

Assessment of Ocular Health Status of Pupils in Public and Private Primary Schools in Sabon Gari, Zaria, Kaduna State

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Background: Routine assessment of the ocular health status of primary school pupils is not done as a matter of policy in Nigeria. Public schools are maintained at public expense and their policy thrusts are as directed by the government. However, private schools are founded, conducted and maintained by private individuals or groups. They usually charge tuition and often follow a particular philosophy and viewpoint. The possibility of differences in the ocular health of the two groups of children, therefore exists. Children are often not able to articulate their visual complaints like adults even though the ocular health of children may have effect on their overall development.^{1,2} The aim of this study is to determine the ocular health status of pupils in private and public primary schools in Sabon Gari, Zaria, Kaduna State and ascertain whether there are any differences.

Methods: This is a descriptive cross-sectional study. A multi stage sampling technique was used to select the pupils. Visual acuity was assessed using Snellen's chart while the anterior and posterior segments were examined with a pen torch and loupe and direct ophthalmoscope respectively. Pupils that required further assessment were referred to the nearest facilities that provide ophthalmic services.

Results: A total of 540 pupils were selected from six primary schools, comprising of 270 from three private schools and an equal number from 3 public schools. The ages of the pupils ranged from 3-16 years with a mean of 8.42 (SD±2.16). Females were 272 (50.4%) and males 268 (49.6%) with a F: M ratio of 1.01:1. The prevalence of ocular morbidities from the study was 22.8%. The prevalence of ocular morbidities in private and public schools were 21.1% and 24.4% respectively (P> 0.05). Ametropia was the commonest ocular disorder seen in private schools

17 (6.3%) while the commonest ocular disorder in public schools was vernal conjunctivitis 23(8.5%) (Table 1). There was, however, no significant difference in the distribution of ocular morbidities among the pupils in public compared with those in private schools. (Table 1)

Table 1: Diagnosis of the pupils in Sabon- Gari by school

Diagnosis	Public schools Freq (%) (n=270)	Private schools Freq (%) (n=270)	Test Stat. X ² df	p value
Normal	204 (75.6)	213 (78.9)	1.859	1.000
Ametropia	7 (2.6)	17 (6.3)		
Molluscum Contagiosum	1 (0.4)	0 (0)		
Corneal opacity	1 (0.4)	0 (0)		
Optic atrophy	1 (0.4)	0 (0)		
Blepharitis	5 (1.9)	0 (0)		
Traumatic cataract	1 (0.4)	0 (0)		
Conjunctival nevus	1 (0.4)	0 (0)		
Vernal conjunctivitis	23 (8.5)	14 (5.2)		
Microbial conjunctivitis	5 (1.9)	1 (0.4)		
Glaucoma suspect	16 (5.9)	16 (5.9)		
Strabismus	1 (0.4)	2 (0.7)		
Maculopathy	0 (0)	2 (0.7)		
Subconj.heamorrhage	2 (0.74)	0 (0)		
Trichiasis	2 (0.7)	3 (1.1)		
Cornea foreign body	0 (0)	1 (0.4)		
Ocular albinism	0 (0)	1 (0.4)		

Discussion: In the absence of an established policy for pre-school/ school eye screening, routine school eye check can fill up the gap, as screening children for diseases is receiving greater attention now as the benefits of early detection and treatment have been shown to be better worldwide³.

The prevalence of ocular morbidity in this study was 22.8%; this is similar to the findings of Ayanniyi⁴ (19.9%) and Ferebee⁵ (21.5%). The fact that all the subjects examined in the studies were within the paediatric age group may probably account for the similarity in the findings despite the variation in the socio-demographics, population size and geographical areas of the different studies. Ametropia was the commonest ocular disorder seen in private schools while the commonest ocular disorder in public schools was vernal conjunctivitis. Avoidable (preventable and treatable) eye diseases constituted the bulk of the cases seen in pupils of public and private primary schools in Sabon Gari, Zaria, Kaduna State,

Nigeria. Therefore, implementation of school eye health is strongly recommended.

References

1. Abah ER, Oladigbolu KK, Samaila E and Gani-Ikilama . Ocular disorders in children in Zaria children's school. Niger J Clin Pract 2011;14(4): 473-476.
2. Jose R and Sachdeva S. School eye screening and the National Program for Control of Blindness. Indian Pediatr. 2009; 46(3): 205-208.
3. Strong K, Wald N, Miller A and Alwan A. Current concepts in screening for non-communicable disease: World Health Organization Consultation Group Report on methodology of non -communicable disease screening. Journal of medical screening 2005;12(1): 12-19
4. Ayanniyi AA, Mahmoud AO and Olatunji FO. Causes and Prevalence of ocular

- morbidity among primary school children in Ilorin, Nigeria. Nigerian Journal of Clinical Practice 2010; 13(3): 248-253.
5. Ferebee A. Childhood Vision: Public challenges and opportunities. New-York; 2004: School of Public health and health services, George Washington Medical Centre:1-24.