Prevalence of hearing loss among primary school children in Mbarara, Uganda

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Discussion

Our 3.3% rate of hearing loss among primary school children is on the lower end but within range of previous studies evaluating school-aged children in Africa. Similar studies in Uganda, Zimbabwe, Kenya, Mozambique and Tanzania have yielded a prevalence of hearing loss among primary school children of 5.6%, 2.4%, 5.6%, 3% and 3%, respectively.\(^4,5,6,7,8\) A recent estimate published in 2012 by the WHO revealed a prevalence of disabling hearing loss in children in sub-Saharan African to be 1.9%, versus 0.5% in high-income countries.\(^9\) Our rate of 1.4% for disabling hearing loss is lower than the above estimate for sub-Saharan Africa, but still almost three-fold higher than the quoted rate for high-income countries.

Many challenges occurred during performance of the study. Although the quietest room was requested for screenings, sometimes there was still a significant level of background noise that may have contributed to some false-positive screenings. Also, the study subjects may be biased towards those with normal hearing, as children with hearing loss may not actually attend school at all. It was difficult to assess the etiology of hearing loss outside the obvious causes such as suppurative otitis media, middle ear effusion, or tympanic membrane perforations. Although a survey had been designed to attain risk factors for sensorineural hearing loss such as febrile illnesses during childhood, consanguinity, or use of ototoxic medications, it was difficult to implement the survey in the boarding schools where the parents were not immediately available.

Conclusions

The prevalence for a failed hearing screening is in accordance with other published studies. Hearing impairment is a significant problem in Uganda and efforts should be made for primary, secondary, and tertiary prevention of hearing loss. An implementation of a universal screening program to detect HI as early as possible is optimal, since early intervention has been shown to be superior to delayed intervention regarding normal development in children.\(^10\) We highly recommend that children be screened for this potentially readily treatable condition, especially those who may be performing poorly in school. Western Uganda is in desperate need of a trained audiologist to fully address the need for comprehensive otolaryngologic care in the region.

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