Refractive Errors and Spectacle Acceptance among Secondary School Students in Igabi, North- Western, Nigeria

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Introduction: Refractive errors are common among Nigerians[1,2]but remain an avoidable cause of blindness.[3] School eye screening and spectacle provision are avenues for correcting refractive errors among children.[4]

Methods: A cross-sectional survey done between February and November 2012 in one of the 23 LGAs of Kaduna State and the location of National Eye Center. Sample size of 600 was determined using the formula for population greater than 10,000.[5]Ethical approval and permission of relevant authorities was obtained. Study population was chosen by three stage random sampling using simple random sampling at each stage with inclusion criteria. Supporting staff were trained and relevant information entered into the questionnaire and analyzed using SPSS 16.

Results: Five hundred and thirty-four students (89%) consented and were examined. Age range was 12 to 21 years with mean of 15 years and standard deviation of 2.48 years with M: F of 1.1:1. Students aged 16-18 years constituted 39% of the study population and 34 students (6.4%) had Visual acuity (VA) < 6/12. Myopia was commonest refractive error and students aged 13-15 years constituted 45.6% of refractive errors. Females accounted for 56% cases of refractive errors (P> 0.005), 61% of myopes were females. Only 41% of those requested to buy spectacles actually bought spectacles and four students (28.6%) were found using their glasses at the time of follow-up visit. Seventy percent of those who did not use spectacle attributed it to the cost.

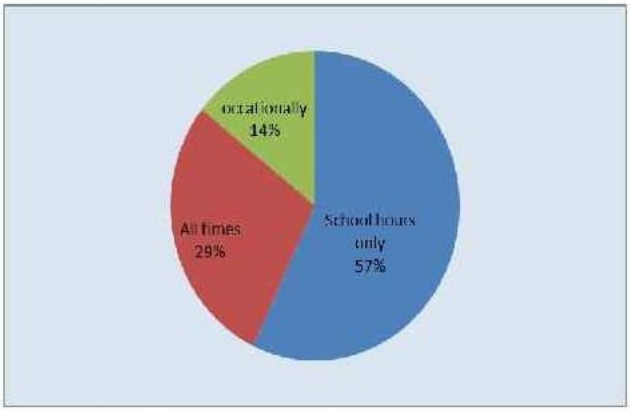

Fig. 1: Pattern of spectacle wear

Other factors were also responsible for failure to use spectacles. Eighty-six percent of those who bought spectacles had subjective improvement in their academic performance.

Discussion: The prevalence of 6.4% for refractive error found in this study is higher than the 1.7% found by a similar study among younger age group in same area.[6] This may be due to age difference in the 2 studies. Only 41% of those requested to buy spectacles bought within 2 months. This was attributed to the cost, social beliefs and other reasons. Cost of spectacles was a major barrier and similar to a finding in Tanzania.[5] Therefore health care planners need to be mindful of this when setting price for spectacles in developing countries and to also consider beliefs and family socio-economic status.

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