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SOCIO-DEMOGRAPHIC VARIABLES AND ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) AMONG PRIMARY SCHOOL PUPILS IN BONNY ISLAND LGA OF RIVERS STATE

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ABSTRACT: *This study investigated Socio-Demographic Variables and Attention Deficit Hyperactivity Disorder among primary school Pupils in Bonny Local Government Area of Rivers State. The investigation was guided by three specific objectives, research questions and hypotheses. The study used a descriptive research design and 250 school pupils were used as the sample size. An instrument known as Socio-Demographic Variables and Attention Deficit Hyperactivity Disorder Questionnaire (SADHDQ) was used for data collection. The instrument for data collection had reliability index of 0.68. ANOVA and independent t-test were used for analysis of data. The result revealed that there is a significant influence of gender, birth order and socioeconomic status on Attention Deficit Hyperactivity Disorder among primary school Pupils in Bonny Local Government Area of Rivers State. Based on the findings the study recommends that primary school teachers in Bonny LGA should be trained on how to find out variables that could influence Attention Deficit Hyperactivity Disorder in children and refer the pupils/patients as timely as possible.*

KEYWORDS: Attention Deficit Hyperactivity Disorder, Gender, Birth Order And Socioeconomic Status.

INTRODUCTION

Human conduct mostly falls within a range with some behaviour being mutual, some uncommon, some satisfactory, and some outside tolerable limit. Children develop at dissimilar rates and have diverse behaviours, and personalities. Some children get anxious, behave thoughtlessly, and fight to focus at a given time or another. Occasionally, these factors may be misguided for Attention Deficit Hyperactivity Disorder. The (American Psychological Association, 2015) defines attention deficit hyperactivity disorder as a social condition that makes concentration on everyday demands and routines thought-provoking. Among the widespread disorder symptoms in children, attention deficit disorder is the one that endures or stays all through puberty and maturity. Signs include physical exertion, staying focused and attention, and inability to control behaviour. Attention Deficit Hyperactivity Disorder usually surface in life, normally between the ages of 3 to 6. The symptoms are always different from individuals. This however makes it very difficult to be detected. Some parents often find out that their children do not develop interest in some things faster like other children. While for teachers, when a child has issues in adhering to classroom instructions and at other places that is when the symptoms begin to manifest in the child.

Attention Deficit Hyperactivity Disorder is one of the most studied concept of the childhood psychiatric disorders in both the psychosocial and medical works as well as the most common neurobehavioural disorder of childhood (American Academy of Child and Adolescent

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Psychiatry, 2017). Attention Deficit Disorder (ADHD) puts forward an important consequence on peer rapport and academic performance of the child. It also has enormous psychosocial influence on parents and the society at large (Harpin, 2005).

According to Silver (1992), such children manifest behaviour such as low self-esteem, unending failure in school and social skills inadequacy which can cause some adolescent antisocial behaviour such as use of drugs and alcohol, and act of stubbornness which could lead to these children dropping out of school. He further maintains that if Attention Deficit Hyperactivity Disorder is not detected and handled earlier in them, it can lead to adolescent disruptive behaviours Uwe (2000) and Agbu, Nnachi and Eze, (2003) were of the view that if these issues are not identified and solved, it might cause some of them to be a problem to their friends, parents, teachers and even to themselves. They can become unfocused, make careless mistakes and be unable to finish a task. Attention Deficit Hyperactivity Disorder can cause learning deficiency that might lead to the teachers punishing and bullying their pupils as defined in the 4th Edition of the Diagnostic and Statistical Manual of Mental Disorders (2002) without certainly understanding the difficulties these students may be going through in the act of earning. For Attention Deficit Hyperactivity Disorder to be detected, all the conditions listed in the Diagnostic and Statistical Manual of Mental disorder 4th edition (DSM IV) (2002) must be reached and a child will be observed for at least six months both at home and in school.

Sometimes, because of Attention Deficit Hyperactivity Disorder in pupils, teachers might neglect and overlook them or see it as inability of the parents to teach and train the child in the right way or better still look at the child as an irresponsible child, make jest of them causing some of their classmates to avoid them (Nadou & Dixion, 1993). In some studies on attention hyperactivity disorder that had been carried out in Nigeria to ascertain the prevalence of attention deficit disorder most of the results came out significant. Some of such studies were conducted by Egbochukwu and Abikwi, (2007) and Skounti, Philalithis and Galanakis, (2007) on children with attention hyperactivity disorder in rural communities. They reported that boys have more prevalence to ADHD than girls of the same age. The results came out significant that socio demographic variables are associated with attention hyperactivity disorder. Sale and John, (2014) also carried out such research in Northern Nigeria. The result shows that some of the socio demographic variables are indeed associated with Attention hyperactivity disorder. It has also observed that several variables such as family birth order, socio-demographic, pre-natal, nutritional, age and school variables have been connected with attention hyperactivity disorder (ADHD) in both clinical and community samples of children.

Gender is the variety of features relating to and distinguishing between male and female. Conditional on the context, these features are likely to include the act of being masculine, feminine or intersex. While Birth order as the name implies is the classification and ordering of a child or children according to how he/she or they is/are born. In birth order, a child could be the first, second, middle, last, twins or only child. Socioeconomic status refers to an economic and sociological collective measure of one's work experience, one's or family's economic and social location when compared with others with regards to education, occupation and income (National Centre for Educational Statistics, 2008).

Attention hyperactivity disorder has become a common childhood behavioural disorder that can disturb a child's success in school and interpersonal relationships. It is a common disorder occurring in children before the age of seven and it is often characterized by insistent

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from of distraction and hyperactivity impulsivity that is regularly exhibited. However, it has been observed that some children find it difficult to adhere to instruction, some are rowdy and loud, while some will just decide to be quiet uninvolved with other kids. Some also cannot stay still, they like to run around and squirm in their seats even when they are forced to stay still. And when some of these children go outside their homes and even at homes, they find it difficult to control themselves, especially at the market places, stores, churches, or even supermarket. They like to attract too much attention to themselves by making so much noise not minding where they are. The child climbs windows during classes, he cannot sit still, he daydreams, fidgets, looses focus on activity in class as soon as it began. This makers the class teacher to become, angry, less focused, frustrated and stressed up or has a great risk for substance misuse. People outside may somehow see it as parents improper training. Most of the times, parents feel embarrassed maybe with the way the child is being repeatedly ask to put things down in the supermarkets and some other places.

The researcher deemed it necessary to examine some socio-demographic variables such as, gender, birth-order, and socio economic status that can cause ADHD among primary school pupils in Bonny LGA of Rivers State.

Aim and Objectives of the Study

The study aimed at investigating socio-demographic variables and Attention Deficit Hyperactivity Disorder (ADHD) among primary school pupils in Bonny L.G.A, Rivers State. In specific terms the study examined,

1. The influence of gender on attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State.
2. The influence of birth order on attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State.
3. The extent to which socio-economic status influences attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State.

The following research questions guided the study;

1. What is the influence of gender on attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State?
2. What is the influence of birth order on attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State?
3. What is influence of socio-economic status on primary school pupils' attention deficit hyperactivity disorder in Bonny Island LGA of Rivers State?

The following null hypotheses, formulated and tested at 0.05 alpha level guided the study;

1. Gender does not significantly influence attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State.
2. Birth-order does not significantly influence attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA of Rivers State.

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3. Socio-economic status does not significantly influence attention deficit hyperactivity disorder in primary school pupils Bonny Island LGA of Rivers State.

METHODOLOGY

The design for this study is descriptive research design. Hence, it described the likely socio-demographic variables that could likely influence attention deficit hyperactivity in primary school pupils in Bonny, Rivers State in order to examine the influence of socio-demographic variables associated with attention hyperactivity disorder.

The population of the study consisted of all the primary school pupils in the 21 government primary schools in Bonny Island (Local government council) which is 5,949. This population was appropriate as it would help in getting the required number of pupils for the study.

A sample size of 250 was randomly selected from the study population. This was done by selecting 5 pupils each from basic 1 to 5 in the 10 primary schools who have symptoms of attention hyperactivity disorder as stated in American Psychiatric Association 2002, Diagnostic Manual of Mental Disorder (DSM-IV).

The instrument for data collection was an adapted Questionnaire from American Psychiatrics Diagnostic and Statistical Manual of Mental Disorder (DSM-IV) (2002), which was divided into section A and B. section A has 5 questions that covers the socio-demographic variables such as gender and birth order while section B has 30 items that covers the symptoms of attention deficit hyperactivity disorder. The instrument therefore has 35 questions. The 30 questions which covers the symptoms of Attention Deficit Hyperactivity Disorder were all structured in a four point scale of Very much, Pretty much, Just a little and Not at all. Some of the items in the scale were positively structured while others are negatively structured, hence, the instrument has a maximum score of 120 and a minimum score of 30.

The content validity of the instrument was ascertained by two experts in Measurement and evaluation to assess its relevance to the work. Responses to the questionnaire items were collated and analyzed using Cronbach alpha and a reliability coefficient of 0.68 was obtained.

The research questions were analyzed using mean (x) and standard deviation (SD). Independent t-test was used in hypotheses 2 while one way ANOVA was used to test hypotheses 2 and 3.

RESULTS

The results of data analysis are shown in the tables below;

Research Question 1: What is the influence of gender on attention deficit hyperactivity disorder in primary school pupils in Bonny LGA of Rivers State?

Hypotheses 1: Gender does not significantly influence attention deficit hyperactivity disorder in primary school pupils in Bonny LGA of Rivers State.

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Table 1: Independence t-test showing the influence of gender on attention deficit hyperactivity disorder in primary school pupils in Bonny LGA.

					t-crit result	
Gender	N	$\bar{x}$	S.D	Df	calt	Sig Value
Male	111	38.26	10.39	248	.933	.032
Female	139	37.08	9.60			

The results in table1 showed that, males had a mean of 38.28 (N = 111) and SD of 10.39, while female had a mean of 37.08 (N = 139) and SD of 9.60. From the result, the mean and standard deviation scores of the males are higher than the scores of their females counterparts. This shows that the influence of ADHD is higher in the males than in the females. A further and critical look at the same table showed that the t-calculated value of .933 obtained was significant at 0.05 level of probability (P = 0.032∠0.05). Based on this confirmation therefore, the hypothesis of no significant influence of gender on attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA is rejected.

Research question 2: What is the influence of birth order on attention deficit hyperactivity disorder in primary school pupils in Bonny LGA of Rivers State?

Table 2: A descriptive analysis of the influence of birth order on pupil's attention deficit hyperactivity in Bonny LGA of Rivers State.

	N	$\bar{x}$	S.D
1st Child	79	36.52	9.26
Middle Child	66	39.15	10. 65
Last Child	52	39.10	9.85
Twins	41	34.59	10.05
Only Child	12	40.08	8.56

Table 2 showed the influence of birth order on the Attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA of Rivers State. The table contains the descriptive statistics of the variables. From the table, birth orders of first child (N=79), middle child (N=66), last child (N=52), twins (N=41) and only child (N=12) have their mean and standard scores respectively as 36.52, 39.15, 39.10, 34.59, 40.08 and 9.26, 10.65, 9.85, 10.05 and 8.56 respectively. A critical look at the table shows that only child has the highest mean followed by the middle child, the last, twins and finally the first child. From this, it is was concluded that the ADHD symptom is higher with the only child.

Hypotheses 2: Birth order does not significantly influence Attention deficit hyperactivity disorder in Bonny Island LGA of Rivers State.

Table 3: ANOVA table

	Sum of squares	Df	Mean Square	F	Sig
Between Groups	814.203	4	203.551	2.090	.013
Within Groups	23861.593	245	97.394		
Total	24675.796	249			

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From the ANOVA table, there was a statistically significant influence of birth order on attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA since F (2,245 = 2.090, *p* =.013). Hence, the null hypothesis which states that birth order does not significantly influence the attention deficit hyperactivity disorder of primary school pupils in rejected and the alternative accepted.

Table 4: Multiple comparisons of the influence of birth order on attention deficit hyperactivity disorder of primary school pupils in Bonny LGA.

(I) Birth. Order	(J) Birth. Order	Mean Difference	(I-Std. Error J)	Sig.	95% Confidence	
					Lower Bound	Upper Bound
1st Child	Middle Child	-2.63253	1.64575	.029	-7.1554	1.8903
	Last Child	-2.57717	1.76233	.018	-7.4204	2.2661
	Twins	1.93362	1.89955	.847	-3.2867	7.1540
	Only Child	-3.56435	3.05762	.771	-1.9673	4.8386
Middle Child	1st Child	2.63253	1.64575	.499	-1.8903	7.1554
	Last Child	.05536	1.82993	1.000	-4.9736	5.0844
	Twins	4.56615	1.96243	.140	-.8270	9.9593
	Only Child	-.93182	3.09707	.998	-9.4432	7.5796
Last Child	1st Child	2.57717	1.76233	.588	-2.2661	7.4204
	Middle Child	-.05536	1.82993	1.000	-5.0844	4.9736
	Twins	4.51079	2.06117	.188	-1.1537	10.1753
	Only Child	-.98718	3.16056	.998	-9.6730	7.6987
Twins	1st Child	-1.93362	1.89955	.847	-7.1540	3.2867
	Middle Child	-4.56615	1.96243	.140	-9.9593	.8270
	Last Child	-4.51079	2.06117	.188	-10.1753	1.1537
	Only Child	-5.49797	3.23908	.437	14.3996	3.4037
Only Child	1st Child	3.56435	3.05762	.771	-4.8386	11.9673
	Middle Child	.93182	3.09707	.998	-7.5796	9.4432
	Last Child	.98718	3.16056	.998	-7.6987	9.6730
	Twins	5.49797	3.23908	.037	-3.4037	14.3996

From the multiple comparisons table above, there is a significant influence of age between first child and middle child (p=.029) and first child and last child (p=.018) on attention deficit hyperactivity disorder of primary school pupils. This implies that in birth order, first child, middle child and last child have influence on the attention deficit hyperactivity disorder of primary school pupils. However, there were no significant influence of middle, last, twins and only children since their significant levels are higher than 0.005 alpha level.

Research Question 3: What is the influence of socioeconomic status on attention deficit hyperactivity disorder in primary school pupils in Bonny Island LGA Rivers State?

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Table5: Descriptive statistics of the influence of socio-economic status on ADHD

	N	$\bar{x}$	S.D
High SES	44	41.30	10.01
Middle SES	66	36.30	10.29
Low SES	140	37.06	9.57
Total	250	37.60	9.95

The results in table 5 showed the descriptive statistics of socio-economic status of pupils. From the table, pupils with high socio-economic (N=44) had a mean and standard deviation scores of 41.30 and 10.01 respectively, middle socio-economic status (N=66) had a means score of 36.30 and a standard deviation of 10.29 while pupils from low socio-economic status (N=140) had a mean score of 37.06 and a standard deviation of 9.57. From the result, the mean score of pupils from high socio-economic status is higher, implying that children from this high socio-economic status have higher attention deficit symptoms than their counterparts.

Hypothesis 3: Socio-economic status does not significantly influence Attention deficit hyperactivity disorder on primary school pupils in Bonny Island LGA.

Table 6: ANOVA table showing the influence of socio-economic status on the attention deficit hyperactivity disorder of pupils in Bonny

	Sum of squares	Df	Mean Square	F	Sig
Between Groups	753.155	2	376.577	3.888	.022
Within Groups	23922.641	247	96.853		
Total	24675.796	249			

From the ANOVA table, there was a statistically significant influence of socio-economic status on attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA since F (2,247) = 3.888, p = .022). Hence, the null hypothesis which stated that socio-economic status does not influence the attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA is totally rejected while the alternative hypothesis which states that socio-economic status influence attention deficit hyperactivity disorder was accepted.

Table 7: Multiple comparisons of the influence of socio-economic status on attention deficit hyperactivity disorder of pupils in Bonny Island LGA

(I) Socio-economic status	(J) Socio-economic status	Mean Difference	(Difference -Std. Error (I-J)	Sig.	95% Confidence Lower Bound	Upper Bound
High SES	Meddle SES	4.99242*	1.91538	.029	.3756	9.6092
	Low SES	4.23831*	1.70088	.040	.1385	8.3381
Middle SES	High SES	-4.99242*	1.91538	.029	-9.6092	-.3756
	Low SES	-.75411	1.46945	1.000	-4.2961	2.7878
Low SES	High SES	-4.23831*	.70088	.040	-8.3381	-.1385
	Middle SES	.75411	1.46945	1.000	-2.7878	4.2961

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It is evident from the table above that there is a significant difference in the ADHD pupils from the high socio-economic status (p=.029) and socio-economic status (p=.040) as well as in the pupils from low socio-economic status as (.029). Conversely, there were no differences between pupils from middle and low socio-economic statuses.

DISCUSSION OF RESULTS

Given the result in table 1, it was proven that the influence of ADHD is higher among the males than their female counterparts. Also, the t-calculated value obtained was significant at 0.05 level of probability (P= 0.032<0.05). This confirmation led to the rejection of the null hypothesis. This result however supported that there is an influence of gender on the ADHD of primary school pupils. This is supported by Ambuabunos, Ofovwe and Ibadin (2011). They were of the view that attention deficit hyperactivity is higher in the males than in the females. This is also supported by (Venkata, & Panicker, 2013). For them, gender influences the attention deficit hyperactivity disorder in primary school pupils. They also maintained that it is higher among the males than the females. Also, Gaub and Carlson cited in Miller, (2005) provided evidence that the symptoms of attention deficit hyperactivity disorder is higher in boys than in girls, hence, boys are more diagnosed with ADHD than girls. (Greene, Biederman, Faraone, & Montenaux, in (Miller, 2005), opined that females have less potential to display disorderliness, depression, anxiety and emotional behaviours. Maybe because the symptoms are not detected in girls not until middle school or later in life when social, academic and the desire for autonomous functioning increase. Contrary to this, (Edward, Angela, and Boma, (2015) revealed that the females have higher attention deficit hyperactivity disorder than the males.

From table 2, the result explained that influence of ADHD symptom is higher with the only child. While from the ANOVA table 3, there was a statistically significant influence of birth order on the attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA since, p =.013 is less than .05). Hence, the null hypothesis which states that birth order does not significantly influence the ADHD of primary school pupils is rejected and the alternative accepted. The result further confirmed that the influence of ADHD is higher among the first, middle and only children.

Contrary to this result, (Itai and Noorit, 2009) opined that though birth order does not actually influence attention deficit hyperactivity disorder in children, it is higher among the first children, middle children, only children and last children.

The result in table 5 showed the descriptive statistics of socioeconomic status of pupils. From the table, pupils with high socioeconomic status is higher, implying that children from this socio-economic have ADHD more than the others. From table 6 also, the ANOVA table showed a statistically significant influence of socioeconomic status on attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA F (2,247) = 3.888, p = .022). Hence, the null hypothesis which stated that socioeconomic status does not influence the attention deficit hyperactivity disorder of primary school pupils in Bonny Island LGA is totally rejected while the alternative hypothesis which states that there is significant difference accepted. The result also confirmed that children from high and low socioeconomic status show higher influence of attention deficit hyperactivity disorder.

To support this evidence, (Morgan, 2009) was of the opinion that socioeconomic status affect children's behavior, especially, children who are from lower status or categories. He

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maintained that these children are about two times backwards than those from higher status in displaying learning-related behaviour issues. A child's socio-economic status is also associated with the child's attention, interest, disinterest, and lack of teamwork in school. Contrary to this result, Venkata, and Panicker, (2013) opined that socioeconomic status influence attention deficit in children. He went further to confirm that the incidence of attention deficit is higher in children from low socio-economic status, and children from middle socio-economic status.

CONCLUSION

The study concludes that gender, birth order and socio-economic status are socio-demographic variables that influence attention deficit hyperactivity disorder (ADHD) among primary school pupils in Bonny Island LGA.

RECOMMENDATIONS

Based on the findings of the study the researchers recommended that;

1. Primary school teachers in Bonny L.G.A. should be trained on how to manage or teach children with ADHD.

2. Teachers, guidance counselors and others are encouraged to consult publications and inventories meant for For identifying and treating ADHD and to create awareness to parents of children that do not know about the disorder.

3. The school and classroom environment should be structured to accommodate the needs of pupils with ADHD.

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