



Therapeutic Impacts of Igbo Indigenous Art for Nigerian Children with Attention Deficit Hyperactivity Disorder (ADHD)

**Dr. Nkem Fortyunes Alu, Dr. Jovita Charles Ogu, Mr. Malise Turba Dateba,
Dr. Sukanthy Visagapperumal Egharevba & Dr. RitaDoris Edumchieke Ubah**

Affiliations:

- 1 **Dr. Nkem Fortyunes Alu,**
Lecturer in Visual Art Hermeneutics & Education, ,
Department of Fine and Applied Arts,
University of Nigeria, Nsukka.
- 2 **Dr. Jovita Charles Ogu,**
Lecturer in Art Education,
Department of Fine and Applied Arts,
Alvan Ikoku Federal College of
Education,
Owerri, Nigeria.
- 3 **Mr. Malise Turba Dateba**
Lecturer in Art Education,
Department of Fine and Applied Arts,
Federal College of Education,
Pankshin,
Plateau State, Nigeria
- 4 **Dr. Sukanthy Visagapperumal Egharevba,**
*Lecturer in Painting, 2-Dimensional Design
& Creative Explorations,*
Department of Visual Arts and Technology,
Cross River University of Technology,
Calabar, Nigeria.
- 5 **Dr. RitaDoris Edumchieke Ubah,**
Lecturer in Textile Design and Art History,
Department of Fine and Applied Arts,
University of Nigeria, Nsukka.

Corresponding Author:

Dr. Nkem Fortyunes Alu
nkem.alu@unn.edu.ng

Abstract

Children with Attention Deficit Hyperactivity Disorder (ADHD) are foci in this study whose objectives were to ascertain: (i) the extent to which Igbo indigenous art chores can curtailed, (ii) the most suitable Igbo indigenous art forms for elongating attention span, (iii) the cogent bases for prescribing indigenous art for basic schooling, and (iv) the art chore most likely to sustain the attention of ADHD kids. 100 kids were treated to; body drawing/painting; hairstyling; fabric weaving; basketry; bead/crochet making, and pottery. The study instruments were: Attention Deficit Hyperactivity Disorder Specialist Intervention Curriculum (ADHD-SI-C); Attention Deficit Hyperactivity Disorder Specialist Intervention Methodology (ADHD-SI-M) and Attention Deficit Hyperactivity Disorder Specialist Intervention Span Rating Table (ADHD-SI-SRT). Attention rating calibrations were: 1-15 minutes (short span) and 16-30 minutes (long span). The results showed that of all the chores, basketry and ceramics elongate attention the most. Art is prescribed for ADHD because of its kinesthetic nature.

Key words: Attention deficit, intervention, indigenous art, additive processes.

1. Introduction

So many attempts have been made at defining the condition in which an individual is habitually distracted by external or internal drives, thereby being hardly focused on a task. Attention Deficit Hyperactivity Disorder (ADHD) is a general name given to all the manifestations of easy distraction by an individual. ADHD is not caused by any other disorder, and is mostly characterized by inattention, impairment in task execution. The Cognitive Solutions Learning Centre (2022) defined Attention Deficit Hyperactivity Disorder (ADHD) as a chronic condition that affects millions of children and often persists into adulthood. Knopf et al (2012) averred that children with ADHD lack concentration, do not complete assignments, forget things easily, and have poor writing and study skills.

Goldstein (2017) opined that ADHD may be hard to diagnose since many of its symptoms may be put down to normal childish behavior. Occurring three times more often in boys than girls, ADHD is generally, first noticed between the ages of three and six, with seven being the average age when an official diagnosis is made. Goldstein (2017) asserted that since girls with ADHD seem to internalize their symptoms, appearing withdrawn and attentive but not disruptive, they were often able to function more successfully in the classroom. From the foregoing ADHD is not only associated with hyperactivity but also introversion, as the case is with some girls. It is not therefore abnormal to see an ADHD child who is not hyperactive but all the same, showing signs of attention shortfall.

From an Igbo philosophical parlance attention shortfall is generally branded as bad character, not a developmental deficiency. It is assumed that the power to focus on an on-going task is intrinsically under the control of the individual concerned, for that reason. Igbo cosmology prescribes parental or adult control over a child who is yet to overcome the 'childishness' of attention inconsistency.

2. Major Origins and Settlements of the Igbo People

Occupying majorly the South-Eastern part of Nigeria are the Igbo people, one of the most populous single tribes in Africa. Highly enterprising and artistic, *ndi Igbo* (Igbo people) are known for very strong survival and expansion instincts anywhere in the world. The uninhibited survival instincts of the Igbo people have been attributed to natural impetus for competition in arts, technology and trading. The Igbo language is a consubstantiation of various sub-dialects that slightly differ in tones from one home front to another.

Before the British colonial rule in the 20th century the Igbo were a politically fragmented group, with a number of centralized chiefdoms such as Nri, Arochukwu, Agbor and Onitsha (Miers & Roberts, 1988). The Igbo land according to Agugu (2006) is between the latitude of 5° C and 8° C in the Eastern part of "Greenwich line" of the River Niger". He reiterated that the Igbo land has over land mass of "50, 641 sq. km", (15, 800 sq mile) and that a lot of cultures exist in Igbo land as well as different dialects, which is very important for day to day communication.

Igbo land is the home of the Igbo people and it covers most of Southeast Nigeria. This area is divided by the Niger River into two unequal sections-the eastern region (which is the largest) and the Midwestern region. The river however has not acted as a barrier to cultural unity; rather it has provided an easy means of communication in an area where many settlements claim different origins (Slattery, 2016; Chigere, 2000).

Igbo people are a tribe which speaks the Igbo language in Nigeria. They are mainly found in Anambra, Enugu, Abia, Imo and Ebonyi States. They are also found in Aniocha and Ika areas of Delta State. The people of Igbo can as well be found in some parts of Rivers and Akwa - Ibom States (Udechukwu & Nyigide, 2016).

They think we are too scattered to know our ancestral oneness and origin, one thing they don't know is that every Igbo man knows the way to his father's compound and by extension his original homeland. Migrations and trade apart, we are one big Igbo family (I. Kanu, personal communication, September 15, 2019). The assertion by Pa Kanu of Asaga Arochukwu is one of many such challenging the Eurocentric belief that Igbo people have disjointed administrative systems in places they live, as opined by Miers & Roberts (1988) above.

In the words of Afigbo (1975) the origins of the Igbo people has been the subject of much speculation, and it is only in the last fifty years that any real work has been carried out in this subject. They are anxious to discover their origin and reconstruct how they came to be where they are. It is expedient in the context of this study to survey some of the myriads of claims concerning the origin of the Igbo race:

3. The Nri and Aguleri Claims

From Anambra state come the Nri and Aguleri declarations about the origin of the Igbo. While Aguleri insists on the rite of Igbo paternity, Nri, reportedly with the Igbo *Ofo* insists on the same claim. According to Ukandu (2014), it was Eze Obidiegwu Onyeso, the traditional ruler of Nri who started the argument when he said that his community is the origin of the Igbo. Shortly after, Aguleri debunked it, saying Onyeso ought to know the truth because he had to visit Aguleri before his coronation in 1988 to receive blessing as Igbo custom demanded

of him. On the grounds that Aguleri was reportedly the first son of Eri who migrated from Egypt, a common ground exists on both claims; both Aguleri and Nri people claim that they migrated from Egypt. But Nri people insist that their patriarch settled in the present Nri first, when Nri the son of Gad, the son of Jacob, the son of Isaac, the son of Abraham arrived the place. Onyeso clarifies that a man called Eri (who later became the father of the Igbo) lived in Egypt and was the special adviser on religious matters to the 5th dynasty of Pharaohs. Story has it that when Eri and his family traveled south and came down the tributary of the river Niger and Benue known as *Ezu na Omambala*, Agulu the last son of Eri who was a fisherman dwelt by the seaside while his siblings resettled elsewhere. It is also believed that the *ofon di Igbo* is still in Nri with the Eze Nri till date. Slight variations on the Nri and Aguleri claims also abound.

4. The Isu and Ama Igbo Claims

The Isu and Orlu people in Imo state also claim ancestral beginnings to the Igbo race from the vantage point that they are very populous and occupy an adjoining stretch of land from the centre of the Igbo land, expanding to all directions. Thus the Isu people, probably drawing inspiration from the very long expanse of harmonized Igbo cultural settlements, claim that the first Igbo structure originated from them.

The analysis of the sources that are available (fragmentary oral traditions and correlation of cultural traits) have led to the belief that there exists a core area of Igbo land, and that waves of immigrant communities from the North and West planted themselves on the border of this core area as early as the 9th century. This core area; Owerri, Orlu and Okigwe, forms a belt, and the people in this area have no tradition of coming from anywhere else. Migration from this area in the recent past tended to be in all directions (Slattery, 2016).

From the assertion of Slattery and others in this line of thought, it is understandable why the Owerri, Orlu and Okigwe axis don't attach migration to their claims of Igbo origins. They rather claim that other Igbo settlements stretched out from them. In the Orlu section of Isu there is also the land of *Ama Igbo* (Home of the Igbo) story, the supposed first settlement of the Igbo. History also has it that from Ama Igbo in Orlu, lots of crafts, blacksmithing and agriculture spread among the Igbo people. Speculations had it that the progenitors of Ama Igbo spread the Igbo arts and crafts till it got to and established in Igbo Ukwu.

5. The Owerri Claim

While the Owerri view suggests that the Igbo people originated from the Umuahia and Owerri axes, there have not been very strong evidences to back up this claim. It however leans on the Isu/Orlu/Ama Igbo claims.

6. The Awka Claim

The Awka outlook seems to predicate upon the Nri claim. Still developing and expanding from the Omambala and Ezu rivers axes, the Awka claim justifies that they came down to their present abode because expansion and population growth necessitated it. Some versions of oral history say that Owerri people stretched or migrated from the Awka belts of Igbo settlement.

7. The Arochukwu Claim

Edeh (1985) stated that another group of the Igbos which has a strong probability of outside origin is the Arochukwu. Testifying to this, Frank Hives, a district commissioner in Nigeria wrote in 1905; *the Aros were quite a different racial type from the indigenous habitants of the country*. He also hypothesized that because the Aros were light in colour, they must have been among the people associated with the descendants of Phoenician colony that had settled on the lower Congo in a very distant past and had intermarried with the natives. Edeh (1985) also posited that the best that can be said about Hives' view is that it represents an intelligent guess because in general the Igbos are usually lighter in colour than the neighbouring ethnic groups of Nigeria. It appears that while the Arochukwu and its axis' claims do not lean on migration from any specific place, it has the establishment of slave trade posts whose civilizations birthed some Igbo communities today, as background.

In divulging the Nri and Aguleri claims, Ukandu (2014) states that almost all Anambra State people, parts of Delta State and parts of Enugu State people are from Arochukwu and Bende slave trading outposts created by slave warriors from Aro, Abiriba, Ohafia, Abam, Uzuakoli, Afikpo, Isuikwuato, Ohaozara, Okigwe, Umuahia, Ngwa, Ijaw, Annangs, Ibibios, Efik and Okirika slave raiding warriors, and these towns and communities were the strongest people in war and economic power this time from the 15th century till the abolition of slavery and British conquest of Arochukwu power around the 18th century. The Aro side of the Igbo ancestry claims, therefore pulls from the undisputed Aro confederacy (slave trade posts) angle.

8. The Nomenclature and Supremacy-Associated Claims

There exists another angle to the various claims, the angle of names and 'other names'. Examples of such 'other names' or 'direct names' are; *Ama Igbo* (The Igbo cradle, outset, enclave or settlement), *Igbo Ukwu* (The

big, senior or greater Igbo) *Igbo Eze* (Igbo of the Kings or Kingly Igbos) and *Aro oke Igbo* (Aro the Male, Preferred, Superior or Greater Igbo). Such names seem to have been drawn from the claims of Igbo patriarchic supremacy, migrations or self-evolution.

The African people attach great importance to the names of things and persons, their origins and meanings. To them, nothing is said to exist until that thing is named. Names are not just abstract terms couched in indefiniteness; they are not mere labels. But they are pregnant with meaningful and symbolic importations (Awolalu & Dopamu, 1979).

In African countries as in Igbo land, the names given to a child are not randomly selected by guessing or by research work carried out on names, but by careful selection by the parents based on certain experiences of their lives (Ekwealor, 1998).

Edeh (2007) posited that there is a stronger probability for the tradition that the Igbos did not migrate from outside but rather they developed independently like other indigenous African peoples. The archaeological finds of Professor Thursten Shaw of the Institute of African Studies, at the University of Ibadan, and Professor Hartle of the University of Nigeria at Nsukka, and the researches of Dr. Onwuejeogwu, an Igbo ethnologist, are of great importance in determining the weight of the ancient origin hypothesis.

In crediting some Igbo communities with migration from somewhere Leonard (1968) stated that it seems evident that the Onitsha-Igbo had a Bini origin. He also reports Thomas (1914) as having stated in his anthropological report that Onitsha people were located some miles from Isele-Ukwu for some time before they were driven out by the forces of Benin. Okafor (1994) submits that migration theories have become more widespread and strongly held in recent decades. Many of the migrations (like the Isu movement) have historical authenticity.

9. ADHD Testing and Psycho-Educational Evaluation

Exposing children early to culture-based tasks can help a great deal to build their concentrations skills. Whether in school or at home art is a vital tool for the testing and treatment of what is globally known as Attention Deficit Hyperactivity Disorder (ADHD). Psychomotor activities are good for generating equitable psycho-educational evaluation and prescriptions for kids on and off-school. But in evaluating the attention span of kids, especially in the contemporary dispensation, care must be taken to decide in line with specific research objectives, whether school or home evaluation is preferred. The point here is that both school and home evaluations are psycho-educational in nature.

In postulating why they combined both parents and teachers disruptive behavioral disorder rating scales in their study Oke et al (2019) submitted that researches in different parts of the world done used either teachers' or parents disruptive behavioural disorder rating scale (DBDRS) to arrive at ADHD prevalence, but non used both parents and teachers' DBDRS simultaneously to diagnose ADHD, stating that both were combined so they could accurately determine the prevalence of ADHD among primary school children in Ile-Ife, Nigeria.

The above combo structure as adopted by Oke et al (2019) was suitable because of the very formalistic scope of their study. Different researches have different foci, mostly because of environmental differences. But for the current study we adopted an evaluation scope that is neither teacher nor parent-led but off-school and outsider-intervention based, the 'outsiders' being the researchers. In playing the specialist intervention strategic roles the study was researcher-led, art-based and kids-reaction dependent.

10. Igbo Art and Culture as Baseline for Attention Deficit Therapy

Iron works, wood carving, pottery, weaving and mud sculpture constitute the main Igbo crafts. Carvers produce utensils like pestle and mortar, ritual bowls and objects, musical instruments, canoes, doors and posts, staff of office and masks. The people of Lejja, Awka, Ariba, Agulu-Umana, Nkwere (Nkwele Opi Egbe) and Aguleri are skilled workers in iron, and some have foundries dating back several centuries. Their blacksmiths produce farming implements, hunting spears, weapons of offence and defence like; guns, knives, and various sizes of ogene (clapperless bell). The people of Akwette, parts of Ngwa, the Northern parts of Igbo land and Western Niger Igbo are good weavers in cotton and produce a variety of highly priced cloths (Okafor & Emeka; 1998).

Okafor & Emeka (1998) further postulated that pottery is women's occupation but sculpture is not. Sculptors produce the mud ceremonial thrones of titled people, ritual mud sculpture of the shrine, and the highly ethnographic Mbari statues of the area around Naze in Owerri. These crafts, according to Okafor & Emeka (1998) are highly practiced mainly in Inyi, Ekulu, Abakaliki, Aba, Okigwe, Oha, Anam, Olu Mba n'asaa, Nsugbe, Afikpo and parts of Nsukka where much of Igbo land gets her household vessels and ritual bowls.

ADHD has its natural therapy embedded in the various Igbo art cultures, for human interactions.

Goldstein (2017) averred that ADHD kids seem to internalize their symptoms, appearing withdrawn and attentive but not disruptive. Some Igbo cultural aspects that are applicable to ADHD situations for elongating or correcting attention deficiency are enlisted below:

	ADHD Subtype	Igbo Culture Applicable	Art Aspect involved
1	Extroverted	Ikpa nkata (basket weaving)	(Visual art) embroidery, weaving, latching
2	Extroverted	Ikpa Nzu (white chalk body and mural painting)	(Visual art) body painting, mural and make up
3	Extroverted	Iwa Akwa (knitting of local panties and fabrics)	(Visual art) textiles, fashion and make up
4	Extroverted	Ikpa ute (Mat weaving)	(Visual art) embroidery, weaving, latching
5	Introverted	Igba mgba (wrestling)	(Performing art) acrobatics, choreography, dance
6	Introverted & extroverted	Igu nwa aha (child naming ceremony)	(Performing art) dance and oration (Visual art) chalk make-up, costuming
7	Extroverted	Ikpa akwa (fabric weaving)	(Visual art) weaving, embroidery, latching, crocheting.
8	Extroverted	Ike isi or ikpa isi (hair braiding or plaiting)	(Visual art) weaving, embroidery, carving, latching
9	Extroverted & Introverted	Ipi osisi (wood carving)	(Visual art) wood carving, mask carving, utensil etching and joinery
10	Extroverted & Introverted	Iru ulo aja oto (traditional mud architecture)	(Architecture) building and roofing (Visual art) brick making, wattle wall making, thatch weaving, beam staking
11	Extroverted & Introverted	Ide uri aja (wall plastering and painting)	(Visual art) Mural painting and motif making
12	Introverted & extroverted	Iti mmonwu (masquerading)	(Performing art) dance and carnival (Visual art) wood carving, panting, fashion, adornment, make up.
13	Extroverted	Ikpu ihe (moulding/sculpting)	(Visual art) clay and wax moulding
14	Extroverted	Ikpu ite (pottery)	(Visual art) ceramics, firing and glazing
15	Introverted & extroverted	Iru mgbede (fattening room/bridal outings)	(Performing art) dance, carnival, oration, singing (Visual art) make up, costuming, body adornments
16	Extroverted	Ite uri (make up art)	(Visual art) make up and body painting
17	Introverted	Igboto mma (traditional retirement)	(Performing art) dance, choreography (Visual art) make up, fashion, textile
18	Introverted & extroverted	Ilu nwanyi (marriage)	(Performing art) dance, carnival, chorography, oration (Visual art) embroidery, fashion, textile, make up, ceramics
19	Introverted & extroverted	Ite egwu (dance)	(Performing art) dance, choreography (Visual art) make up, textile, fashion, body adornments
20	Extroverted	Ikpu uzu (blacksmithing)	(Visual art) Iron smelting, carving, etching, engraving
21	Introverted & extroverted	Igba ofala (king's royal outing)	(Performing art) dance, carnival, chorography, oration (Visual art) embroidery, fashion, textile, make up, wood carving, blacksmithing
22	Introverted & extroverted	Ichi echichi (coronation or title taking)	(Performing art) dance, carnival, chorography, oration (Visual art) embroidery, fashion, textile, make up, wood carving, blacksmithing
23	Introverted	Igbu azu (fishing)	(Performing art) fishing (Visual art) embroidery, fashion, textile, make up, wood carving, iron blacksmithing
24	Extroverted	Ipi ugbo (canoe and boat carving)	(Visual art) wood carving and joinery
25	Extroverted	Ikpa udo (rope weaving)	(Visual art) weaving and embroidery

Fig 1: ADHD subtypes with suitable Igbo Art and Culture intervention categories

11. The Problem

Whereas a myriad of attention deficit conditions among children in contemporary Nigeria can, by popular nomenclature, be generally grouped into the ADHD class, it is good to note that the possible causes of the problems are as many as there are subtypes. The basic problem is that irrespective of the influence of modernity most contemporary parents still hold the indigenous cosmological mindset that attention and concentration shortfalls among physically healthy children are handiworks of witches and wizards. It is this thought pattern that also nudges them to take such children to prayer houses and churches for spiritual deliverance, after the child must have been severally bad-mouthed for being indolent, foolish or even mentally sick. On the side of teachers, most children have been branded un-teachable, incorrigible and generally slow because of ADHD. While the teachers strive to use formal pedagogies to raise children with sharp instincts, in which modern art and crafts are componential aspects of syllabus, they sometimes jettison some cultural practices considered dirty or fetish but kinesthetically mind-involving, art inclusive. In all of the above, only an insignificant number try to proffer psychomotor exercises that may engage the brain of a child with the aim to redirect or elongate attention.

12. Materials and Methods

Study Design

The explanatory mixed methods design was adopted for the study but it is principally arts-based. McNiff (1998) defined art-based research as the systematic use of the artistic process, the actual making of artistic expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people they involve in their studies. Baden & Wimpenny (2014) further defined art-based research as research that uses the arts, in the broadest sense, to explore, understand, represent and even challenge human action and experience. George (2022) stated that mixed methods research combines elements of quantitative research and qualitative research in order to answer your research question. Mixed methods can help you gain a more complete picture than a standalone quantitative or qualitative study, as it integrates benefits of both methods. George (2022) clarified that in an explanatory sequential design, your quantitative data collection and analysis occurs first, followed by qualitative data collection and analysis. He buttressed that ‘you should use this design if you think your qualitative data will explain and contextualize your quantitative findings’. He further stated that the mixed methods are less tied to disciplines and established research paradigms. According to Thomas (2020), in non-equivalent group design, the researcher chooses existing groups that appear similar, but where only one of the groups experiences the treatment. The instruments bore tabulated guides that aimed at generating numeric data which were later analyzed qualitatively.

13. Participants and Sample Size Determination

With the help of their parents 520 holiday making children were assembled at Nsukka for the intervention.. From the initial population (N=520) there was a randomization exercise to arrive at a sample size of 211. From (n=211) the treatment group constituted 100 pupils while the control group constituted 111. All the apparently healthy and physically fit children who were also within the age ranges of 6-11 were included. Members of the control group were not treated to the artistic interventions. For the demographic illustration, see the participants’ eligibility criteria below:

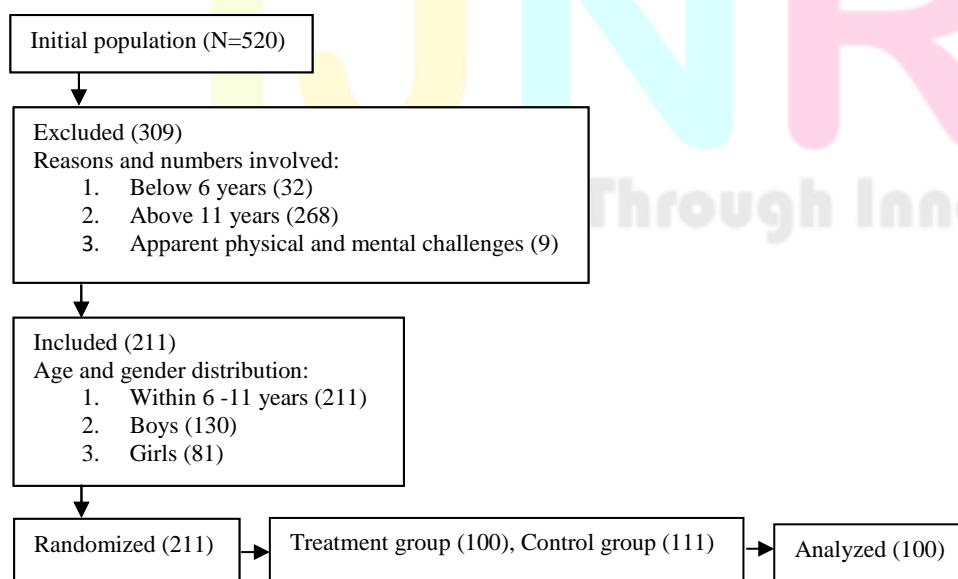


Fig 2: Participant Eligibility Criteria

14. Study Instruments

The first instrument was the intervention art chores syllabus designed by the researchers and branded: Attention Deficit Hyperactivity Disorder Specialist Intervention Curriculum (ADHD-SI-C). It was specifically designed as the intervention content guide. The ADHD-SI-C contains outlined Igbo indigenous chores as follows: Week 1 & 3: (i) Body drawing/painting, (ii) hairstyling, (iii) fabric weaving, and then Week 2 & 4: (iv) basketry, (v) bead/crochet making, and (vi) ceramics/pottery. The ADHD-SI-C was designed to ensure that the art chores assigned to Week 1 were repeated in week 4, for attention span re-check purposes, just as week 2 got repeated in week 4. See appendix 2.

The second instrument was the Attention Deficit Hyperactivity Disorder Specialist Intervention Methodology (ADHD-SI-M). It contains all the particulars of intervention procedures, namely: (i) intervention duration, (ii) days (iii) art chores, (iv) chore duration, (v) chore stages and sub duration, (vi) chore sub-stages, (vii) AS chore stages cumulative remarks, (viii) means of data collection, (ix) type of data sought (x) methods of indigenous Igbo art intervention, (xi) art media and materials. See appendix 3.

The third instrument was the Attention Deficit Hyperactivity Disorder Specialist Intervention Span Rating Table (ADHD-SI-SRT). For 30 minutes each of the Igbo indigenous art chores was tested for attention span under the *theory, preparing materials*, and practical stages. At the terminal end of the 6 selected ADHD-SI-SRT art chores is the column for cumulative ratings: SAS (Short attention span), VSAS (very short attention span), LAS (long attention span), and VLAS (very long attention span). The ADHD-SI-SRT elucidated the levels of change among the number of the kids that responded along the binary checks (short attention span; 1-15 minutes, and long attention span; 16-30 minutes). See appendix 4.

15. Test of Reliability of Instruments

The Attention Deficit Hyperactivity Disorder (ADHD) Intervention instruments were designed by the researchers, then pilot-tested for reliability and approved by 5 experts in the Art Education section of the Department of Fine and Applied Arts, University of Nigeria, Nsukka.

10. Research Objectives and Questions

The objective of the study was to explore the resultant effects of using Igbo indigenous art chores as agents of therapy among Nigerian ADHD children. The following specific research questions guided the study:

1. To what extent can Igbo indigenous art chores curtail ADHD to improve concentration among children?
2. What are the Igbo indigenous art forms most suitable for elongating attention span among children?
3. What are the cogent bases for prescribing indigenous art as vital in basic school curriculum design?
4. Which of weaving and additive art processes is likely to keep the attention of ADHD kids more?

16. Study Scope

In Nsukka, Enugu State Nigeria, children within the Nigeria early primary school ages of 6-11 were the subjects of treatment. Basic Igbo indigenous family and community art chores were the independent variables.

17. Ethical Consideration

All the ethics of conducting group studies of this kind, as applicable to the Department of Fine and Applied Arts, University of Nigeria, were observed and duly followed. Parents of the children were formally consulted through their school teachers and they gave their permissions for their kids to participate in the study.

18. Conflicts of interest

There were no conflicts of interest among the researchers.

19. Funding

There was no external funding for this study. The researchers funded the research totally.

20. Author Contributions

All the authors contributed to the study through the: concept, design of instruments, pilot study and field work stages. Adjustments were also agreed upon by all.

21. Results

The intervention yielded observable results as recorded on the tables below. Each table bears data responses to 2 research questions, and discussed thereafter.

Table 1:

Data spread on (RQ1) the extent to which Igbo indigenous art chores can curtail ADHD to improve concentration among children, and (RQ2) the Igbo indigenous art forms most suitable for elongating attention span among children. (n=100)

Art chores	WEEK 1 (R/Q No: 1)						WEEK 2 (R/Q No: 2)						CR	
	Mon Body drawing/ Painting		Wed Hairstyling		Fri Fabric weaving		Mon Basketry		Wed Bead/ Crochet making		Fri Ceramics/ Pottery			
Duration	30 mins		30 mins		30 mins		30 mins		30 mins		30 mins			
AS code/CR	-	+	-	+	-	+	CR	-	+	-	+	-	+	CR
Sub duration	1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins		1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins	
Stage 1 Theory	78	22	84	16	64	36	SAS	72	28	100	0	88	12	VSAS
Stage 2 Preparing materials	38	62	12	88	21	79	LAS	40	60	36	64	15	85	LAS
Stage 3 Practical	13	87	0	100	8	92	VLAS	0	100	5	95	0	100	VLAS

Key: AS (attention span), Mins (minutes) SAS (short AS), VSAS (very short AS), LAS (long AS), VLAS (very long AS), RQ (research question), CR (cumulative remark) +(positive) – (negative)

Source: Nkem Fortynues Alu et al (Research 2022)

Data on the week 1 side of table 1 reflects the extent to which the stipulated Igbo indigenous art chores can curtail ADHD to improve concentration among children. At the theory stage *Body drawing/painting* had 78 kids lasting between 1-15 minutes of attention while 22 lasted 16-30 minutes, a sign that a vast majority had short attention, but during the preparation of materials for the practical 38 kids had short attention span while 62 lasted longer; an improvement on the results of the theory stage. During the practical proper only 13 showed short attention span while a whopping 87 lasted between 16-30 minutes.

Hairstyling which included barbing, plaiting and weaving processes had 84 kids on the short attention span side (1-15) whereas 16 lasted long (16-30 minutes) during its theory stage. When it was time to prepare materials for practical there was a significant leap: 12 (1-15 minutes) and 88 (16-30 minutes). Yet during the practical all 100 kids lasted beyond the short attention span cadre. *Fabric weaving*, at the theory stage had 64 kids on short attention (1-15 minutes) and 36 (16-30 minutes). During preparation for practical only 21 were left on the short attention span side while 79 lasted long. The number improved a lot more during the practical proper with only 8 on the short attention span side and 92 concentrating between 16-30 minutes. The cumulative data remark shows that all the theory stages polled noticeable short attention span; the preparation of art material for the practical generated more interest and polled long attention span but the practical stage polled very long attention span.

To determine the Igbo indigenous art forms most suitable for elongating attention span among children the second week data showed as follows: *Basketry* at the theory stage polled 72 kids on the short attention span side while 28 lasted long. While the art materials were being prepared 60 were showing short attention span and 40 improved. But during the practical all 100 kids lasted between 16-10 minutes. *Bead/crochet making* had all 100 kids losing attention between 1-15 minutes but when it was time to prepare materials for the practical 64 lasted between 16-30 minutes leaving only 36 behind. However during the practical only 5 showed short attention span whereas a whopping 95 lasted long. On *Ceramics/pottery* 88 showed non-affirmative attention, then only 12 lasted long at the theory stage. The preparation for practical stage only 15 lasted between 1-15 minutes; 85 showed the long attention span range of 16-30. However the practical stage polled all 100 kids to the long attention span side. In the second week all the theory stages showed very short attention span, the preparation for practical, long attention span, and the practical stage, very long attention span, meaning that the Igbo indigenous art forms most suitable for elongating attention span are *basketry* and *ceramics/pottery* whose practical sections polled 100 kids (16-30 minutes long attention span) apiece, followed by *bead/crochet making* with 95 kids (16-30 minutes).

Table 2:

Data allocation on (RQ3) the cogent bases for prescribing indigenous art as vital in basic school curriculum design, and (RQ4) Which of weaving and additive art processes is likely to keep the attention of ADHD kids more. (n=100)

Art chores	WEEK 3 (R/Q No: 3)						WEEK 4 (R/Q No: 4)							
	Mon Body drawing/ Painting		Wed Hairstyling		Fri Fabric weaving		Mon Basketry		Wed Bead/ Crochet making		Fri Ceramics/ Pottery			
Duration	30 mins		30 mins		30 mins		30 mins		30 mins		30 mins			
AS code/CR	-	+	-	+	-	+	CR	-	+	-	+	-	+	CR
Sub duration	1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins		1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins	
Stage 1 Theory	88	12	80	20	55	45	SAS	85	15	81	19	90	10	VSAS
Stage 2 Preparing materials	35	65	10	90	14	86	LAS	30	70	11	89	4	96	LAS
Stage 3 Practical	0	100	0	100	2	98	VLAS	20	80	0	100	0	100	VLAS

Key: AS (attention span), Mins (minutes) SAS (short AS), VSAS (very short AS), LAS (long AS), VLAS (very long AS), RQ (research question), CR (cumulative remark) +(positive) – (negative)

Source: Nkem Fortyunes Alu et al (Research 2022)

Figuring out the cogent bases for prescribing indigenous art as vital in basic school curriculum design was the task in the 4th week with the chores of the 1st week repeated. During the theory stage body *drawing/painting* had a whopping 88 kids losing attention below and at 15 minutes leaving 12 to stay out the rest of the time. When it was time to prepare materials for the practical, it was 35 (short attention span) and 65 (long attention span). During the practical stage all 100 kids had a long attention span of 16-30. The theory stage of *hairstyling* recorded 80 (short attention span) and 20 (long attention span) but the preparation of materials for the practical had only 10 showing short attention span while 90 lasted long. During the practical proper all 100 lasted long. During the theory stage of the *fabric weaving* chore a near even distribution of frequency occurred with 55 on short attention and 45 on long attention span. But the full difference showed during the practical with only 2 showing short attention span and 98 lasting between 16-30 minutes. The result shows that the practical stage of *body drawing/painting* and *hairstyling* polled the entire population to the long attention span side whereas that of fabric weaving score a relative of 98, all showing that the practical nature of art as cogent bases for prescribing it as vital in basic school curriculum design

In the 4th week *basketry, bead/crochet making and ceramics* were engaged a second time with a different purpose; to find out between weaving and additive art processes which one is likely to keep the attention of ADHD kids more. The theory stage of basketry had 85 kids on the short attention span side and only 15 on the long side. During the preparation of materials those on the long attention span side rose to 70 kids, leaving only 30 behind on the short attention side. However the full practical polled 20 kids (short attention span) and 80 (long attention span). During the theory stage of bead/crochet making 81 kids’ attention did not last long, while 19 did. The preparation of materials for the practical however, polled a distant 89 (long attention span) and 11 (short attention span), the full practical polled all hundred kids lasting between 15 minutes and 30. Ceramics/pottery polled at the theory stage, a whopping 90(short attention span) and 10 (long attention span), at the preparation for practical there was a sharp switch with only 4 remained behind at the short attention span side while 96 lasted long. Just like bead/crochet making all 100 kids lasted long. See table 2.

22. Discussion

Findings show in summary, that the stipulated Igbo indigenous art chores can curtail ADHD to a very large extent. Of the selected intervention chores *basketry* and *ceramics/pottery* apiece, were the Igbo indigenous art forms most suitable for elongating attention span, followed by *bead/crochet making*. The practical stage of *body drawing/painting* and *hairstyling* polled the maximum affirmative score whereas *fabric weaving* polled next, showing that the cogent bases for prescribing art as vital in basic school curriculum design is the practical nature of art. It was also discovered that *bead/crochet making* and *ceramics/pottery* being additive process laden successfully withheld the kids' attention for long, but not at the theory stage. While *Basketry*, a weaving process oriented craft was also positively responded to, it did not sustain attention quite as long as the additive art processes of *bead/crochet making*, and *ceramics/pottery*. The dominant rating stage for each week was the *practical*. Attention was however first noticeably triggered at the second stage; *gathering and preparing materials for practical*. The practicality of Igbo indigenous art forms can curtail ADHD because they deeply engulf children's cognitive and kinesthetic potentials. For therapy Igbo indigenous art is recommended for contemporary teachers and home care givers, but theory must be considerably de-emphasized.

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APPENDICES

Appendix 1

Holyday Time Specialist Interventions on Kids with
Attention Deficit Hyperactivity Disorder (ADHD),
May03, 2022

Dear Teacher/Parent,

REQUEST FOR PARTICIPATION

We are a team of academics presently conducting a study on the topic: **Therapeutic Impacts of Igbo Indigenous Art Practice for Nigerian Children with Attention Deficit Hyperactivity Disorder (ADHD).**

We hereby implore you to permit the involvement of your children/pupils as *research subjects* for the 4-week study, in which they will be treated to selected Igbo indigenous art chores for the comparative estimation of attention span.

We believe that as a teacher/parent you can volunteer to help us locate and assemble the children for the exercise, and also serve as *research assistant*. We promise to keep to time each day and also, provide all the art media required for the exercise. All other information about us and the exercise are contained in the project syllabus attached herewith.

We anticipate your kind response and guardian participation. Thanks.

.....
Dr. Nkem Fortyunes Alu
(For the group)



Appendix 2

Attention Deficit Hyperactivity Disorder Specialist Intervention Curriculum (ADHD-SI-C)

	Monday			Wednesday			Friday		
WEEK 1	Body drawing/painting			Hairstyling			Fabric weaving		
	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical
WEEK 2	Basketry			Bead/Crochet making			Ceramics/Pottery		
	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical
WEEK 3	Body drawing/painting			Hairstyling			Fabric weaving		
	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical
WEEK 4	Basketry			Bead/Crochet making			Ceramics/Pottery		
	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical	Theory	Preparing materials	Practical

Source: Nkem Fortyunes Alu et al (Research 2022)



Appendix 3*Attention Deficit Hyperactivity Disorder Specialist Intervention Methodology (ADHD-SI-M)*

Intervention subjects/ classification	WEEK 1& 3			WEEK 2& 4		
	Mon	Wed	Fri	Mon	Wed	Fri
Art chores	Body drawing/ painting	Hairstyling	Fabric weaving	Basketry	Bead/Crochet making	Ceramics/ Pottery
Chore duration	90 minutes per Igbo indigenous chore					
Chore stages and sub duration	(1) Theory (30 minutes), (2) Preparing materials (30 minutes), (3) Practical (30 minutes)					
Chore sub-stages	(1)1-15 minutes (-), and (2) 16-30 minutes (+)					
CR	(1) SAS, (2) LAS, (3) VSAS (4) VLAS					
Means of datacollection	Observation, timing and reording					
Type of data sought	Attention Span (AS) measured in minutes, and number of kids within each sub duration					
Methods of Igbo indigenous art intervention	(1) Theory (lecture/discussion method) (2) Preparing materials (discussion/demonstration method) and (3) Practical (demonstration method)					
Art media and materials	Relevant Igbo indigenous art media and materials obtainable within the environment					

Key: AS (attention span), Mins (minutes) SAS (short AS), VSAS (very short AS), LAS (long AS), VLAS (very long AS), RQ (research question), CR (cumulative remark) +(positive) – (negative)

Source: *Nkem Fortynes Alu et al (Research 2022)*



Appendix 4

Attention Deficit Hyperactivity Disorder Specialist Intervention Span Rating Table (ADHD-SI-SRT)

	WEEK 1 & 3 (R/Q No:)						WEEK 2 & 4 (R/Q No:)							
	Mon		Wed		Fri		Mon		Wed		Fri			
Art chores	Body drawing/ Painting		Hairstyling		Fabric weaving		Basketry		Bead/ Crochet making		Ceramics/ Pottery			
Duration	30 mins		30 mins		30 mins		30 mins		30 mins		30 mins			
AS code/CR	-	+	-	+	-	+	CR	-	+	-	+	-	+	CR
Sub duration	1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins		1-15 mins	16-30 mins	1-15 mins	16-30 mins	1-15 mins	16-30 mins	
Stage 1(f) Theory	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Stage 2(f) Preparing materials	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Stage 3(f) Practical	....	....	....	....	....	....	....	....	....	....	....	....	....	....

Key: AS (attention span), Mins (minutes) SAS (short AS), VSAS (very short AS), LAS (long AS), VLAS (very long AS), RQ (research question), CR (cumulative remark) +(positive) – (negative)

Source: Nkem Fortynes Alu et al (Research 2022)

