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Articles and Statements

Teaching Children with Albinism in Nigerian Regular Classrooms: An Examination of the Contextual Factors

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Abstract

The visual and dermatological conditions of children with albinism (CWA) demand that special attention is given to them to enable them to cope with their studies and daily living. In spite of the fact that they have equal intellectual abilities with their counterparts, a good number of them perform poorly in school and are likely to drop out of school. This study examined the belief/knowledge of teachers and educational practices adopted in Nigerian public secondary schools for CWA. One hundred and six (106) teachers from 12 secondary schools in Anambra State that teach CWA participated in the study. Major findings showed that regular classrooms were not albinism-friendly with regards to the provision of facilities; a good number of the respondents had faulty beliefs and poor knowledge about albinism, and teachers reported that they adopted albinism-friendly instructional and assessment practices. Teachers encountered a number of challenges in teaching CWA such as inadequate instructional facilities, difficulty getting their classmates to accept them in class and inadequate time to attend to them. There was no significant difference in the hypotheses tested except in the school location and instructional practices of teachers. Based on these, recommendations and limitations of the study were highlighted.

Keywords: Albinism, Assessment Practices, Children, Inclusion, Instructional Practices, Nigeria, Regular Classroom, Teaching.

Introduction

CWA are considered as special needs children, given the fact they have low vision and dermatological conditions that affect their general wellbeing (Ashley, 1992; Lund, 2001). Albinism is often associated with visual problems resulting from nystagmus (involuntary eye movements) and photophobia, squinting and astigmatism which are congenital and lifelong, although not progressive (Lynch, Lund, 2011). Their lack of melanin exposes them to problems that are physiological and socio-psychological in nature (Lund, Gaigher, 2002). At the plane of physiological problems, they are vulnerable to skin cancer and eye problems (Phatoli et al., 2015) while at that of socio-cultural and psychological problems, they are stigmatized, discriminated against, dehumanized, and sometimes maimed (Ikuomola, 2015; Lund, Gaigher, 2002). Although

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some authors have stressed that there is a controversy about whether albinism is a disability or not (Mswela, 2018), it is considered a disability in Africa (Ojedokun, 2018).

Globally, the international community is making efforts to make sure that no child is left behind in accessing quality education (Rieser, 2012). These efforts have led to serious advocacy for all-inclusiveness in the school setting (Walton, 2018). In many developing nations, inclusive education has not been implemented in such a way that children irrespective of race, gender and abilities can benefit maximally from educational programmes (Global Partnership for Education, 2018). Research has shown that in most developing nations, schools are inaccessible for persons with disabilities (Drame, Kamphoff, 2014; Yarfi et al., 2017). Many of them have been excluded from schools because of the perceived difficulties in handling them. Some CWA have reported that in school, they are treated like outcasts, bullied and avoided by their peers (Lund, 2001). This implies that CWA are among persons with disabilities that are neglected and most of the time excluded in schools in Africa (Franklin et al., 2018).

Africa has a high incidence of albinism with estimates of prevalence ranging from one in 5000 to one in 15,000 (Frankline, Lund, 2017; Phatoli et al, 2015) with approximately 6 million persons living with albinism in Nigeria out of which 40% are children (Federal Ministry of Education, 2012). It must be noted that in Africa, statistics on the number of persons living with albinism vary from the report of one body to the other because there are insufficient epidemiological studies documenting persons with albinism (Frankline, Lund, 2017). In Nigeria and Africa as a continent, a number of researches have been conducted on the experiences of CWA (Pooe-Monyemore et al., 2012), and beliefs and stereotypes on albinism (Phatoli, et al, 2015; Bradbury-Jones et al., 2018), psychological challenges and coping strategies of persons with albinism (Nzelwa, 2016), health and education of persons with albinism (Lund, 2001), and violence against and displacement of persons with albinism (Ntetema, Ash, 2014). Nonetheless, there has been a research gap in looking at how CWA are instructed and assessed in the classrooms and the challenges teachers face in classrooms while teaching CWA.

Lynch and Lund (2011) recommended that information about albinism and strategies to improve the education and wellbeing of CWA should be disseminated across Sub-Saharan Africa given the fact that there is a high incidence of albinism, general misconceptions, and insufficient training of teachers in handling such cases. In Nigeria, it appears that there is little research evidence exists on the education of CWA in schools even though Nigeria came up with the first National Policy on Albinism in 2012 (Federal Ministry of Education, FME, 2012). This document tried to specify how CWA should be educated in a regular classroom taking into considerations their unique needs in the learning environment. For proper education of these children, there is a need to investigate what goes on in schools where they are mainstreamed. For example, there are no special schools for them in Nigeria. Rather, they are educated alongside their classmates which is somewhat complicated since inclusive education is yet to be comprehensively adopted in Nigeria. Although research regarding how CWA are taught in regular classes will contribute essentially to knowledge in special needs education, we found no research that examined the instructional and assessment practices of regular classroom teachers for CWA.

The purpose of this study was to examine how students with albinism are taught in regular classes with the view to ascertaining teacher training profiles on albinism, teachers' beliefs/knowledge on albinism, availability of albinism-friendly facilities, instructional and assessment practices of regular teachers and teachers' challenges in teaching them. Specifically, the following research questions were asked: (a) What is the regular teacher training profile on albinism? (b) What albinism-friendly school facilities are provided for CWA? (c) What are the regular teachers' beliefs/knowledge of albinism? (d) What instructional practices are adopted for CWA? (d) What assessment practices do regular teachers adopt for CWA? (e) What challenges do regular teachers encounter in teaching CWA in a regular classroom?

Method

Research Design

The quantitative descriptive survey method was used to collect data from participants. This enabled the researchers to reach out to a representative sample of the teachers involved in teaching in the two Educational Zones in Anambra State.

Setting

This study was conducted in Anambra State. Anambra State is one of the Southeastern states in Nigeria. It was created in 1991 and has 21 Local Government Areas. There are 259 public secondary schools and 129289 secondary school students in Anambra State (Data from Post Primary School Service Commission, Anambra State).

Population and Sample

Participants in this study were 106 regular classroom teachers who have CWA in their classes in public schools in two Education Zones in Anambra state. These Zones are Akwa and Onitsha Education Zones given the fact that they are host to two major cities in Anambra State, including Awka, the state capital, and Onitsha, which is the largest commercial centre in the East of the Niger. Awka Education Zone has 61 public secondary schools with 1494 teachers (193 male, 1301 female) while Onitsha Education Zone has 54 public secondary schools and 1282 teachers (595 male, 1171 female) (Data from Post Primary School Service Commission, Anambra State, 2017/2018 academic session).

Two sampling techniques were used in recruiting participants. First, the researchers adopted the non-probability purposive sampling technique in which only teachers who have CWA in their classes constituted the sample size. These teachers were purposively sampled since those who have directly instructed and handled CWA have experiences of how such children taught in their respective schools. The second sampling technique adopted is the snowball sampling technique which assisted the researchers to contact relevant participants through referrals. Summary of participants' characteristics is depicted in [Table 1](#).

Table 1. Sample Characteristics of Regular Teachers Teaching CWA

Variables	Characteristics	%(n)
Gender	Male	13.2 %(14)
	Female	86.8 %(92)
Marital Status	Married	63.2 %(67)
	Single	24.5 %(26)
	Divorced	4.7 %(5)
	Widowed	7.5 %(8)
Highest qualification	NCE	8.5 %(9)
	B. Ed/BA/B. Sc	73.6 %(78)
	M. Ed/MA/M. Sc	15.1 %(16)
	PhD	0.0 %(0)
	Missing Value	2.8 %(3)
Area of specialization	Arts Education	34.9 %(37)
	Social Science Education	27.4 %(29)
	Science Education	22.6 %(24)
	Business Education	13.2 %(14)
	Missing Value	1.9 %(2)
School location	Urban	67.0 %(71)
	Rural	29.2 %(31)
	Missing Value	3.8 %(4)
Years of Experience	low experience (0-12 yrs)	52.8 %(56)
	Moderate experience (13-21 yrs)	21.7 %(23)
	High experience (22-32 yrs)	14.2 %(15)
	Missing value	11.3 %(12)

Procedure

In line with the Helsinki Declaration and guidelines, approval for the conduct of the research was obtained from the Faculty of Health Science and Technology, College of Health Sciences Ethical Review Committee. The reference number of the approval letter is

ERC/FHST/NAU/2018/2077. More so, the researchers obtained informed consent from the respondents, and an assurance of the confidentiality of the information obtained was given to them. It was explained to them that the exercise was only for research purposes.

Practically, the lack of records on CWA and the schools where they could be found made it a little difficult for the researchers. The researchers visited public secondary schools and asked the principals if they had CWA in their schools. When they agreed, the list of teachers that teach them was released to the researchers and the questionnaire was distributed to them. To facilitate this approach the researchers had to employ the use of social media (WhatsApp). The researchers sent a text message to the English language teachers' WhatsApp group urging them to indicate schools that have CWA. This WhatsApp group was used because the English Language is a compulsory subject in secondary schools in Nigeria and each secondary school was likely to have a representative in the group.

Twelve secondary schools were identified in all through this referral and visits to schools. The copies of the questionnaire were distributed to the teachers in their schools. One hundred and twenty copies of the questionnaire were distributed. During the screening of the returned questionnaire, the researchers observed that 14 copies were not properly filled in. Thus, these were not included in the analysis.

Instrument

The instrument used for data collection was a researcher-developed questionnaire based on an extensive literature review on albinism studies around the globe. Items generated were later validated and suggestions given were taken into considerations in drafting the final copy of the questionnaire. The questionnaire was tagged 'practices in integrating CWA in classroom questionnaire' (PICACQ). It consisted of two sections. The first section consisted of the items ascertaining the biographic data of the respondents and instructions on how to respond to the questionnaire. It also contained the training profiles on teaching CWA of the teachers. The second section consisted of five sub-sections which have to do with the albinism-friendly school facilities provided for CWA (12 items); teacher beliefs/knowledge about albinism/CWA (15 items); instructional practices for students with albinism (11 items); assessment practices for students with albinism (11 items); and challenges teachers encounter in teaching CWA in regular classroom (9 items) respectively. The reliability coefficients of the instrument were ascertained. Cronbach's Alpha was used for sub-sections (1, 3, 4, 5) at interval scales. These clusters yielded high-reliability coefficients of 0.92, 0.80, 0.90 and 0.78 respectively. The reliability coefficient of cluster two was determined using Kuder-Richardson 20 statistic because the items were scored dichotomously and it yielded a high coefficient of 0.98.

Data Analysis

The data collected were analyzed using IBM SPSS version 22 (IBM Corp, 2013). Before the data were analyzed, the researchers went through the filled-in questionnaire to discard those that were not properly filled. Also, questionnaires that had conflicting responses were discarded. For example, if a respondent said he/she had received no training on how to handle CWA and went on to fill spaces provided for avenues teachers received training on how to handle CWA, such respondents were not included in the analysis.

Frequencies, percentages, means, and standard deviations were used in answering the research questions while *t*-test statistic and Analysis of Variance (ANOVA) were used to test the hypotheses. In order to take decisions in mean responses, real limits were adopted: strongly disagreed (1-1.44); disagree (1.45-2.44); agreed (2.45-3.44); strongly agreed (3.45-4.00). These were abbreviated respectively as SD, D, A, SA.

Results

Table 2 showed that the majority of regular teachers have not received any training on how to handle CWA in regular classes. Only 34 % of regular teachers have received training on teaching CWA. Government organized workshops constituted the most rated platform used in training teachers on how to teach CWA followed by the pre-service training and workshops organized by colleagues in their schools. The least avenue for training was online/personal readings.

Table 2. Training Profile of Regular Teachers Teaching CWA

Variables		%(n)
Received Training on Albinism	Yes	34.0 %(36)
	No	62.3 %(66)
	Missing Values	3.8 %(4)
Training Platform	Government Organized Workshop	16.0 %(17)
	NGO Organized Workshop	8.5 %(9)
	Workshops organized in school by colleagues	9.4 %(10)
	Online workshop/personal readings	5.7 %(6)
	Pre-service Training (Colleges of Education/universities)	10.4 %(11)

Table 3 showed that approximately 70 % of teachers responded that the listed facilities were never provided for CWA. Only about 20 % of the regular teachers said these facilities were inadequately provided while less than 10 % of the teachers responded that those facilities were adequately provided.

Table 3. Teachers' Percentage Responses on Albinism-friendly School Facilities Provided for CWA

S/N	These facilities were provided for CWA in my school:	Never provided	Inadequately provided	Adequately Provided
1	Enlarged text prints (textbooks)	63.2 %	22.6 %	13.2 %
2	Audio tapes/Recorders	69.8 %	21.7 %	8.5 %
3	Magnifiers (stand or hand-held magnifiers)	74.5 %	13.2 %	7.5 %
4	Bookstands to allow the student to bring his/her reading material closer to their eyes	73.6 %	16.0 %	8.5 %
5	Adaptive computer software (such as text to speech software)	71.7 %	21.7 %	5.7 %
6	Improvised bookstands in the form of putting a large book under student's reading material	66.0 %	29.2 %	4.7 %
7	Paper which has extra-dark lines	68.9 %	21.7 %	8.5 %
8	Note books with large space for writing	64.2 %	25.5 %	9.4 %
9	Acetate sheets or sheets of coloured film or plastic	74.5 %	19.8 %	5.7 %
10	Visors or eye shields	68.9 %	27.4 %	2.8 %
11	Ball caps for outdoor games	69.8 %	24.5 %	4.7 %
12	Yellow balls and coloured bases for ball games	76.4 %	17.0 %	6.6 %

***Incomplete percentage values result from missing values

Table 4 showed the belief/knowledge of regular teachers on albinism/CWA. Regular teachers had poor/shallow knowledge/belief on 8 items out of the fifteen items listed above. This was more pronounced when it comes to the workings of the sight of CWA. More than 60 % of regular teachers had poor knowledge of the workings of the sight of CWA. They have good knowledge of the genetic basis of the problem. Teachers also believed that CWA can learn in regular classrooms.

Table 4. Regular Teachers' Beliefs/Knowledge on Albinism/CWA

S/N	I have the following beliefs about albinism/CWA:	True	False	Don't know	Remarks
1	Their sights get worse as they grow older and they may likely become blind with age	28.3 %	37.7 %	31.1 %	Poor knowledge
2	CWA have a different way of reasoning from the way children without albinism reason.	18.9 %	70.8 %	6.6 %	Good knowledge
3	It is a neurological problem affecting the brain	21.7 %	46.2 %	29.2 %	Poor knowledge
4	Albinism could be contagious	6.6 %	75.7 %	14.2 %	Good knowledge
5	CWA cannot learn in a regular classroom	11.3 %	72.6 %	10.4 %	Good belief
6	CWA have a genetic problem that has to do with colour pigmentation	60.4 %	14.2 %	21.7 %	Good knowledge
7	CWA have normal vision	12.3 %	72.6 %	11.3 %	Good knowledge
8	CWA can learn in regular classrooms even without any form of modifications	50 %	36.8 %	8.5 %	Wrong belief
9	CWA are usually slow learners	35.8 %	50.9 %	10.4 %	Wrong belief
10	Even when adequate intervention is given to CWA, they still achieve little in school	19.8 %	70.8 %	6.6 %	Good belief
11	The needs of CWA are the same	34.9 %	48.1 %	14.6 %	Poor knowledge
12	CWA have no flare for games/sports	25.5 %	47.2 %	20.8 %	Poor knowledge
13	The severity of visual problem of CWA is based on the type of albinism the child has	54.7 %	20.8 %	20.8 %	Good knowledge
14	The involuntary rapid eye movements of some CWA make objects look like they are constantly moving	32.1 %	19.8 %	45.3 %	Poor knowledge
15	CWA find it difficult to understand whether objects are still or moving	25.5 %	32.1 %	38.7 %	Poor knowledge

Table 5 showed evidence of good instructional practices by regular classroom teachers on teaching CWA. All the items had mean scores of more than 2.5 and the standard deviation showed that responses are clustered around the mean.

Table 5. Instructional Practices Regular Teachers Adopted in Teaching Students with Albinism

S/N	I adopted the following instructional practices in handling students with albinism in my class:	Mean	SD	Remark
1	Encouraging CWA to sit at the front of the classroom so that they can see the chalkboard	3.75	0.45	SA
2	Providing large print sheets for CWA	3.07	0.89	SA
3	Writing in bold, clear, letters on the chalkboard	3.47	0.71	SA

4	Making a good contrast between the symbols or letters on the board and the background when teaching CWA in my class	3.19	0.80	SA
5	Reducing glare by making sure light sources come from behind or from the side	2.89	0.83	A
6	Allowing close viewing when teaching CWA	3.44	0.80	SA
7	Encouraging hands-on experience whenever possible	3.14	0.78	SA
8	Making sure that CWA are monitored during my teaching	3.47	0.74	SA
9	Bringing out extra-time to teach CWA	2.85	0.96	A
10	Interfacing with parents of CWA on how they can help them learn	3.08	0.97	SA
11	Allowing them extra-time to copy notes on the chalkboard	3.30	0.82	SA

***SA=strongly agreed; A=agreed

Table 6 showed evidence of good assessment practices since almost all the items with the exception of item 2 had mean ratings of 2.5 and above. Item 1 and 2 had the highest mean scores. Standard deviation showed that responses clustered around mean except in items 5 and 11 which had higher standard deviations than other items. It appears that regular teachers' responses in these items are not similar.

Table 6. Assessment Practices Adopted by Regular Teachers in Teaching CWA

S/N	I adopted the following assessment practices in handling students with albinism in my class:	Mean	SD	Remark
1	Giving them more time during testing	3.38	0.76	SA
2	Making alternative tests for them (e.g., oral test/examination) when there is a significant visual problem	3.12	0.92	SA
3	Allowing them to type rather than write manually if need be	2.46	0.89	A
4	Typing their tests rather allowing them to copy from handwritten material if need be	2.63	0.97	A
5	Giving them visual rest breaks as they write tests	2.77	1.00	A
6	Communicating assessment criteria on time to students with albinism	2.80	0.91	A
7	Informing students with albinism how grades are to be assigned	2.61	0.95	A
8	Providing written or oral feedback to CWA	2.87	0.93	A
9	Incorporating the efforts of students with albinism in the calculation of their grades	2.64	0.87	A
10	Incorporating CWA's classroom behaviors in calculating their grades	2.57	0.90	A
11	Producing their tests in large prints	2.91	1.00	A

***SA=strongly agree; A=agreed

Table 7 showed the challenges regular teachers face in teaching CWA. Items 2, 8 and 9 had the highest mean scores as the challenges teachers face in teaching CWA. This shows that the

greatest challenges teachers have in teaching CWA are instructional and institutional facilities; and inadequate time to attend to their individual needs. Others are difficulty in making their fellow students accept them, inadequate training and difficulty in getting them motivated in class.

Table 7. Challenges Faced by Regular Teachers in Teaching CWA

S/ N	I encountered the following challenges in handling students with albinism in my class:	Mean	SD	Remark
1	Difficulty in making their fellow students accept them	2.76	0.91	A
2	Inadequate instructional materials in teaching them	3.23	0.74	SA
3	Difficulty in getting them motivated in my class	2.59	0.82	A
4	Difficulty in assessing their performance in class	2.31	0.73	D
5	Difficulty in integrating them in my teaching	2.52	0.85	A
6	Difficulty in finding a suitable strategy to teach them	2.49	0.81	A
7	Inadequate training in handling them in a regular class	2.65	0.79	A
8	Inadequate time to attend to their individual needs	2.89	0.84	A
9	Inadequate albinism-friendly school facilities	2.96	0.94	A

*** SA=strongly agree; A=agree; D=disagree

Table 8 showed that there was no significant difference in the scores for male ($M=35.29$, $SD=4.66$) and female teachers ($M=35.88$, $SD=5.23$) on instructional practices for CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = -.396$, $df = 93$, $\alpha = 0.05$). Therefore the null hypothesis was not rejected. There was no significant difference in the scores for male ($M=29.80$, $SD=6.51$) and female teachers ($M=30.62$, $SD=7.26$) on assessment practices for CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = -.338$, $df = 86$, $\alpha = 0.05$). This hypothesis was not rejected. Significant difference did not occur in the scores for male ($M=26.00$, $SD=3.46$) and female teachers ($M=24.14$, $SD=4.53$) on challenges they faced in teaching CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = 1.456$, $df = 98$, $\alpha = 0.05$). The hypothesis was rejected.

Furthermore, table 8 showed that there was a significant difference in the scores for teachers in the urban area ($M=36.40$, $SD=4.97$) and those in rural areas ($M=34.04$, $SD=5.36$) on the instructional practices for CWA; $t\text{-cal} > t\text{-crit.}$ ($t\text{-cal} = 2.042$, $df = 89$, $\alpha = 0.05$). The hypothesis is therefore rejected. There was no significant difference in the scores of teachers in the urban area ($M=30.75$, $SD=7.10$) and those in the rural area ($M=28.42$, $SD=6.39$) on the assessment practices for CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = 1.399$, $df = 82$, $\alpha = 0.05$). The hypothesis was not rejected. Also, there was no significant difference in the score of teachers in urban areas ($M=24.06$, $SD=4.47$) and those in the rural areas ($M=25.07$, $SD=4.52$) on the challenges they face in teaching CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = -1.016$, $df = 95$, $\alpha = 0.05$). This hypothesis is also not rejected.

Table 8 showed that there was no significant difference in the scores of those who received training on handling CWA ($M=37.24$, $SD=4.58$) and those who did not receive training ($M=35.05$, $SD=5.18$) on the instructional practices for CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = 1.985$, $df = 89$, $\alpha = 0.05$). The hypothesis was not rejected. On assessment practices, table 8 showed that there was no significant difference in the score of teachers who received training ($M= 32.37$, $SD=6.53$) and those who did not receive training ($M=29.44$, $SD=7.37$) on assessment practices of CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = 1.822$, $df = 83$, $\alpha = 0.05$). Also, there was no significant difference in the scores of teachers who received training ($M= 24.09$, $SD=4.34$) and those who did not receive training ($M=24.61$, $SD=4.55$) on challenges they face in handling CWA; $t\text{-cal} < t\text{-crit.}$ ($t\text{-cal} = -.531$, $df = 94$, $\alpha = 0.05$). The hypothesis was not rejected.

Table 8. t-test Table of Mean Differences of Respondents on Instructional and Assessment Practices and Challenges (N=106)

Source		Mean	SD	t	df	Sig	Remark
Gender x instructional practices	Male	35.29	4.66	-.396	93	.693	Not sig
	Female	35.88	5.23				
Gender x assessment practices	Male	29.80	6.51	-.338	86	.736	Not sig
	Female	30.62	7.26				
Gender x challenges	Male	26.00	3.46	1.456	98	.149	Not sig
	Female	24.14	4.53				
School location x instructional practices	Urban	36.40	4.97	2.042	89	.044	Sig
	Rural	34.04	5.36				
School location x assessment practices	Urban	30.75	7.10	1.399	82	.166	Not sig
	Rural	28.42	6.39				
School location x challenges	Urban	24.06	4.47	-1.016	95	.312	Not sig
	Rural	25.07	4.52				
Training received x instructional practices	Yes	37.24	4.85	1.985	89	.050	Not sig
	No	35.05	5.18				
Training received x assessment practices	Yes	32.37	6.53	1.822	83	.072	Not sig
	No	29.44	7.37				
Training received x challenges	Yes	24.09	4.34	-.531	94	.596	Not sig
	No	24.61	4.55				

***Incomplete values result from missing values

***Not sig=Not significant; Sig=Significant

Table 9 showed the analysis of variance. There was no significant mean difference between teachers' qualifications and the instructional, assessment practices adopted by them and the challenges they face in teaching CWA since the p-values are greater than the α level = 0.05.

Table 9. ANOVA Table of Mean Differences of Respondents on Instructional and Assessment Practices and Challenges

Source		Sum of squares	df	Mean Squares	F	P	Remark
Highest Qualification x instructional practices	Between Groups	25.795	2	12.898	.489	.615	Not sig
	Within Groups	2349.118	89	26.395			
Highest Qualification x assessment practices	Between Groups	18.849	2	9.424	.182	.834	Not sig
	Within Groups	4292.639	83	51.719			

Highest Qualification x challenges	Between Groups	65.991	2	32.996	1.703	.188	Not sig
	Within groups	1821.782	94	19.381			
Years of experience x instructional practices	Between Groups	18.976	3	6.325	.234	.872	Not sig
	Within Groups	2458.813	91	27.020			
Years of experience x assessment practices	Between Groups	66.533	3	22.178	.426	.735	Not sig
	Within Groups	4377.421	84	52.112			
Years of experience x challenges	Between Groups	11.931	3	3.977	.198	.898	Not sig
	Within Groups	1932.259	96	20.128			

***Incomplete values result from missing values

***Not sig=Not significant; Sig=Significant

Discussion

This study examined how CWA are educated by regular teachers in public secondary schools in Anambra State, Nigeria. The scope included the facilities that are provided in schools for CWA, teachers' beliefs/knowledge on albinism, instructional and assessment practices of regular teachers in teaching CWA. In addition, the training profiles of the teachers were ascertained showing that only 34 % of the teachers had received some training on how to handle CWA. A good number of them had no training concerning how to handle CWA during their teacher training in colleges of education/universities. Researchers have earlier shown that little content on albinism is included in teacher curriculum in some countries in Africa (Lynch, Lund, 2011). This resulted in teachers lacking rudimentary skills and competences that could help them handle CWA. This study showed that the most available avenue for teachers to get information on albinism in Nigeria is the government organized workshops. This is likely to be a fallout of the recent National Policy on Albinism in Nigeria (FME, 2012).

More so, findings showed that schools were not albinism-friendly going by the required facilities that should be provided for CWA. Responses showed that none of the listed facilities were adequately provided. This will in a way make learning more frustrating for CWA and even the teachers who are handling them. There is a need that enlarged textbooks, book stands, notebooks with large space for writing, magnifiers, etc are provided for CWA to facilitate their learning. Lund (2001) in her earlier study found that over 60% of pupils used in the study perceived that there were no special provisions made for them, which buttresses the findings of this study in this regard. Lynch and Lund (2011) have noted that CWA should be provided with their own text/book even if it is not enough.

Regular teachers had poor/shallow knowledge /belief of some items presented to them. This was more pronounced when it came to the workings of the sight of CWA. More than 60 % of regular teachers had poor knowledge of the workings of the sight of CWA. They have good knowledge of the genetic basis of the problem. This finding confirms other studies carried out in other African countries. Lynch and Lund (2011) found that teachers' lack of understanding about the working of the sight of CWA made them teach CWA Braille believing that as CWA grow older that they may become blind. Regarding the genetic basis of the problem, teachers were found to have an understanding of the cause of the problem (Lynch, Lund, 2011). Also, the study conducted by Msomi (2014) revealed that teachers lack understanding about albinism. Teachers also believed that CWA can learn in regular classrooms.

Findings showed evidence of good instructional practices by regular classroom teachers on teaching CWA. They put up a form of special consideration in teaching CWA in their classes. Teachers encouraged CWA to sit in the front during classes, allowed them extra time to copy notes,

made a good contrast between symbols and letters on the board and the background, etc. when teaching CWA. Lynch and Lund (2011) found teachers in Malawi using effective strategies as found in the present study. This kind of strategy is considered good practices (Lynch, Lund, 2011). Hypotheses tested on gender, teacher qualification, and years of experience in instructional practices of teachers yielded no significant differences. Significant differences emerged in school location and instructional practices in which findings showed that teachers in urban areas are likely to possess better instructional strategies to handle CWA. This could be attributed to the possibility of those in urban areas to have access to more avenues for training like the internet.

Furthermore, the result showed that teachers reported good assessment practices in handling CWA. This included giving them more time during test, making an alternative test for them, giving them visual rest breaks, etc. This is in line with the National Policy on Albinism (FME, 2012) where it was categorically stated that extra 30 minutes should be given CWA during test. Hypotheses tested showed no significant difference even though those who received training reported higher mean assessment practices than those who did not receive any training. It is expected that they should have done much better than those who did not receive training. However, not accounting for significant differences in this direction might have been as a result of shallow content on information on albinism in teacher curriculum (Lynch, Lund, 2011). It could be said that there may be no systematic and conscientious approach in training teachers in assessing CWA. Teachers might have come up with good practices as a result of experience.

Teachers reported that they face some challenges in handling CWA in schools. Such challenges include inadequate facilities in teaching CWA, inadequate time to attend to their individual needs, difficulty in making their peers without albinism accept them, etc. There could be a challenge to teaching them when there is an inadequate provision of facilities in teaching CWA. Because of their visual problem, government and concerned stakeholders should make available appropriate special facilities for them. Also, time could be a problem in regular schools in Nigeria since the student-teacher ratio is high in Nigeria. Classes have been reported to be over-crowded (Fabunmi et al., 2007). Also hypotheses tested in this direction did not show any significant mean difference. However, those who reported that they have received training on albinism reported lower mean scores on challenges than those who did not receive any training even though the difference was not significant.

Conclusion and Limitation

From the findings, it could be concluded that even though there were insufficient albinism-friendly facilities and poor knowledge about albinism among the sampled teachers, teacher-reported practices in assessment and instruction in educating CWA were in line with good practices. Equipping and educating these teachers will enable them to become more consistent and conscientious in educating children with disabilities. It is therefore imperative that training and retraining of teachers on the nitty-gritty of albinism and the best approach teachers that could be adopted to teach CWA be organized.

The study is limited by the fact that the sample size is small and did not cover all the education zones in Anambra State. This sample size is likely to restrict the generalization of the findings to the two zones studied. Furthermore, a mixed research method could have given a more robust insight into the education of these students. Therefore, the researchers suggest that future research in this direction should integrate both qualitative and quantitative designs.

Conflicts of Interest

The authors declare the work has no conflicts of interest.

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