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Rehabilitation Services for Persons with Autism Spectrum Disorder in Nigeria

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Abstract
Persons with Autism Spectrum Disorder (ASD) can remain dependent for a life time if not well catered for, through appropriate and adequate intervention. Therefore, the provision of special needs education and rehabilitation services are critical means of ensuring effective turnaround of people with ASD for an independent life. Meanwhile, the issues of catering for persons with ASD are just evolving in Africa, if compared to other forms of disabilities. A lot of efforts are directed towards helping and supporting people with other forms of disabilities for self-reliance but not so much for persons with ASD locally. It is against this background that this paper was written to bring to the fore various strategies and services for meeting the special needs and rehabilitation services of persons with ASD. It was thereafter recommended that adequate provision should be made at the various rehabilitation centres and staff should be trained on the better ways of service delivery to persons with ASD in Nigeria.
Keywords: Autism Spectrum Disorder, Special Needs, Rehabilitation Services

Introduction
Autism is a complex neuro-behavioural condition that includes impairment in social interaction, developmental language and communication skills combined with rigid, repetitive behaviours. Because of the range of symptoms, this condition is now called Autism Spectrum Disorder (ASD). According to the American Psychiatric Association (2004), the core features of autism are: difficulty with social interaction; impairments in verbal and non-verbal communication; restricted, repetitive and stereotypical patterns of behaviours, interests, and activities. In addition to the core features above, many people across the autism spectrum may have difficulty processing and modulating sensory information, planning goal directed movements; they also experience high levels of anxiety. Romoser (2007) believes that such people have unusually developed skills in other areas, such as drawing, creating music, solving mathematical problems, or memorizing facts. For this reason, they may score higher, perhaps even in the average or above-average range on non-verbal

intelligence tests. Several other conditions common in children with autism, according to Olney (2000) includes genetic disorders, intellectual disability, anxiety disorders, epilepsy, several metabolic defects, pre-empted diagnoses and sleep problems.

Until recently, the types of ASD have been determined and defined by guidelines in the diagnostic manual (DSM-IV) of the American Psychiatric Association (2004) to include Asperger's syndrome, Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS), Autistic disorder, Rett syndrome and childhood disintegrative disorder. A brief explanation of these is here presented.

Asperger's Syndrome (AS): This is the mildest form of autism, which affects boys three times more often than girls. They become obsessively interested in a single object or topic, lacking social skills and are often awkward and uncoordinated. Also, children with AS frequently have normal to above average intelligence. As a result, they are called "High-Functioning Autism" (HFA). As they enter adulthood, they are at high risk for anxiety and depression.

Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS): Children with PDD-NOS are more severe than those with Asperger's syndrome, but not as severe as autistic disorder. They have impaired social interaction, better language skills than children with autistic disorder but not as good as those with Asperger's syndrome. They also have but less repetitive behaviour than children with Asperger's syndrome or autistic disorder and a later age of onset. No two children with PDD-NOS are exactly alike in their symptoms, since there are no agreed-upon criteria for diagnosing PDD-NOS.

Autistic Disorder: People with autistic disorder have more severe impairments involving social and language functioning, as well as repetitive behaviours. Often, they also have mental retardation and seizures.

Rett Syndrome: Children with Rett syndrome often exhibit autistic-like behaviours. It is caused by a genetic mutation and unrelated to ASD. It usually occurs randomly, rather than being inherited. Treatment focuses on physical therapy and speech therapy to improve functioning. It is a genetic condition occurring almost exclusively in girls, which causes slowing of head growth, intellectual disability and loss of purposeful hand use.

Childhood Disintegrative Disorder (CDD): This is the most severe autistic spectrum disorder in childhood and it is also the least common. After a period of normal development, usually between ages 2 and 4, a child with CDD rapidly loses multiple areas of functioning, such as social and language skills as well as

intellectual abilities. Often, the child develops a seizure disorder. Children here are severely impaired and do not recover their lost function. Boys are affected by CDD more often than girls.

Autism spectrum disorder has no single known cause. It can be genetic and environmental. According to Lord and Paul (2007), genetic problems may be associated with a genetic disorder, such as Rett syndrome or fragile X syndrome. For others, genetic changes may make a child more susceptible to autism spectrum disorder or create environmental risk factors. Still other genes may affect brain development or the way that brain cells communicate, or they may determine the severity of symptoms. Some genetic problems seem to be inherited, while others happen spontaneously; while environmental factors such as viral infections, complications during pregnancy or air pollutants are currently being explored by researchers to know whether they play a role in triggering autism spectrum disorder (Attwood, 2007). Meyer (2001) stated risk factors to include the child's sex, family history, other disorders, extremely pre-term babies, parents' ages and lack of vaccination against rubella during pregnancy. Therefore, rehabilitation services for persons with ASD require diagnosis, collaboration of professionals and intensive management strategies.

Prognosis and management of ASD in Rehabilitation Services in Nigeria

Nigeria stands a great loss if appropriate rehabilitation services are not put in place for persons with ASD. Dada (2017) reported that the state of most rehabilitation centres for persons with ASD in Nigeria is disheartening because most of them are not in good condition. The situation in most rehabilitation centres therefore demand urgent intervention for appropriate inclusion of the vulnerable (individual with Autism) in the development of the nation. To realize effective rehabilitation service for people with ASD and other forms of disability, a team of specialists or therapist is very crucial for diagnosis and treatment. These specialists include child psychologists, child psychiatrists, speech pathologists, developmental pediatricians, Pediatric neurologists, audiologists, physical therapists and special education teachers. Therefore, the management of people with ASD is progressive, intensive and requires time because it takes consistent therapy over a time to get result. Early intervention of special education and rehabilitation services including behaviour therapy could help children acquire self-care, social and job skills, and often improve functioning and decrease symptom severity and maladaptive behaviours (Billstedt, Gillberg & Gillberg, 2011). The rehabilitation services are provided in a number of therapies depending on the nature of autistic disorder and perhaps with other form of disabilities that coexist with the spectrum disorder. Hurlburt and Chalmers (2004) listed available approaches to include Applied Behaviour Analysis (ABA), developmental models, structured teaching, speech and language therapy,

social skills therapy, and occupational therapy. The treatment strategies of ASD can be broadly classify as follows.

Behaviour and communication therapies: This strategy addresses the social, language and behavioural difficulties associated with ASD focusing on reducing problem behaviours and teaching new skills, teaching children how to act in social situations or how to communicate better with others (Farrugia & Hudson, 2006).

Educational therapies: Capo (2001), asserted that children with ASD often respond well to highly organized educational programs which often includes a team of specialists and a variety of activities to improve social skills, communication and behaviour.

Family therapies: Parents and other family members can learn how to play and interact with their children in ways that promote social interaction skills, manage problem behaviours, teach daily living skills and communication (Bennet & Dukes, 2013)

Medications: No medication can improve the core signs of ASD, but certain medications can help control symptoms. For example, antidepressants may be prescribed for anxiety, and antipsychotic drugs are sometimes used to treat severe behavioural problems. Other medications may be prescribed if the child is hyperactive.

Alternative therapies

Furthermore, since autism spectrum disorder cannot be cured, many parents seek out alternative and complementary therapies; but these treatments have little or no research to show that they are effective. These could, unintentionally, reinforce negative behaviours and some alternative treatments are potentially dangerous. Cimera and Cowan, (2009) gave examples of complementary and alternative therapies to include:

Creative therapies: Some parents choose to supplement educational and medical intervention with art therapy or music therapy, which focuses on reducing a child's sensitivity to touch or sound.

Sensory-based therapies: These therapies are based on the theory that people with ASD have a sensory processing disorder that causes problems tolerating or processing sensory information, such as touch, balance and hearing. Therapists use brushes, squeeze toys, trampolines and other materials to stimulate these senses and organize the sensory system. Research has not shown these therapies to be effective, but it is possible they may offer some benefits when used along with other treatments.

Special diets: Several diet strategies have been suggested as possible treatments for ASD, but more research is necessary to see if they have any effect on ASD signs and symptoms.

Chelation therapy: This treatment is said to remove mercury and other heavy metals from the body, although it is not supported by research evidence and can be very dangerous. In some cases, children treated with chelation therapy have died.

Acupuncture: This therapy has been used with the goal of improving ASD symptoms. However, the effectiveness of acupuncture for ASD has not been supported by research (Chapel & Somers, 2010).

Areas of strength in persons with ASD

Persons with ASD have areas of strength which should be identified and supported during rehabilitation. According to Fleming, Fairweather and Leahy (2013), who discovered that individuals with autism have a variety of difficulties, however, they also have some distinctive strengths, which includes: Ability to understand concrete concepts, rules and sequences, strong long term memory skills, Mathematics skills, Computer skills, Musical ability, Artistic ability, Ability to think in a visual way, Ability to decode written language at an early age, Honesty, Ability to be extremely focused and Excellent sense of direction. Despite their difficulties in certain areas, people with autism also have a great deal to offer in the labour market and some of the characteristics linked to their disability can sometimes prove to be an asset (Renty & Roegers, 2006) if appropriate job rehabilitation is adequately provided.

While offering support for their difficulties, it is also important to recognize and make full use of their individual strengths. Each person with autism is unique, and many have characteristics and an above-average level of skills in specific areas that could help an organization that employs them to thrive. These include high levels of concentration and ability to excel at repetitive tasks, reliability, low level of absenteeism and loyalty, detailed factual knowledge, specialist technical skills and interests, excellent record-keeping and memory, problem-solving skills, retention and resourcefulness (Duffy, Oppermann, Smith & Shore, 2007). For this article, the term ASD will be used throughout to represent adults with autism, who do not have severe intellectual disability.

It has been known for decades that individuals with Autism Spectrum Disorders (ASD) in Nigeria, including those with significant impairment or who have behaviours that others find challenging, can work when they are given appropriate supports (Carter, Austin & Trainor, 2012). It is also clear that individuals with ASD can benefit from employment. These benefits include improved emotional state, greater financial gain, decreased anxiety, greater self-esteem, and greater

independence (Mawhood & Howlin, 2009). Nonetheless, employment outcomes for individuals with ASD have traditionally been poor (Bilstedt, Gilberg & Gilberg, 2005; Howlin, Goode, Hutton & Rutter, 2004). Even those who do find work are often underemployed or do not hold onto jobs for a long period of time (Muller, Schuler, Burton & Yates, 2003). It is a mistake to assume that these historically poor employment outcomes for individuals with ASD mean that most cannot work. People with ASD can work when employment staff helps them find the right job match and when appropriate and individualized supports are built in. It must be emphasized that each person with ASD is unique. Even those who share a common specific diagnosis (such as Asperger syndrome, autism, or PDD-NOS) differ from one another in their skills, interests, motivation, ability to communicate, behaviour, and social ability (Quirk, Zeph & Uchida, 2007). The employment specialist must develop a thorough understanding of the individual's unique characteristics, learning style, strengths and interests (Lugnegard, Hallerback & Gillberg, 2011).

There are several different employment options for individuals on the autism spectrum. It should be noted that a young adult with autism can go from one type of employment option to another. According to Seltzer, Shattuck, Abbeduto and Greenberg, (2004), possible types of employment include:

Competitive Employment: This is a full-time or part-time job with market wages and responsibilities. Usually, no long-term support is provided to the employee to help him learn the job or continue to perform the job.

Supported Employment: In supported employment, individuals with autism work in competitive jobs but receive ongoing support services while on the job provided as long as the person holds the job, although the amount of supervision may be reduced over time as the person learns to do the job more independently (Burgess & Cimera, 2014). It can be funded through state developmental disabilities or vocational rehabilitation agencies.

Customized Employment: Eaves and Ho (2008) explains it as finding creative ways to identify and use the strengths and abilities of individuals with significant disabilities by actively negotiating job tasks or duties with businesses. This avenue establishes a unique relationship between employer and employee, in that it enables both parties to get as much from the relationship as possible. Customized employment is similar to supported employment in that it requires learning about the individual and understanding his or her strengths and support needs. In a customized employment situation, however, the job and job description are uniquely created for the individual at hand.

Self-Employment: This involves matching an individual's interest and strengths to a product or service that could provide an income; this increases the opportunity to tailor the work environment to the needs of the individual, and to tailor the job, or a

portion of the job to the strengths of an individual (Garcia-Villamisar & Hughes, 2007).

Secured or Segregated Employment: Burt, Fuller and Lewis (2001), states that here, individuals with disabilities (not necessarily autism specifically) work in a self-contained units and are not integrated with workers without disabilities. This type of employment is generally supported by a combination of federal and/or state funds. Some typical tasks include collating, assembling or packaging.

Sheltered Employment: This involves programmes in a protected environment that provide training and services that will assist adults with autism in developing life skills as well as educational and pre-vocational skills (Hendricks & Wehman, 2009). However, critics argue that the sheltered workshop system is more often geared toward the fostering of dependence within a tightly supervised, non-therapeutic environment than toward encouraging independence in the community at large.

Fast (2004), highlighted agencies that may Help with the Employment Process, to include The Autistic Self Advocacy Network (ASAN), Autreach IT-a Community-Based Participatory Research (CBPR) project group in the United Kingdom, The National Autistic Society's Employment Training and Consultancy Service, The Autism Acceptance Project, Autism Network International and most importantly Vocational Rehabilitation Agency which is the focus of this paper. In Nigeria people with autism can access employment from all ministries and parastatals, some Non-Governmental Organizations (NGOs) and international organizations such as UNICEF, UNESCO, USAID and WHO.

Conclusion

Autism is not a new form of disability as many people thought of it, but it has not been clearly understood and provided for. Therefore, many professionals including special educators still wonder on how to help them leave an independent life. It is however possible for persons with ASD to leave an independent life if well provided for and supported.

Recommendations

Based on the exposition in this paper, the following are recommended:

1. A survey of the need assessment of the rehabilitation centres with respect to rehabilitation services for persons with ASD should be carried out by government.
2. Staff of special schools and rehabilitation centres should be trained on better service provision for person with ASD.
3. Government should ensure adequate provisions for the optimum rehabilitation service delivery for person with ASD in all the rehabilitation centres.

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