

AWARENESS OF AUTISM AMONG TEACHERS AND HEALTH WORKERS IN AGAIE AND LAPAI LOCAL GOVERNMENT AREA OF NIGER STATE: COUNSELLING IMPLICATION.

Usman, I. G. (Ph.D)

Department of Counselling Psychology,

Faculty of Education and Arts,

Ibrahim Badamasi Babangida University, Lapai, Niger State

E-mail: usmanidris60@gmail.com Phone No: +234-701-292-8880

Abstract

This study dwelt in the enhancement of awareness of autism among teachers and health workers in Lapai and Agaie Local Government Areas of Niger State. The study sample carried 120 health workers and 80 teachers. The respondents were randomly selected from public primary and junior secondary schools within the two areas above. A modified version of the "Awareness about Autism among Health Workers and Teachers" (AAHWT) by Bakare, Ebigbo, Agonoh&Menkiti (2008) was modified and used to measure the awareness of the respondents on autism. A pre-test post-test was conducted which yielded reliability of 0.84 which was considered adequate for the study. A good number of respondents among teachers were not conversant with what constitute the disorder. Of the 2 hypotheses posed, the two showed that there were no significant differences at the 5% probability level, depicting, significant difference. Base on this, it was suggested among others that awareness campaign need to be intensified among teachers, parents and the communities to reach all nooks and crannies, nationwide. This is particularly to enable teachers especially as stakeholders, gain knowledge on autism as they are the next to parents as significant others in socialization and nurturing of children. This is aimed towards early diagnosis and intervention. Based on this premise, it is believed that creating awareness among teachers, parents and public, will curtail the problems and challenges of autistic children, which of course, will make them adjust and make necessary contributions in Nigerian society.

Keywords: Autism, Incidences of Autism, Therapy, Counselling Implication.

Introduction

Autism comes from latin word "autismus" which was coined 'autism' by a Swiss psychologist, Eugen Bleuler in 1910. He was said to have derived the name from the Greek word, 'autos' (meaning "self"), and used it to 'mean morbid self-admiration', referring to "autistic withdrawal of the patient to his fantasies, against which may influence from outside, becomes an intolerable disturbance" (Retter, 2005).

Autism, according to Wikipedia (2014), is a neurodevelopmental disorder characterized by impaired social interaction, verbal and non-verbal communication, and by restricted and repetitive behavior. It requires that symptoms become apparent before a child is three years old. It affects information processing in the brain by altering how nerve cells and their synapses connect and organize; how this occurs is not well understood. The genetics of autism are complex and it is strongly associated with a gene that cause birth defects. There

are other environmental causes such as heavy metals, pesticides or childhood vaccines. Autism had both genetics and environmental factors. These are explained accordingly:

Genetic problems: several different genes appear to be involved in autism spectrum disorder (ASD). For some children, it can be associated with a genetic disorder such as Rett syndrome or fragile 'x' syndrome, genetic changes may make a child more susceptible to autism spectrum disorder (ASD) 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. With regards to environmental factors, researchers are exploring whether such factors as viral infections, complications during pregnancy, or air pollutions play a role in triggering autism spectrum disorder (ASD). However, there is no link between vaccines and autism particularly, the measles-mumps-nubella (MMR) vaccine. Avoiding childhood vaccine can place your child in danger of catching and spreading serious diseases, including whooping cough (pertuses), measles or mumps. Four most challenging autism behaviours are sleep disruption, food sensitivity, meltdowns and aggression, coupled with, self injurious behaviour which is one of the devastating behaviour, exhibited by people with developmental disabilities (Gerber, 2009; Arndh, Stodgell & Rodier, 2005; Abraham & Geschwind, 2008).

The incidences and prevalence of autism in recent years has grown exponentially, and early interventions have been effective in helping autistic children develop behaviour patterns identical to those of normal children (American Academy of Child and Adolescent Psychiatric Association, 2000).

The prevalence of autism is about 1 – 2 per 1,000 people worldwide and it occurs four to five times more often in boys than in girls. Centre for Disease Control and Prevention (CDC) (2012) reported that 1.5% of children in United States (one in 68) are diagnosed with ASD as of 2014. A 30% increase from one in 88 in 2012. The number of people diagnosed with autism has been increasing dramatically since the 1980's, partly due to changes in diagnostic practice and government – subsidized financial incentives for named diagnoses. Parents usually notice signs in the first two years of their child's life. The signs usually develop gradually but some autistic children first develop more normally and then regress. Early awareness, behavioural, cognitive or speech interventions can help autistic children gain self-care, social and communication skills. This is the reason why this study was aimed at advocating awareness among teachers, parents and the public. Not many children with autism live independently after reaching adulthood, though some become successful. Parents continue to feel social stigma in situations where their autistic children's behaviour are perceived negatively by others.

2008 US study found a 14% average loss of annual income in families of children with ASD. Acquiring language before age six, having IQ above 50 and having a marketable skill, all predict better outcomes. A 2004 British study of 68 adults, who were diagnosed before 1980 as autistic children with IQ above 50 found that 12% achieved the high level of independence as adults. 10% had some friends and were generally in hope that require

some support. 19% had some independent but were generally living at home and needed considerable support and supervision in daily living. 4% needed specialist residential provision from facilities specializing in ASD with a high level of support and very limited autonomy and 12% needed high level hospital care. (Levy, Mandell & Schultz, 2009).

A 2008 Canadian study of 48 young adults diagnosed with ASD as pre-scholars found outcomes ranging, poor (46%), fair (32%), good (17%) and very good (4%), 56% of these young adults had been employed at some point, during their lives' mostly in volunteer, shelter or part time work. Worldwide awareness of autism becomes paramount and necessary intervention for autistic children can improve their lifestyles which can impact the development of overall society. Alas, the reason for this study.

Statement of the Problem

Johnson and Myers (2002) reported that about 10 – 15% autism cases have an identifiable Mendelian (single-gene) condition, chromosome abnormality or other genetic symptoms. Boys are at risk for ASD than girls. The sex ratio averages 4.3:1 but the cause of the difference is unconfirmed. The risk is greater with older fathers than with older mothers; two potential explanations are the known increase in mutation burden in older sperm, and the hypotheses that men marry later, if they carry genetic liability and show some signs of autism.

Anxiety disorders are common among children with ASD, ranging from 11% to 84%. Epilepsy due to age, language disorder, several metabolic defects and minor physical abnormalities, attention deficit hyperactivity disorder, are significantly increased in the autistic population. Sleep problems affect about two-thirds of individuals with ASD at some point in childhood which include symptoms of insomnia (difficulty in falling asleep), frequent nocturnal awakenings, and early morning awakening. Sleep problems are associated with difficult behaviours and family stress, and often a focus of clinical attention. (Levy, Mandell & Schultz, 2009). The risk of autism is associated with advanced stage in elder parent and with diabetes, bleeding, and the use of psychiatric drugs in the mother during pregnancy. Most professionals, believe that race, ethnicity and socio-economic status background, do not affect the occurrence of autism.

Knowledge or awareness of about childhood autism is low among teachers and the general community in Nigeria. Lack of awareness among teachers can compromise early recognition and interventions which had been known to improve prognosis in children with autism. Some parents of children with the disorder hide them for fear of being stereotyped. Some even went to the extent of terminating the lives of such children because they believed that the presence of such children in their families is a form of shame and stigma. With increased number of cases and parental concerns to help their children, the need to understand this disorder was heightened and has gained ascendancy. The number of children diagnosed with autism is on the crease globally (Abigail, Wuraola & Henry, 2014).

According to the Centers for Disease and Control (2012), an estimated 1 in 88 children are being diagnosed with an autism spectrum disorder (ASD) and the problems and assistance

to these children is very pertinent in any school system. Nigeria Autistic Society of Nigeria (2011) in Abigail, Wuraola & Henry (2014) found out that one in every hundred and fifty new born child is an autistic child and that early intervention, will enable them to adjust appropriately and make a living. Retter (2005) noted that ASD affect approximately 1 to 2% of the school age population and that without approximate intervention, these behaviours tend to persist across an individual's lifespan. The American Academy of Child and Adolescent Psychiatric Association (2010) espoused that, autism prevalence has grown exponentially and early interventions have been effective in helping autistic individuals develop behaviour patterns identical to those of normal children. Most often then not, teachers come across some of these children but because of their ignorance about this disorder, punish, scold, or ignore them, labeling them, "imbeciles", when they find their behaviour unacceptable. According to Stephen (2008), he stated that more autistic children are in public schools and so, the need for school personnel to have an insight as to what autism entails become essential. Lee (2014) reported that since mainstreaming is strongly being advocated, it becomes essential for schools to be aware of the knowledge of this disorder in order to help situate and integrate them with their peers. Though, unidentified environmental risk factors can not be ruled out. A number of reported cases of autism increased drastically in 1990s and early 2000s. This increase is largely attributed to changes in diagnostic practices, referral patterns, availability of services, age at diagnoses and public awareness.

Since many studies such as Johnson (2007), Levy (2009), The American Psychiatric Association (2010), Nigerian Autistic Society (2011) in Abigail, Wuraola and Henry (2014) have all confirmed in their various studies that most people are not aware of autism but have not studied the two areas (Agaie and Lapai) which this present study has undertaken, the work has also studied the level of awareness among teachers and health workers in these areas. Not only this, previous researches have studied only other locations but have not proffered the integrative counselling strategies as advocated in this paper. Thus, this current study is of unique importance. To achieve this is no any other time rather than now, to advocate, the awareness of autism among school teachers and the general public. Since advocacy campaign as inherent in this study, this type of media is one of the agents of advocating various counselling strategies. The aim of this paper is to enlighten, sensitize the general public especially teachers, so as to render necessary support to autistic children in various schools. Knowledge and awareness of autism among teachers will make teachers and parents to appreciate the nature of all autism, and its characteristics and to give necessary learning support and developmental needs to autistic children so that they can be useful to themselves and to contribute to the growth and development of the society. Hence, the reason for this paper.

Research Questions

1. What significant difference exist between the perception of health workers and teachers in their level of awareness of autism in Agaie Local Government of Niger State?

2. Is there any significant different between the perception of health workers and teachers in their level of awareness of autism in Lapai Local Government of Niger State?
3. Is there any counselling implication among health workers and teachers to enhance their awareness of autism?

Research Hypotheses

The following research hypotheses were formulated.

1. There is no significant difference between the perception of health workers and teachers in their level of awareness of autism in Agaie Local Government of Niger State.
2. There is no significant difference between the perception of health workers and teachers in their level of awareness of autism in Lapai Local Government of Niger State.

Methodology

Research Design: The research was a survey as it examined the existing variables as they exist.

Sample and Sampling: The random sampling approach was used. The sample selected for the study from the entire population (583) consists of 200 respondents. The statistical formula of Best (1981) was used to arrive at the choice of respondents.

Instrumentation: The test instrument on knowledge of childhood autism among health workers by Bakare, Ebigbo and Mekiti, (2008) was modified and used as "Awareness about Autism among Health Workers and Teachers" (AAHWT). Some items or statements of the questionnaire were sourced from internet search and intensively vetted by 2 experts in the department of counselling psychology, IBB University, Lapai. The test has good interval consistency which gave a value alpha 0.97. Although, this was reliable, it was used for teachers and health workers. As a result, a pre-test and post-test was conducted using health workers and school teachers. This yielded a reliability of 0.84 which was considered appropriate for the study. The instrument had two sections. Section "A" was on personal data of the subjects used while, Section "B" was presented as items or statements to which respondents were to respond appropriately, as they applied to them. Scoring was based on frequency count and percentages and were used to answer the research questions presented in table 1 – 2, the hypotheses were tested using the t-test analysis.

Table 1: Items on awareness of autism among teachers

S/N	Items on Awareness of Autism among Teachers	Freq (Yes)	%	Freq (%)	%
1	Autism is a disorder that inhibits normal development of infants and children in communication within the age of three	45	56.25	35	43.75
2	Autistic children refers to children who are affected by autism as a result of either pre-natal, perinatal, nature or nurture factors	45	56.25	35	43.75
3	Language development of an autistic children is abnormal	40	50	40	50
4	Autistic children lack facial expression with individuals	36	45.00	44	55.00
5	An evidence of eye contact is a characteristic of autism among children	38	47.25	42	52.50
6	Autistic children restrict their activities to limited area.	45	56.25	35	43.75
7	Autistic children relatively suffer severe learning problems	37	46.25	43	53.75
8	Children with autism are characterized by unusual speech patterns and unusual self exposed isolation	40	50	40	50.00
9	Lives of autistic children alternate between period of mystery and deep distress and fear	38	47.50	42	52.50
10	Autistic children can hardly stand on their feet, or slow in motor system and sometimes labeled as imbeciles	45	56.25	35	43.75
11	Psychologists discovered that although, autism can manifest very early in one's age, in some cases, autism is not diagnosed	37	46.25	43	53.75
12	Until the child begins school, autistic children have impairment of social interaction	39	48.75	41	51.25
13	Disorder or abnormality in children who suffer from autism are sometimes referred to as Autistic Spectrum Disorder (ASD)	38	47.50	42	52.50
14	If not addressed at early age with appropriate intervention, abnormal behaviours of autistic children tend to persist across their lifespan	36	45.00	44	55.00
15	Psychologists maintain that when autistic child is given attention and concern, a child may display an extraordinary talent in art, music or in another specific area	45	56.25	35	43.75
16	World Autistic Awareness Day introduced by United Nations is celebrated annually on 2nd April since 2008 to sensitize the world on this disorder in some children	40	50	40	50.00
17	The severity of autism varies widely from mild to severe, though they have problems with school adjustment, if they are cared for they may be able to live when they grow up	10	12.50	70	87.50
18	School teachers and health workers should assist autistic children, for them to adjust, function, and to participate in developing skills and competencies necessary to provide effective services	35	43.75	45	56.25
19	Positive attitudes of parents, teachers and health workers towards autistic children can promote successful inclusion for these children in their academic pursuit	40	50.00	40	50.00
20	Teachers, parents and health workers should make referrals to professionals such as psychologists, psychiatrists, psychotherapists etc. when the signs and symptoms are severe.	39	48.75	41	51.25

The table above reveals that only 45 (56%) are aware of autism while 35 (43.75%) are not aware of it. It is not therefore pleasing that the overwhelming majority of respondents are aware of autism or autistic children. From the responses above, it depicted that most teachers are not also aware of the characteristics or manifestations of autistic children; teachers responses also showed that they did not know how to manage or take special care of autistic children since they are not aware that they are children with needs. Only 10 – 39 (12.50% - 48.75%) are aware of this out of 80 (100%) respondents. It is significant to note that awareness of autistic children can make teachers to recognize, identify and assist the affected children at early age. Being school teachers, they are the next most important 'significant others' after parents as 'in loco-parentis', as children, spend most of their time in school. By identifying autistic children, if necessary assistance is given, it will go along way to make these children interact faster and will also improve their academic performance. This the reason why counselling strategies should be put in place such as orientation, enlightenment campaign and community based counselling so as to enlighten not only teachers but also parents and the community at large. Thus, the intent of this study is to advocate the awareness of diagnosis, treatment and prognosis of autism.

Table 2: Items on awareness of autism among health workers

S/N	Items on Awareness of Autism among Health Workers	Freq (Yes)	%	Freq (%)	%
1	Autism is a disorder that inhibits normal development of infants and children in communication within the age of three	120	100	0	0
2	Autistic children refers to children who are affected by autism as result of either pre-natal, perinatal, mature or nurture factors	120	100	0	0
3	Language development of an autistic children is abnormal	120	100	0	0
4	Autistic children lack facial expression with individuals	116	96.7	4	3.3
5	An evidence of eye contact is a characteristic of autism among children	120	100	0	0
6	Autistic children restrict their activities to limited area.	118	98.3	2	1.7
7	Autistic children relatively suffer severe learning problems	117	97.5	3	2.5
8	Children with autism are characterized by unusual speech patterns and unusual self exposed isolation	120	100	0	0
9	Lives of autistic children alternate between period of mystery and deep distress and fear	115	95.8	5	4.2
10	Autistic children can hardly stand on their feet, or slow in motor system and sometimes labeled as imbeciles	119	99.116	1	0.14
11	Psychologists discovered that although autism can manifest very early in one's age, in some cases, autism is not diagnosed	120	100	0	0
12	Until the child begins school. Autistic children have impaired of social interaction	120	100	0	0
13	Disorder or abnormality in children who suffer from autism are sometimes referred to as Autistic Spectrum Disorder (ASD)	120	100	0	0
14	If not addressed at early age with appropriate intervention, abnormal behaviours of autistic children tend to persist across an their lifespan.	119	99.116	1	0.14
15	Psychologists maintain that when autistic child is given attention and concern, a child may display an	120	100	0	0

	extraordinary talent in art, music or in another specific area				
16	World Autistic Awareness Day introduced by United Nations is celebrated annually the world on this disorder in some children	117	97.5	3	2.5
17	The severity of autism widely from mild to severe, though they have school adjustment, if they are care for they may be able to live when they grow up	116	96.7	4	3.3
18	School teachers and health workers autistic children for them to adjust, function, and to participate in developing skills and necessary to provide effective services	120	100	0	0
19	Positive attitudes of parents, teachers workers towards autistic children successful inclusion for these children pursuit	120	100	0	0
20	Teachers parents and health workers should make referrals to professionals such as psychologists, psychiatrists, psychotherapists	120	100	0	0

Table 2 above depicts that 115 (95.8%) and above out of 120 (100%) respondents (health workers) were aware of autism or autistic children. What this portends is that the rate of awareness has reached its apogee among the health workers, which is gratifying and impressive. However, health workers are only having casual contact with these children, they should also help autistic children when need arises and to intensify and revitalize awareness among community members.

Hypothesis 1: There is no significant difference between the perception of teachers and health workers on their awareness of autism among school children in Agaie local government.

Table 1: Shows t-test analysis of difference between the perception of teachers and health workers on their awareness of autism among school children in Agaie L.G.A.

Subjects	N	X	SD	df	t-cal	t-crit.
Health Workers	60	81.60	1.24	119		
Teachers	40	122.5	0.83	79	5.80	3.29

t-critical, 3.29 at 0.001 level of significance

t-cal, 5.80

since t-calculated is greater than t-critical, the hypothesis is rejected.

Hypothesis 2: There is no significant difference between the perception of teachers and health workers on their awareness of autism among school children in Lapai Local Government.

Table 2: Shows t-test analysis of difference between the perception of teachers and health workers on their awareness of autism among school children in Lapai L.G.A.

Subjects	N	X	SD	Df	t-cal	t-crit.
Health Workers	60	95.97	1.10	105		
Teachers	40	95.98	0.98	93	43.3	3.29

t-critical, 3.29 at 0.01 level of significance

t-cal, 43.3, since the t-cal is greater than t-critical, the hypothesis is rejected.

Discussion

From the findings of this study, the responses showed that most school teachers were not aware of autism but only few. For instance, table 1 indicated that only 45 (56.25%) out of 80 (100%) among the teachers identified themselves as having the knowledge of autism. The result also showed that from 10 (12.50%) to 39 (48.75%) respondents among the teachers indicated that they know the characteristics or manifestations of autistic children. Less than 40 (50%) out of 80 (100%) respondents showed that they can manage autistic children when ever they exhibit abnormal behaviours. This calls for revitalization and intensification of campaigns on autism so as to enlighten the populace more, particularly, teachers who deal with school children directly, early detection and management of autistic children.

The results from the first hypothesis showed that there was significant difference in the awareness of autism between health workers and teachers in Agaie Local Government as t-calculated 5.80, is greater than t-critical 3.29 at 0.001 level of significance. In the case of Lapai, the second hypothesis showed that there was significant difference in the awareness of autism between health worker and teachers because this points to the fact that the t-calculated 43.3, is greater than t-critical, 3.29 at 0.001 level of significance. In this case, the two hypotheses are rejected, meaning that the level of awareness of health workers and those of teachers are not the same.

The above findings lay credence to Bakare, Ebigbo, Agonoh and Menkiti (2008) whose studies confirmed that the generality of Nigerians and other sub-Sahara Africa are ignorant about autism. Also, the studies by Igwe, Bakare, Agomoh, Onyeama and Okonkwo (2010) and Bakare, Ebigbo, Agomoh and Menkiti (2008) disclosed that most people in Nigeria have a low level of knowledge and awareness about autism spectrum disorders in Africa, thereby compromising early recognition of the disorder and intervention, to alleviate symptom severity.

Counselling Implication

The American Academy of Child and Adolescent Psychiatry Association (2012) submitted that it is paramount for educators and educationists to be aware of autism because appropriate specialized counselling and treatment provided early in life, can have a positive impact on the child's development and can produce an overall reduction in disruptive behaviours and symptoms. Since teachers are directly dealing children, the key to successful intervention is having knowledge and understanding of autism so as to give them necessary support. This can be achieved by demonstrating empathy, understanding assistance and concern regarding the needs of autistic children. These children need a comprehensive evaluation and specialized behavioural and educational programmes. Abigal, Wuraola and Henry (2014) in their studies reported in their studies on why teachers should have knowledge and awareness of autistic children and discovered that some children of this category need medication and that treatment planning is complex and since each child has different strengths and deficits, early detection and provision of necessary treatment, or prophylactic approaches can improve the child's adaptive skills and functioning. Hence, revitalization and enhancement counselling strategies on awareness and knowledge of autism among the general public becomes significantly important so as to actualize equity and equality of opportunities among Nigerian citizens as stipulated in the Nigerian national policy, the constitution and in the new policy guidelines of inclusive education.

In view of the findings, it becomes necessary that since teachers were found not to have adequate knowledge about autism, school counselors should organize advocacy campaign strategies to give talk in school assemblies, and to give orientation to teachers. Resource persons should be invited such as medical personnel to enlighten teachers and parents, so that autistic children are given necessary assistance, particularly, learning support programmes. Community-based counselling through the media, the use of P.T.A. forum and family counselling (to autistic family) should also be employed. By so doing, these approaches are capable of enhancing awareness of autism, enhancing communication and interaction of autistic children and active participation in various activities. In addition to the above strategies, Applied Behavioural Analysis (ABA) therapy can equally be adopted.

American Academy of Child and Adolescent Psychiatry Association (2000) confirmed the effectiveness of Applied Behaviour Therapy (ABA). Therapy ABA therapy was first developed in the 1970s by psychologists, Ivar Lovaas and Robert Koegel at the University of California at Los Angeles (UCLA). It is firmly entrenched in learning theory research which found that, a behaviour can be reshaped or modified if it is rewarded, it is mostly likely to be repeated. In ABA treatment, the therapist gives the child a motivator such as a question or a request to sit down along with the correct response. The therapist uses attention, praise or an actual incentive like toy or food (snacks) to reward the child for repeating the right answer or completing the task. In a landmark, 1987 studies by Lovaas and Koegel found that nearly half (47%) of the children who received 40 hours per week of ABA therapy were eventually able to complete normal first grade classes and achieved normal intellectual and educational functioning by the end of first grade. While none of the children who received the therapy for only 10 hours per week were able to do the same. Other researchers have partially replicated Koegel and Lovaas's success, among them, psychologist James Mulick, Ph.D, of

Ohio State University, who found an association with a form of ABA therapy, calls early intensive behavioural intervention and improvement in children's IQ scores. Such promising results lead to Munick and other supporters of intensive behaviours intervention to suggest that it should be available to all children.

Video modeling is another behaviour modification and socialization strategies which teaches skills, where autistic children are to repeat the words in the conversational speech, verbal responding, helping behaviours and purchasing skills. These increase vocabulary, understanding of objects, daily living skills by showing models, toys and actions. Characteristics such as temper tantrums, crying, non-compliance in attention, fidgeting, staring can be mitigated or eradicated, particularly, when verbal reward is applied as a reinforcer.

Conclusion

This study ventured in to enhancing awareness of autism among teachers and health workers in Agale and Lapai local government areas. It gave a snapshot of the meaning, causes, characteristics, diagnosis and learning support needed to help and assist autistic children and why it is paramount for teachers to seek the knowledge of autism as the study discovered that most teachers investigated did not have the knowledge of autism. The study discovered the rate or level of awareness among health workers was higher than those of school teachers, it is paramount to sensitize teachers on the knowledge of autism as they spend more time with children than parents and even health workers in carrying out educational programmes with these children in schools. Therefore, patience, empathy, tolerance and understanding should be the spirits to be imbibed by teachers so as to make autistic children attain maximum support and academic achievement in order to enable them to develop themselves and the nation.

Recommendations

From the above findings, this study proffers the following recommendations viz a viz:

- (i) School counsellors should intensify and enhance awareness of autism and autistic children among teachers, parents and the general public so as to identify their psycho-social problems and how to address them.
- (ii) Counsellors should give talks on autism in the school assembly to emphasize the need to support them at all levels.
- (iii) Counsellors should employ community-based counselling, mobilize community members and to sensitize them on the need to identify autistic children and to highlight them on the necessity to accept the nature of autistic children and to make sacrifice in giving all the necessary support for them to equally develop socially, morally, academically, and economically.
- (iv) Special schools for autistics need to be established within designated government schools where professionals and para-professionals can carryout special educational programmes appropriate to their needs and satisfaction.
- (v) Resource persons, such as health workers, who are found to be knowledgeable about autistic children, to give talk on how to identify autism among children and how to address their psycho-social, academic, moral and developmental needs.

- (vi) School counsellors should use various media, including Parents' Teachers' meetings as a forum, to enhance the awareness of parents and teachers on the learning support and developmental needs of autistic children.

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