021), supervisors can make several modifications at the place of work so as to accommodate individuals with ASD. This can help employees with ASD who do not know of their condition and those who have not been officially diagnosed or those that are not courageous enough to ask for modifications. The various changes that can be installed in the place of work to cater for individuals with ASD like particular and systematic regulations and intentions, a calming area at work, decreasing sensorial interruption at work, knowledge on ASD should be provided to every employee so as enable them know their strengths and abilities. Guidelines and laws should be in writing and should be conveyed openly and correctly, aids to help individual chore arrangement, ensure working routines are followed and including employees with ASD in the

development of aggravation and victimization laws to reduce aggravation and victimization.

According to Autism Hampshire (2021), there are several adequate measures for employees with ASD that can be incorporated so as to ensure they work effectively. They consist of salaried leave when required, rigid hours instead of adjustable schedules, decreasing particular sensorial stimulation at the place of work, alteration of employment locality, more resting durations, offering a role model, personal assistance when routines are abruptly modified, changes on how evaluations are done, precise procedures and labour rosters, individual working area and delegating some tasks to other employees with their consent.

According to Insuperity (2020), it is vital to concentrate on an individual's competencies not just their impairments. If the employee requires any adaptations one should talk to them so they could express themselves on areas that they need assistance. In this way, it may avoid cases of stigma. When one is employing and supervising workers with impairments, a properly described work definition can assist both the supervisors and workers know the responsibilities of work and its principles. One must deliberate with their hiring department, take part in the interaction procedure, and also assess the importance of making modifications to cater for persons with any type of impairment. One can involve a specialist-employer corporation to assist in manoeuvring the employer-employee relations so as to follow the process required so as to be obliging while improving the organization's customs and information foundation.

### **Challenges Facing Learners with Autism**

According Rattaz et al. (2018), the word challenging behaviours includes a universal explanation that includes various habits which are not among the main ASD features but are comorbid including self-harm or over activity. Self-harm is associated with intellectual standards and also how

severe the symptoms are and is commonly seen in individuals with ASD who are also mentally challenged. Various habits may also be associated with the main ASD signs like habituation, stereotyped habits, and societal isolation.

According to the study by Mwendo (2011) on the challenges facing educators of inclusive education at city primary school in Nairobi, it was found that there was no syllabus in the special unit at city primary school, educators were untrained, there was negative perspective from peers, inadequate learning materials and high forecast of caregivers and also the time assigned per class.

According to a study by Ashghedom (2015), with regards to care related challenges faced by learners with autism in Jacaranda special children's centre in Nairobi County, it was found that there were limited educating resources for students with autism and improper policies and lawful frameworks for special needs. It concluded that that learners with autism are tremendously disoriented by unorganised surroundings.

According to Edelson & Natowitz (2021), individuals with ASD display demanding habits that their caregivers, tutors and other caretakers find unmanageable. These habits tend to affect various areas of their everyday living and also affect the safety of their caregivers. Persons with ASD find their surroundings difficult to cope with and also find other individuals complicated. Combativeness, hostility, and self-harm are usually experienced among youngsters with ASD whereby approximately 59% of 2300 cases in the Autism Research institute portal display some or all these habits. According to Rattaz et al (2018), due to the destructive habits persons with ASD display, focusing on boosting their intellectual and speech skills early while also relieving the intensity of their signs can improve their quality of life.

According to Rudy (2020), learning institutions may not be conducive environment for learners with



ASD hence causing issues while they are schooling and later. Most of these learners may have outstanding cognition and some may have associated learning disorders. These learners invest most of their time on understanding how to adjust to their surroundings which is usually not in coordination with their skills and difficulties. They later leave their surroundings once they are done with that developmental area of their life to a different scenario.

According to Shore (2022), individuals with ASD undergo ridiculing from others and in overpopulated classes, tutors usually strain to modify their educating methods and wants. Adolescents with ASD may be unable to continue attending school after finishing secondary education except if they have extraordinary competencies or they are inspired. As they become grownup, they may face difficulties finding and maintaining employment thus may depend on their relatives for shelter. Since not all persons with ASD have symptoms, health specialists should examine them critically for proper diagnosis. Relatives and caretakers can experience disappointments and exhaustion once they begin to learn about ASD and realise therapeutics and usually take the part of playing games.

According to University of Washington(UW) (2021), due to the difficulties that are associated with ASD various modifications should be made so as to assist them including; well laid and arranged schedules, alerting and arranging when modifications are to be done, arranging and implementing dissemination methods and societal schedules, earpieces or noise cancelling headphones in school corridors, establish a silent place that a learner can go to, pictorial routines and illustrative planners, pictorial or jolted rules and utilising computer packages like word documents. According to Matson et al. (2011), the demanding habits portrayed by individuals with ASD are related to their surroundings and habit remediation

must be done. This remediation's include applied behaviour analysis in conjunction with medications.

According to the Autism Association of South Australia (2022), individuals with ASD require assistance in various levels of their development in life so as to be able to boost their potential and enable them achieve their life goals. Therefore, they need comfortable surroundings to enable them have a platform where they can be educated from their pitfalls. When these individuals are young, initial remediation measures are vital as studies have shown that in comparison to their other peers, they will need four times extra education and reinforcement during their schooling. Specialists like language pathologists, occupation therapists and education consultants provide the much-needed reinforcement and advice for these individuals. Away from the class setup, relaxation and after-school exercises give these persons a chance to demonstrate interactive abilities, bodily abilities and improve morale that causes elevation in self-esteem.

According to Autism speaks incorporation (2021), about 50,000 teenagers with ASD become grownups per annum hence it is vital that adequate supports and assistance in order for them to overcome any difficulties they may come across. These grownups need a group of individuals to boost their life and give mental reinforcement. Each person requires particular support that ranges from housing, employment, and communal cooperation. Communal support for these individuals includes helping professions, companies, and locations to develop potential, inclusiveness, comprehension, and enlightenment of ASD to enable these individuals with ASD, their relatives and advocates be accommodated and be encouraged to take part in the societal development.

According to the University of Rochester Medical Centre (URMC) (2022), ASD caregivers require proper reinforcing method so as to assist them manage particular features of the disability. It also

assists them understand how to cope with the emotions associated with the difficulties of bringing up autistic children while being able to cater for the other siblings. Finding advocacy groups for siblings who can offer them a conducive space for them to express their emotions and worries.

According to Raising Children Network (Australia) (2021), the main method for creating an advocacy group to assist relatives and acquaintances is by teaching them about individuals with ASD. They should be enlightened on how ASD affects their children's manners, how they can connect with them by educating them on the way to express themselves to these children and also by arranging gatherings with relatives and pursuits that can cater for their children's needs and competencies which can help them understand the positive traits they have. A community assistant who has mastered in ASD can help and reinforce caregivers, children and adults with ASD as they have been educated in providing solutions to challenging issues including mentoring, observing their wellness and familial backing.

According to the National Autistic Society (2020), most individuals with ASD have several unique abilities and outstanding competencies in terms of increased focus, dependability, honesty, determination, and ability to retain precise detailed information. Hiring an individual with ASD indicates a corporation's dedication to ensuring fairness and diversification and indicates an optimistic approach towards persons with impairments. Persons with ASD are usually underprivileged with regards to finding and maintaining employment since other individuals do not comprehend them.

## IMPLICATIONS FOR STAKEHOLDERS IN EDUCATION

Increased appeal for special education services: If the prevalence of ASD is viewed to be increasing, there may be an increased appeal for special education services, such as individualized education

programs (IEPs), to help students with ASD in the classroom. This may place burdens on school resources and require additional finances to meet the needs of these students.

Modifications of the classroom: If the number of students with ASD in a classroom increases, it may be necessary to make adaptations to the classroom environment or teaching approaches to help these students. This may require more training or resources for teachers.

Parental involvement: Parents of children with ASD may need to be more involved in their children's education to ensure that their diverse needs are being met. This may involve regular dissemination with teachers and school staff, as well as recommending for appropriate modifications and support for their kids.

Exponent: Stakeholders in education, such as teachers, school administrators, and policy makers, may need to recommend for increased resources and advocacy for students with ASD, including additional finances for special education services and training for teachers.

Partnership: To effectively support students with ASD, stakeholders in education may need to work together with other professionals, such as doctors, therapists, and social workers, to ensure these students receive the extensive support they may require (American Academy of Paediatrics, 2011).

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