

## SCHOOL AGE HEARING SCREENING: IDENTIFICATION OF HEARING IMPAIRMENTS AMONG PRIMARY SCHOOL STUDENTS IN PENANG

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### ABSTRACT

**Introduction:** In Malaysia, hearing screening is not the integral component of school health screening program. Hearing loss affects about 1 to 3 newborns per 1000 live births. Its prevalence among children is expected to increase due to addition of those with late-onset, late-identified and acquired hearing loss. Untreated hearing loss even at mild level may be educationally significant. The purpose of this study is to identify primary school students with potential hearing losses and referral for diagnosis and treatment, if necessary. An additional aim is to characterize audiological profile to identify the occurrence of hearing impairments in this population.

**Methods:** A total of 935 primary school students in Penang were enrolled in this program. Otoscopic examination followed by Pure Tone Audiometry (PTA) or Distortion Product Otoacoustic Emissions (DPOAE) were used in the screening.

**Results:** There are 94% of students who passed the hearing screening, while 5% of students failed the screening and the remaining 1% were unable to be tested. Among those students who did not pass the screening, 80% of them failed unilaterally while the remaining failed bilaterally. Students who were presented with hearing deficits were referred for further audiological evaluation and/or medical management.

**Conclusions:** Prevalence of 6% hearing deficits found in this sample demonstrated the need for regular hearing screening at schools to provide early access in detection and intervention of childhood hearing loss.

**KEYWORDS:** Hearing, screening, Prevalence, Childhood, hearing loss

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