

Paul NI  
Gabriel-Brisibe CU

## Awareness of autism amongst primary school teachers in Yenagoa city, Bayelsa State

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Paul NI (✉)  
Department of Paediatrics and Child Health, University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State, Nigeria  
Email: nsypaul@yahoo.co.uk

Gabriel-Brisibe CU  
Departement of Paediatrics and Child Health, Niger Delta University Teaching Hospital, Okolobiri, Bayelsa State, Nigeria.

**Abstract:** *Background:* Autism is a chronic neuro-developmental disorder and teachers of pupils with autism require a basic understanding of the disorder.

*Objective:* To determine the awareness of autism amongst primary school teachers and to find out pupils with symptoms of Autism Spectrum Disorder in Primary schools in Yenagoa.

*Materials and methods:* A cross-sectional study was carried out among primary school teachers in Yenagoa, Bayelsa State. Cluster sampling technique was used to recruit 18 primary (9 public, 9 private) schools. A self-administered pre tested questionnaire was used to collect data from one hundred teachers in these schools. Data were analysed using descriptive statistics and presented in tables.

*Results:* A total of 100 teachers, consisting of 30 (30%) males and 70 (70%) females were studied.

The response rate was 92.6%. Sixty six percent of the teachers have heard of the word autism, 34.8% heard it by social interaction while 27.3% heard it through the media. Of those who have heard the word autism, 18.2% said it was a psychiatric disorder. Fifty seven pupils (M: F ratio 3.75:1) had symptoms of autism spectrum disorder, a prevalence of 9.0%. Only 50% of the teachers perceived the pupils problem as a neuro-developmental disability. About seventy eight percent of these children with autistic trait had poor academic performance while 19.4% were good in calculations.

*Conclusion:* Autism spectrum disorders do exist among primary school pupils in Yenagoa. The level of teachers' awareness is low and this requires training and re-training of teachers to enable them cope with the needs of these children.

### Introduction

Autism is a chronic neuro-developmental disorder characterized by the quantitative impairment of the triad of social, communicative and imaginative development<sup>1</sup>. It is the prototype of Autism Spectrum disorders also called Pervasive Developmental Disorders (PDD). The symptoms range from mild to severe hence referred to as being in a Spectrum. The cause of autism is unknown however, genetic and environmental factors have been suggested among others<sup>1</sup>. From 18 months of age, parents begin to show concern for the child and the average age of diagnosis is 3-5 years<sup>2</sup>. Socially, the child may have abnormal eye contact, gestures and mannerisms. He or she may find it hard to play with their peers and is rather attached to objects; they may not speak clearly or not speak at all; may not be able to engage in pretend or imaginative play; may want sameness in activities like drinking from same cup every day, or wearing same clothes every day; ritualistic behaviours like opening and shutting doors and may throw tantrums occasionally for no apparent reason<sup>1,2</sup>.

Autistic children in a typical school in Nigeria face a scaring challenge early on in life. They are labelled with derogatory names by parents, teachers and their peers. Autism is easily taken for something else as these children are passed on as academically backward, 'possessed' by evil spirits or suffering from some kind of parental neglect or the other<sup>3</sup>. They can even be flogged if the teacher gets nauseated by their slowness.<sup>3</sup> Parents also have to cope with the reality of rejection from school to school of their 'slow' child and sometimes lack of empathy from authorities and other care givers and teachers. As a result of these problems, teachers may have difficulty in teaching them together with other pupils in class.

In 2007, the United Nations declared April 2<sup>nd</sup> as World Autism Awareness Day to propagate the awareness of autism and to canvass for assistance and funds for research and intervention<sup>4</sup>. There is a growing awareness and increasing prevalence of autism in the western world and some parts of Africa<sup>5,6</sup>. Nevertheless, apart from a few individual and nongovernmental efforts, only few states in Nigeria have embarked on the campaign

for autism awareness. Up to this time, there has been virtually no awareness or sensitization to recognise neuropsychological disorders in pupils/students at any level of the country's educational system." Also, the level of preparedness of our teachers to cater for the educational and social needs of these children is poor.

The puzzling situation is that it is believed that the umbrella term 'special needs school' should cater for all disabled children. But our schools have paucity of facility to cater for the blind, deaf and lame, more so, many others who are all lumped into one classroom for the mentally retarded. It is difficult to give specialized attention to those who have impaired communication, social interaction and imaginative functions with no obvious physical disability as is the case in autism, the subject of this research.

Furthermore, in Bayelsa State, there is paucity of data with which to canvass for assistance for autism, due to lack of awareness amongst teachers, researchers and even health personnel. There is no active surveillance as in other parts of the world where major efforts and funds are being put in to fund research into autism. There is evidence that early identification and intervention can help individuals overcome many of the symptoms and lead a productive and successful life.

The objective of this research is therefore to determine the level of awareness of autism amongst primary school teachers and to determine if there are pupils with symptoms of Autism Spectrum Disorder in Primary schools in Yenagoa City. It is aimed to highlight the need for educational intervention for the autistic spectrum disorder in our society and hopefully become a tool for canvassing for interventions for this group of children in Nigeria.

## Methodology

The study was a cross-sectional study carried out from May to August 2012. The State Ministry of Education gave approval for the study protocol. A list of the public and private schools was obtained from the Ministry of Education. There was an average of thirty and forty pupils per class in private and public school respectively. The schools were clustered into nine communities with a public to private school proportion of 1:1. One private and one public school were sampled from each cluster. A total of 18 schools, nine public and nine private Primary schools were recruited by cluster sampling method. An average of six teachers was selected in each school, one from each class of primary one to six. A self-administered pretested questionnaire was used to get information on socio-demographic data and knowledge of autism, while the recruited teachers (after training) used a modified Checklist for Autism Spectrum Disorder (CASD) to screen each pupil in his/her class for trait (s) of autism spectrum disorders. The academic performance of these children with autistic traits were assessed using their current and previous results in the past one

year from the schools head teachers' records. The obtained data were presented in tables of frequencies and percentages. The CASD is a simple, quick and valid instrument with closed ended questions used for screening and diagnosing children aged 1-16years with autism across the entire autism spectrum, regardless of age, IQ, or autism severity.

## Results

Socio-demographic characteristics of respondents.

One hundred and eight questionnaires were given to teachers selected from eighteen primary schools. One hundred completed questionnaires were returned giving an overall response rate of 92.6%. More females 70 (70%) than males 30 (30%) participated in the study. There was a near equal representation of teachers from the private and public schools. Only 8% of the teachers were from primary six. Table 1

**Table 1:** Socio-demographic characteristics of respondents

Characteristics		Frequency n=100	Percentage (%)
Sex	M	30	30.0
	F	70	70.0
Type of school	Private	46	46.0
	Public	54	54.0
Class taught by respondents	Primary 1	22	22.0
	Primary 2	20	20.0
	Primary 3	17	17.0
	Primary 4	17	17.0
	Primary 5	13	13.0
	Primary 6	8	8.0
	No response	3	3.0

## Awareness/knowledge of autism

*Have you heard the word autism?*

Thirty four (34.0%) of the teachers have never heard of the word autism while 66 (66.0%) have heard the word.

*What is autism?*

Among those who have heard of autism, 18.2% said it is a psychiatric condition similar to madness, while 77.3% said it is a disability in social, communicative and imaginative functions of the brain as shown in Table 2.

**Table 2:** Response to what is autism.

Response	Frequency (no)	Percentage (%)
A strange word	1	1.5
A psychiatric condition similar to madness	12	18.2
A disability in social, communicative and imaginative functions of the brain	51	77.3
A speech defect	1	1.5
No response	1	1.5
Total	66	100

### Source of information of the word Autism

Table 3 shows that about 35% of the respondents heard the word autism by social interaction while 27.3% heard it through the media.

Medium	Frequency (No)	Percentage (%)
Social interaction	23	34.8
Media- Tv or radio	18	27.3
Self-attended seminar	10	15.2
Schools organized seminar	1	1.5
During training to become a Teacher	13	19.7
No response	1	1.5
Total	66	100.0

### Pupils with traits of autism

Thirty one (31.0%) of the teachers have pupils with traits of autism while 68 (68.0%) had no pupil with autistic trait. There was no response by one(1.0%) of the teachers. No of children with traits of autism and their sex distribution

Table 4 shows the children with traits of autism and their sex distribution. A total of 57 pupils had traits of autism. More males (45) than females (12) (M: F ratio 3.75:1) had traits of autism.

Traits of Autism explored	Male (n)	Female (n)	Frequency (n)
Absent or delayed or abnormal speech	4	2	6
Little awareness of others, prefers to play alone, overly withdrawn	10	6	16
Has odd mannerisms, play is rigid and stereotyped	10	2	12
Inappropriate use of toys, attached to objects	13	1	14
Throws tantrums for no apparent reason	8	1	9
Total	45	12	57

### Teachers' perception of the pupil's problem

Among the teachers who had pupils with traits of autism, the pupils problem was perceived to be due to spiritual affliction, parental neglect and developmental disability in 14.0%, 22.0% and 50.0% respectively as shown in table 5.

Perceived problem	Frequency (n)	Percentage (%)
Spiritual affliction	7	14.0
Parental neglect	11	22.0
Neuro-developmental disability	25	50.0
Psychiatric illness similar to madness	7	14.0
Total	50	100.0

Note: Some of the teachers gave multiple responses.

### Treatment Advice of respondents to parents with such children

Of the teachers who had children with traits of autism, 28% said the child should visit a hospital for medical attention while 16% advised that the child should go for deliverance (*exorcism*) in a church as shown in Table 6

Response	Frequency (No)	Percentage (%)
Take child to special need school for the deaf, dumb and mentally retarded	20	26.7
Take child for deliverance in a church	12	16.0
Be a more caring parent	22	29.3
Visit a hospital for medical attention	21	28.0
Total	75	100.0

Note: Some of the teachers gave multiple responses

### General Academic performance of these children

In twenty four (77.4%) of the children with autistic traits, their academic performance were below average, 6 (19.4%) were good in calculations while 1(3.2%) had excellent performance in all subjects.

## Discussion

This study showed that sixty six percent of the teachers have heard of the word autism, however, 21.2% of them have a wrong understanding of the meaning of autism with 18.2% saying that it was a psychiatric condition similar to madness. This shows that not all teachers who have heard of autism have the correct knowledge of it. When this large proportion of teachers (>50%) who are saddled with the responsibility of imparting knowledge to the child have a misconception on autism, the future of such children are rather bleak. It is well established that teachers' expectations of pupils/students with learning disabilities will affect their instructional goals and methods; also, understanding of the core deficit of autism is likely to have a positive impact on educational practice<sup>7</sup>. Earlier studies among teachers in the early 2000s showed that this misconceptions also existed in the Western countries where autism was thought of as a form of schizophrenia<sup>7</sup>. However, with increasing globalisation our teachers need to be retrained to catch up with the global trend so as to remain effective as agents of change in the education sector. This is more so as studies have shown a global increase in the prevalence of autism<sup>3</sup>.

The source of the information was from social interaction in 34.8% and the media in 27.3% of the cases. The use of social networks as medium of information dissemination is fast assuming a wide importance. However, the content of the information must be well verified as it is also a source of wrong information dissemination. This finding confirms the media as an important tool in creating awareness on issues as important as

autism. School-organized seminar was the least common medium (1.5%), suggesting that the educational sector has not yet put in adequate effort in training and retraining her teachers on neuro-developmental disabilities. This is in keeping with the statement made by Adeyemi A. at the first African stuttering conference in 2005 where he said that up to that time, there had been virtually no awareness or sensitization of teachers to recognize neuropsychological disorders in students at any level of the county's educational system<sup>7</sup>.

Fifty seven pupils were identified with traits of autism in 18 primary schools meaning there could be an average of three autistic children in each primary school and a prevalence of about 9.0% (considering the average number of children per class in public and private schools in Yenagoa). This shows that autism does exist among primary school pupils in Yenagoa. This figure may actually be an under estimation of the true picture of autism as many of these children are not accepted in regular schools or are told to withdraw from schools due to their academic backwardness or poor tolerance of these children by their peers and or the teachers<sup>8,9</sup>. A study in Edo state Nigeria, on Autism among primary school pupils in Benin metropolis showed that 22.9% of the respondents acknowledge the existence of autism<sup>9</sup>

Although 50% of the respondents who had pupils with traits of autism identified that such a pupil has a developmental disability, there were still another 50% who perceived autism as an evidence of parental neglect, spiritual affliction or a psychiatric condition similar to madness. These misconceptions about autism were also shown in the study carried out by Stepping Stones in Nigeria in 2010<sup>6</sup>. It is only by re-training of these teachers and creating more awareness on autism to not just the teachers alone but to parents and the entire public that such misconceptions can be reduced to the barest minimum.

The advice of teachers to parents with autistic children to be more caring (29.3%) and to take these children to church for exorcism (16%) is not surprising since there is a wrong understanding and perception of the fundamental problem. The role of prayers in the management of autism has not been documented; however, the spiritual connotation of diseases in the African setting makes prayer an important aspect of management. Management of these children is multidisciplinary and involves behavioural modification, counselling, special education, speech therapy, diet modification and treatment of associated problem<sup>5,6,7,8</sup>. This burden is enormous and cannot be borne by the parents of these children alone and so requires the intervention of government and non

governmental agencies.

The results show that pupils with trait of autism are not coping well in the present regular school system as 77.4% of the respondents said that such pupils perform below average in their academics. Accepted that there may be other contributory factors to this poor academic performance, there is an obvious association between the academic performance of these children and the present conventional teaching methods used in regular schools. Studies have shown that when these children are taught in special schools by specially trained teachers using the internationally reviewed methods such as the Applied Behavioural Analysis (ABA) which uses a one-on-one teaching approach that reinforces the practice of various skills, and The Treatment of Autism and Related Communication Handicapped Children (TEACCH), which uses picture schedules and other visual cues that help the child work independently and organize and structure his environment, they do better academically<sup>8</sup>.

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## Conclusion

In conclusion, this study has shown that; not all teachers who have heard of autism have the correct knowledge of it, that autism spectrum disorders do exist among primary school pupils in Yenagoa, the media and social network are important tools in creating awareness about autism and that autistic children are not coping with the present structure of the educational system.

## Recommended

In view of these findings the following are recommended;

1. The mass media, social media networks and school organised seminars should be used to increase the awareness of autism and other developmental disabilities among teachers in the state.
2. Teachers should be trained and retrained on how to handle the developmentally challenged child.
3. Scholarships should be provided for diagnosed autistics to fund their education and skills acquisition
4. Scholarships should also be awarded to professionals (Speech/Language therapist, Behavioural therapist, Occupational therapist, Researchers, Paediatricians) who want to further in the specialties necessary for the multidisciplinary management of the autistic child.
5. The Government should Fund research into autism and related disabilities.

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