

Assessing the Impact of Autism Spectrum Disorder on School Going Children in Nairobi County: A Review of Literature

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Abstract

Autism spectrum disorder has become a global challenge, a pervasive condition with a complex etiology impacting the lives of at least one in a hundred children across the globe. While it continues to wreck many families, for various factors the disorder is yet to be contained in Kenya, nor even Africa. In Kenya education may form part of the remedies in dealing with the affected through establishment of special schools that focus on the children with autism. Nonetheless, as the government of Kenya continues to provide a chance for children and adolescents with autism spectrum disorder (ASD) through creating a favorable school setting that may entail special classes and schools as well as mainstream schools, family functioning and their quality of life is not guaranteed. In this paper, the author conducted a review of literature on the impact of ASD on children and adolescents of school going age in schools in Nairobi County, Kenya.

Keywords: Autism Spectrum Disorder, School, Children, Adolescents, Mainstream, Special needs.

INTRODUCTION

The Kenya's Persons with Disabilities Act of 2003 describes disability as a physical, sensual, mental or other deficiency, which include any hearing, optical, learning or physical inability, which negatively impacts on monetary, social or environmental involvement. However, the government has provided institutions to cater for the so-called major disabilities such as hearing, the blind and physically handicapped with very little being done for children with Autism Spectrum Disorder (ASD) (MoE, 2009). Other disabilities identified in the act include epilepsy, cerebral palsy, Down Syndrome, behavioral and emotional disorders, speech and language disorders, learning disability and albinism among others. However, nationally, the term 'mental disability' has been shunned because it causes stigma to the affected children as well as their parents. Despite the efforts by family to embrace these children, the historic discriminatory mentality still entrenched at grass roots negatively impacts on them evidenced by marginalization.

There has been a steady rise in the number of children and adolescents who suffer from autism in Kenya (Chabeda-Barthe *et al.*, 2019). According to a survey conducted on Children with Disabilities and Special Needs in Education 2018 by the Kenya Institute of Special Education (KISE, 2018), out of a sum total of 7609 children who were reached across the country, 865 depicted various disabilities, an indication of an 11.4% prevalence rate. Among the identified individuals with disabilities, boys accounted for 51.2% with girls being represented by 48.8%. In addition, 2.5% depicted intellectual

disabilities, 3.0 % physical disability and 3.1% of whom were visually impaired (Chabeda-Barthe et al., 2019).

In developed nations such as the USA, the management of autism and the co-morbid disorders through different approaches of intervention such as Applied Behavior Analysis (ABA), Cognitive Behavior Therapy (CBT), Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) and Learning Experiences and Alternate Program for Preschoolers and their Parents (LEAP) among others, has brought positive results (US CDC, 2015). In this respect, a multimodal intervention that pools Applied Behavior Analysis (ABA) and Cognitive Behavior Therapy (CBT) was established by scholars as a non-medical (physiotherapy) way of managing anxiety and social skills deficits for individuals with ASD (Attwood, 2007; White, 2013). These non-pharmacology interventions that target behavior are crucial in the treatment of anxiety and deficits in social skills in children with ASD in schools. Nevertheless, ASD has been dominated by medical conceptualizations in Sub-Saharan Africa (Gona, 2016). Lack of structured and inexpensive behavioral treatment amenities for children with ASD and their caregivers creates a big gap in the intervention of anxiety and social skills deficits in ASD (Maulik & Darmstadt, 2007) and how this impacts children with autism. This study therefore intended to fill the existing gap and add to the body of knowledge.

According to Gona (2016) and Mwendo (2011), in Kenya ASD is seen as a psychiatric condition, a curse or a result of bewitchment. As a result, children with ASD are often hidden away from the public eye, locked in houses, or bound with chains for life (Riccio, 2011). Further, many parents have kept away children with ASD from social gatherings because of stigma that comes with such invisible disorders (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). This leaves the pain and the burden of taking care of such children with disability heavily on the parents (Green, 2007; Weiss & Lunsky, 2013). According to Cohen (2012), many special schools in Kisumu did not accept children with ASD until they were well into vital stages of development.

Cohen (2012) observed that many children with ASD did not receive intervention services until at a very late age. Studies have confirmed that late diagnosis hinder early and successful intervention (Minahan & Rappaport, 2013). Besides, it was established that the Educational Assessment and Resource Center (EARC) lacked personnel and funding to provide adequate services for young children with ASD (Cohen, 2012).

Most parents lack adequate knowledge of ASD or how to support their children. This has restrained success of the intervention services whereby close follow-up after the intervention is lacking. Arising from the seeming misunderstanding of such disabilities like ASD, there has been an increasing inaccessibility of diagnostic and treatment services for anxiety and social skills for ASD (Maulik & Darmstadt, 2007; Riccio, 2011).

Theories on modeling behavior among children with autism

This assessment is guided by the cognitive behavioral theory that shows the relationship between feelings and the mind that could result in people's behavior. Social learning and applied behavioral analysis have shown that behavior has a purpose. Behavior is stimulated using positive and negative reinforcement. The restructuring of the irrational thoughts is done through cognitive behavior theory and social learning theory (Dobson & Dobson, 2009). The concept of self-efficacy in Bandura's theory echoes the certainty of special needs in children with ASD learners' behavior (Bandura, 1997). Additionally, self-efficacy inculcates in children with ASD

the abilities and responsibilities to try any difficult assignment before they give up. Learners with ASD experience special needs that result in little academic achievements as well as inability to tackle complex tasks which is also consistent in normal educational setting of children with no disabilities (Bandura, 1997). Learners with special needs have the ability to study by continued responsiveness, modeling, mental association, and motor practice (Bandura, 2002). The learner is able to overcome the challenge of slow mental processing while the learned efficacies take over.

Cognitive Behavioral Theory (CBT)

Cognitive theory was developed by an American psychiatrist, Aaron T. Beck in 1960. Beck's intention was to prove the genesis of unconscious motivations. He therefore came up with a theory that highlighted the purpose, inaccurate beliefs played in thinking that contributed to unconscious self-examination (Freeman, Pretzer, Fleming, & Simon, 2004). Beck was not pleased with his initial training in psychodynamics, which he highly suspected did not resolve clinical and research issues. He adopted the theoretical concepts of schema (Beck, 1976). Beck's theory viewed depression and anxiety in cognitive terms (Burns, 2012).

Cognitive Behavioral Theory is an approach derived from Beck's model which is largely described as a highly organized, time-limited, and didactic methodology which aims at increasing mental and behavioral skills in resolving problems (Dobson & Dobson, 2009; Friedburg & McClure, 2002; Reaven, 2011). The principles of CBT mainly aim to identify and modify destructive judgments, principles, attitudes and refining social knowledge. CBT approach to solving problems adopts a person's belief-system and thoughts on a condition that can generate his or her social reaction (Gresham & Elliot, 2008). In the instance of emotive-behavioral phase of CBT, children with ASD are stimulated to deliberately attune their emotive state. This further changes how they perceive their social circumstances which facilitate a social response, thus increasing adaptive functioning (Craske, 2010; Wood, 2009).

Based on ABA interventions for persons with ASD, Craske (2010) categorized the schemes and procedures used in CBT as follows:

Cognitive-based approaches counter maladaptive thoughts and replace them with new positive and constructive thoughts and principles. As developed by Rohsenow and Pinkston-Camp (2016), modeling and mental practices of proper schemes are advantageous methods of teaching in support of the children to identify the cause of the specific thoughts, inner verbalizations such as self-control and self-talk. Restructuring of thoughts or ways of thinking is fundamental. This being the core principle in CBT, the use of concepts, explanation, and questions are general approaches in CBT to lead or conduce individuals to come up with new ideas in society and help children to acquire knowledge of their negative thoughts.

Abilities and reinforced approaches are aimed at developing the children's problem-solving ability and have coping skills. One of the skills to solve problems is providing the children with schemes to identify and analyze different societal circumstances or problems. In addition, to recognize the most suitable plans to solve a problem thoughtfully, one would contemplate the possible outcomes of the action, and assess the consequential response. Further, to assist these children acquire self-efficacy in regulation of emotions and be able to manage impending stressors, introduction of skills like positive self-talk, relaxation exercises and monitoring of their emotions can make them cope with emotions. Bandura (1977) stated that, teaching directly and behavioral practices such as role playing can help the children acquire the skill and rehearse it in an environment that is safe. Thus, positive behavior is reinforced by

providing immediate feedback. At this point, affective training is now incorporated. This is mainly training the children in identifying emotions both in themselves and in other people and helping them to develop suitable emotional responses.

Finally, Craske (2010) explained that is an exposure grounded approach that provides a methodical, precise and repetitive experience to more challenging tasks or stimuli. The child with ASD will not anymore see the situation or stimuli in a negative manner or try to avoid it. The central goal of CBT-based treatments of social skills is acquiring and performing three kinds of skills, with emphasis on practicing the learnt skills, by giving them homework to encourage desirable change in behavior. The practicability and organization strategy of CBT makes it an appropriate treatment for individuals with ASD. This benefits them by addressing cognitive biases, social-behavioral performance and lack of affective knowledge.

Bandura's Theory of Self - Efficacy

This theory was developed by Albert Bandura (1977) and suggests that psychological procedures and change of behavior functions by the modification of one's personal efficacy sense. Social learning theory (SLT), in collaboration with present investigations has put emphasis on the important role played by imitation in the development of social communication and empathy (Avikainen, Wohlschlager, Liuhanen, Hanninen & Hari, 2003; Bandura, 1977; Iacoboni & Dapretto, 2006). For example, a child living with ASD who effectively overcomes the task of entering into a group by saying "Hello" will adhere to and persist on this procedure that worked for him, unlike the one for whom the same procedure did not work. People route, assess and assimilate varied bases of information about their ability, and they control their best behavior and effort. Exposing the children with ASD to different skills on social behavior would allow them to experience the possible ways to integrate their behavior. According to Bandura (1977), every individual has a system that holds their mental processes and how these processes make them feel or affect constructions. The structures include the ability to symbolize and learn from others. This offers a substitute strategy and engages in self-reflection.

The connection of the theoretical framework in the study comes in on the differences in the skills employed to complement each other and allow diversity in skill application. For example, in modeling, the children learn by seeing others effectively accomplish an action. According to Bandura (1977), learning is extremely difficult if individuals relied on the results of their activities to help them, advise on what to do. Children with ASD can learn what to do from the example, at least in approximate form, before performing any behavior. As a result, and with frequent practice, they could be spared needless errors. The experiences of mastery grow with self-efficacy; subsequently, self-beliefs are strengthened by the capability achieved. For instance, if a child with ASD is consistently rewarded, he or she is encouraged to endeavor to work for impending achievements. When individuals attain early achievements, there is a tendency to expect quick results and they quickly lose hope when they fail to achieve quick results. Complications in a task become a useful drive to demonstrate that victory often involves determination (Tucker & McCarthy, 2001). On the other hand, failure can serve as an encouragement for perseverance and motivation to keep trying until one is successful. Research shows that after children with ASD become certain of their abilities through repetitive achievements, they easily cope with hindrances and disappointments with no negative affect (Bandura & Wood, 1989).

Modeling shapes effectiveness by observing and comparing societal tasks which promote effective learning strategies to manage difficult circumstances. When children

with ASD see other people successful as a result of continued effort, it increases their belief in their abilities. That is why Multimodal Anxiety and Social Skills Intervention (MASSI) treatment has a group therapy that provides this platform. The expectation of self-efficacy is alleged to have great influence on behavior. Results of self-effectiveness are aimed at conclusions of one's abilities with the acquired skills (Bandura, 1977). In this connection, Bandura's concept of self-efficacy denotes precise intuitions which are understood and well-defined relative to precise behaviors in precise circumstances or settings. This provides the grounds to aim at specific behaviors in children with ASD.

Applied Behavior Analysis (ABA)

ABA therapy has its basis in the teachings of the behaviorist Skinner (1953). It is defined as a method whose aim is to change behaviors that use measures founded on scientific proven values of education (Kearney, 2008). Skinner's research on conditioning is applied to clients by identifying a behavior problem, analyzing the causes and outcomes of that behavior, and attempting to modify the behavior with conditioned responses and positive reinforcement. The ultimate goal and focus of this behavior-based model is the extinction of the undesired behaviors, where extinction in this case denotes the removal, and consequent reinforcement for the wanted behavior. This happens when fortification that formerly sustained the behavior is withdrawn in the occurrence of undesired behavior (Weiss et al., 2009). This means that the undesired behaviors are identified and through reinforcement and conditioning, the unwanted behavior is eradicated and replaced with an appropriate behavior.

Skinner defined behavior using a three-term concept which he dubbed the contingency of reinforcement (Kearny, 2008). When observing behavior, it is important for the professionals to identify the following, (a) the antecedent; what precedes the behavior that caused it, (b) the behavior needing to be modified, and (c) the consequences caused by the behavior. It is essential to identify these three aspects of the behavior because they help pinpoint the function of the behavior, which will aid in the modification of the undesired behavior. The concept of fluency is important in the reinforcement of the appropriate behavior which, as Weiss et al. (2009) illustrated, is described as a precise response, quick, and with no hesitancy. The practitioners need to be fluent in responses to the individual and identify maladaptive behaviors that need replacement. Baer, Wolf, and Risley (1968) wrote a review of ABA to describe and define the ABA treatment model and how ABA interventions should be formulated. Baer et al. (1968) argued that:

An applied behavior analysis will make obvious the importance of the behavior changed, its quantitative characteristics, and the experimental manipulations which analyze with clarity what was responsible for the change. In addition, the technologically exact description of all procedures contributing to that change, the effectiveness of those procedures in making sufficient change for value, and the generality of that change will be evident (p.97).

The ABA model puts emphasis on its interventions to be measurable and requires the clinician to track and review progress regularly. Baer et al.'s (1968) article is popularly used as a reference for clinicians which outlines and explains the seven dimensions of ABA, explicitly as (1) Applied, (2) Behavioural, (3) Analytic, (4) Technological, (5) Conceptually Systematic, (6) Effective, and (7) Generalizable Dimensions. Baer et al. (1968) defined the first dimension as the tag-applied, which stands resolute by attention that humanity show in the issues of study but not the procedural used in the research. Fisher et al. (2011) further stated that the selected behaviors that need to be acquired by

the individual with ASD are applied. This means that the behaviors learned are acceptable in the society and vital to the individual going through behavior modification.

The second dimension of behavior encourages the practitioner to focus on behaviors that are both observable and measurable. The practitioner needs to observe the behavior instead of relying on its reports. In addition, Fisher et al. (2011) reminded practitioners that in analyzing behavior, an effort should be made to find the purpose of actions by controlling the environment and observing the change in the actions of children with ASD. The third dimension is a concern that demonstrates the actions that cause the manifestation or non-manifestation of the particular behavior (Baer et al., 1968). The fourth dimension is the technique in constructing a specific social presentation that is totally recognized and labeled. This means that a typically competent student can duplicate that technique to yield a similar outcome by just following the explanations given (Baer et al., 1968).

As to the fifth dimension, Baer et al. (1968) stated that the available explanations of applied behavior analysis techniques are scientific and relevant to the expected standards. This allows applicability of the technology on the right use on the behavior of interest (Baer et al., 1968). The main idea is that an intervention should meet the criteria of ABA, such that it is founded on the psychology of behaviorism (Myers, 2015). The sixth dimension emphasizes on practical importance, specifically the power in altering behavior and asks if it is enough to be socially important. ABA entails observable proof that there has been a socially noteworthy change in behavior before success is attributed on an intervention. This is the essential criterion measure of effectiveness (Baer et al., 1968).

Finally, the change in behavior is said to have generality when there is proof of durable overtime as well as when change in related behavior appear widely on variety of possible environments (Baer et al., 1968). Although skills may be successfully trained to an individual with ASD in one setting, an intervention is only truthfully successful when the same individual can use the skillfulness in many other different settings or with many different social interactions. This is the crucial goal of all evidence-based ABA interventions for persons with ASD. This model is used to help improve on social interactions and communication in autistic children and decrease their troublesome behaviours like self-injury or aggression, stuttering, reading difficulties and anxiety (Myers, 2015). Modelling technique in learning involves observing and modelling the behaviour of others that is considered by society as being adaptive and positive. In some cases, the therapist is the one who models the desired behavior, while in other occasions, children watching their peers demonstrate behaviors that may be inspirational and helpful. This approach supports the aspect of group therapy in treatment of social skills (White et al., 2007).

DISCUSSION

Autism in schools

Recent studies have shown that ASD is on the rise (Kim et al., 2011; US CDC, 2014). A study in the USA established a prevalence rate for ASD of 1 in 50 from a telephone survey done on parents of school going children of 6-17 years of age, undertaken in 2011-2012 (Blumberg et al., 2013). However, whether this is due to improved diagnostic methods or the reality that the condition is becoming rampant is yet to be sustained. Although policies are in place concerning education and work placement for individuals with disabilities in the developed countries, very little has been done in

developing countries along these lines (Riccio, 2011). However, having Kenya Institute of Special Education and local universities introduce programs of autism training has gradually raised the knowledge of ASD among the professionals (KISE, 2008). Research on the disabled society is scanty in Kenya, and there is need for more work to be done. Nevertheless, there exists a huge gap in the available knowledge among both professionals and common citizens hence a call for more awareness.

Anxiety and social skills deficits can extremely impact the lives of children who already are experiencing difficulties in social relations, communication, restricted interests and repetitive behaviors (APA, 2013). Studies have shown that early treatment improves the functioning of children with ASD (Attwood, 2004; Sung et al., 2011). However, children with ASD in Kenya have continued to experience problems with anxiety and social skills even after being exposed to other treatments especially medical interventions. Kenya lacks integrated documentation of the rehabilitation services for ASD and other neuro-developmental disabilities (Gona, 2016). Further, most trained special needs teachers end up being posted where their services are least needed (Macharia, 2014). Such gaps in intervention seem to underscore the call by WHO in 2014, to partner states around the world, to increase health and social care systems' capacities. While Education for All was a target to be achieved by 2015 as a policy schema in 129 developing nations worldwide at the World Education Forum (Dakar, 2000), registration of children with disabilities remains low in schools. Dynamics such as social stigma, parents' belief system about the nature of services and the isolation of disability services in a given area contribute to poor enrolment in schools (Mutua, 2001). These needs call for professional intervention in both advocacy and intervention.

Surprisingly, a misconception of disabilities such as autism being considered a curse, has led to inaccessibility of diagnostic and treatment services for those afflicted by autism disorder (Ileri *et al.*, 2019; Cohen, 2012; Riccio, 2011). The lack of proper implementations of government policy to aid these individuals and their caregivers leaves both parents and children stigmatized in the society. Consequently, many parents hide their autistic children rather than seek help (Maulik & Darmstadt, 2007; Riccio, 2011). From the foregoing discussion, there seems to be need for more research on disabilities, especially for autism (Cohen, 2012). In a preliminary survey of schools, it was estimated that there could be up to one million special needs children in Nairobi (Onsolo, 2010 as cited in Riccio, 2011). Given that there are only few schools for children with autism and the integrated special needs education into mainstream schools in Nairobi, the question would be- where are the rest of these children? This therefore suggests the need for a structured intervention in the school set-up that could cater for special needs in children with autism.

Whereas clinicians deliver treatment in a therapeutic setting, it is significant that school staff members are equipped with approaches to help a child with ASD cope in school (Ileri *et al.*, 2019). Further, since the child will typically spend more time at school than in a therapy session, teachers support is vital. Teachers are encouraged to be hands-on in helping students manage their anxiety by applying anxiety-reducing breaks during the day and scheduling for unstructured times such as lunch, recess and transition periods. Teachers can help children cultivate self-regulation skills by assisting them to identify the progression of their emotions by use of emotional thermometer, especially for children with mild autism. This is a visual tool that shows through pictures and graphics with various emotions related with anxiety and offers an equivalent self-regulation approach for the learner (Minahan & Rappaport, 2013).

Body checks which need the teacher to narrate the behavior cues that a student may be demonstrating can be used by the teacher. This will help students understand what an emotion looks and feels like for them. Finally, teachers can provide direct instruction and opportunities to practice self-calming skills. This is because many students with ASD may not know how to self-calm in anxiety-producing situations.

Special needs education in Kenya mostly cater for four commonly known classifications of children with special needs, that is; Optical, Hearing impairments, Mentally handicapped and Motor complications, but with the exception of education of ASD (Mwendo, 2011). However, a few centers have started special vocational programs for children with ASD. The Kenyan education system has a common examination that can accommodate some disabilities except autism. This makes it difficult for further placement for children with autism to get formal jobs where formal certificates are the norm. This means that such children are disadvantaged because they are likely to be limited to undertaking vocational jobs. In other words, whereas education of children with disabilities is on offer in special schools or distinct units and integrated programs in regular school, children with ASD appear to have been systematically left out (Mwendo, 2011; Riccio, 2011; Weru, 2005).

This exclusion is mainly because of lack of an effective implementation of policy and institutional framework for children suffering from ASD. These contravenes the Kenyan constitution that was promulgated in 2010 in Chapters 4, part 3 and Section 54 of the new (Constitution of Kenya, 2010), stipulating the rights of all individuals with disabilities. The Constitution offers various entitlements such as being handled with respect and dignity, admission to institutions of learning and social amenities, access to information and public transport, use of applicable means of communication such as sign language, devices and materials to overcome the limitations arising from the challenges (RoK, 2010). However, despite the clarity of the Constitution, no legislation has been enacted to date. As a result, children with disabilities especially ASD continue to have challenges in accessing services.

City Primary School in Nairobi was the first school to pilot inclusive education for children with autism (Mwendo, 2011). Mwendo further states that educating children with disability alongside those without disability in regular schools refers to the process of inclusive education. This involves equipping the children with relevant requirements irrespective of their ability or disability through applicable curricula, organizational provisions, teaching strategies, resources sharing and partnership with communities. However, according to Mwendo (2011) Kenya has no specific legislation on inclusive education for children with ASD. A preliminary study in 2015 showed that at the Kenyatta National Hospital there were 25 children and adolescents with ASD, who turned up every month, with two to three new patients every month (Ileri 2015). Table 2 clearly gives an indication of the turn up of children with ASD with negligible follow-up as compared to ASD prevalence cases.

Table 2: ASD Prevalence in Main Hospital in Nairobi

Hospital	ASD patient's turn-up in a month	Treatment Approach used	Gender	Ages
Kenyatta Referral Hospital	22- 25	-psychotherapy -pharmacology	16- boys 8 – girls	3- 13 years
Mathari Hospital	N/A			
Nairobi Hospital	N/A			
Mbagathi Hospital	N/A			

Source: Ileri (2015)

The Effect of Autism on Children

Social connections are central in distinguishing ASD, which present with varying severity on persons experiencing the disorder. Extreme anxiety has a negative effect on the children with ASD as they try coping by the burdens of socializing, sensual competences, besides the overall impulsiveness of daily living (Attwood et al., 2009). This manifests typically in having difficulties in development of age fitting relations and exhibiting absence of responsiveness.

Most often the children presented with ASD are mainly over-dependent on non-functional habits (APA, 2013). The persons experiencing anxiety conditions have an unmanageable, extreme fear which varies from the real cause that interferes with the daily functioning (APA, 2010; White et al., 2009; Wood et al., 2009). Anxiety conditions include separation, obsession compulsion, generalized and social anxieties (APA, 2013; Attwood et al., 2009). Common to children with conditions like anxiety include separating from the caregiver, extremely avoiding of some conditions, somatization, extreme fear to items or events, disturbed sleep, distressed thoughts, over-reactions, perfectionism, and anticipatory anxiety (Reaven, 2009). The ASD symptoms are often not easy to differentiate from nervousness disorder; such as, obsession compulsion rites and repetitive behaviors in ASD because they present similar symptoms (Ozsivadjian & Knott, 2011).

Adolescents with ASD challenges have problems in forming and maintaining healthy social relationships (Ileri, Mwayo & White 2019; White, 2013). Studies show that these children do not have the relevant skills needed to relate normally with other non-ASD children due to the impairment of neurological functions (White, 2013; Wood, 2009). A brief summary of social problems in APA (2013) includes deficiency in social emotional exchange, minimized desire to share interests, an irregular social tactics and lack of communication reciprocity. Deficiency in communication skills used for social interactions and poor integration of verbal and nonverbal communication form part of the challenge's children with ASD face in forming meaningful peer relationships (Shumway & Wetherby, 2009; Wetherby et al., 2007).

Anxiety symptoms and social difficulties that have a relation to bouts of depression might negatively influence social relations and academic performance in kids with ASD (Chang, Quan, & Wood, 2012). To address social difficulties, anxiety must be dealt with first to restructure the behavior patterns of the mind (White, 2009). This is because anxiety is the problem that causes the person to develop negative illusions about his environment and consequently behave abnormally about it (Reaven, 2011; White, 2013; Wood, 2012). Ganz (2007) classified the burden of care as direct and indirect costs of ASD to society. Direct costs include medical support services, such as doctors, hospitals, medications, equipment, and supplies, while nonmedical support services include education, child care, respite care, transportation, housing, and supported employment. Indirect costs include lost workforce productivity and benefits of individuals with ASD and their families, which often result from missed time at work, reduced hours, reduced salary, and unemployment. Individuals with ASD require more direct and indirect costs than individuals without ASDs (Ganz, 2007; Friedman & Martin, 2007; Shimabukuro, Grosse & Rice, 2008).

The above effects impact negatively on the problem of ASD in developing countries, especially Kenya, where no known services are available to combat the disability. For example, a parent who leaves her job to look after a child with ASD has to put up with lack of food and other basic needs for the rest of the family. The weight of the problem is heavy on the family far much more than the government that lacks supportive

measures to the problem. The availability of treatment such as Multimodal Anxiety and Social Skills Intervention (MASSI) in a school setting can ease the burden of having to transport the child in case the intervention is in a hospital setting.

Management of Autism Spectrum Disorder in Children

According to WHO (2014), researches carried out over the past fifty years have shown an increasing prevalence of ASDs condition around the world. A study by WHO (2013) proposed that the widened diagnostic criteria, enhanced awareness, advanced tools of testing, and value-added reporting would explain the apparent increase in prevalence. In regard to the Center for Disease Control (CDC, 2015), ASD appears early in life, usually by the third year of age, and is known to be four to five times high in boys than in girls (US CDC, 2014). Cohen (2012) observed that many children with ASD did not receive intervention services until at a very late age. Studies have also confirmed that late diagnosis hinders early and successful intervention (Minahan & Rappaport, 2013). Besides, it was established that the Educational Assessment and Resource Center (EARC) lacked personnel and funding to provide adequate services for young children with ASD (Cohen, 2012; Ileri Mwayo & White, 2019).

In a systematic review of over 40 studies to survey CBT on anxiety conditions as well as the indicators in children, there is pragmatic evidence essentially supportive of CBT as one successful mental treatment acknowledged with evidence (Kendall et al., 2003). The effect-size achieved in random control trials has normally been large, confirming the effectiveness of CBT in the treatment of anxiety (Chorpita, Yim, & Donkvoet, 2002). The post-treatment valuations results showed that about two in three teenagers receiving CBT treatment could anticipate being freed from principal verdict of analysis. To maintain the gains from the intervention could further improve the performance of the children as observed in the studies which trailed treated children for post-treatment of nine years (Nevo & Manassis, 2009). Furthermore, it has been previously specified that CBT in children anxieties seems successful as well as with the comorbid (Ollendick et al., 2010; Ileri, Mwayo & White, 2019), and across different ethnic and cultural groups (Ginsburg & Drake, 2002; Kendall et al., 2006). According to Ileri, Mwayo & White, 2019, there is need to acknowledge the achievement made by the child however small.

CONCLUSION

Parents and families have found it overwhelming to raise children living with autism spectrum disorder (ASD). The high prevalence rate of children being affected with autism is overwhelmingly pervasive with some cases of recurrence in families. Children with ASD are often less likely to demonstrate social-communicative behaviours in their early years of development when compared to their early compared to their regular peers. While this is a characteristic that draws the children away from socializing, it is apparent that their parents and family members become even more affected reciprocally to an extent that they negatively influence treatment for betterment in their children. In addition, whereas education of children with disabilities is on offer in special schools or distinct units and assimilated programmes in regular schools in Kenya, children affected with the ASD appear to have been systematically left out.

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