

Comparison of vision disorders between children in mainstream and special education classes in government primary schools in Malaysia.

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Abstract

INTRODUCTION:

The visual status of children with learning disabilities has not been extensively studied. This study aimed to compare vision disorders between children in mainstream classes and those with learning disabilities attending special education classes in government primary schools in Malaysia.

METHODS:

In this cross-sectional comparative study, 60 school children (30 from mainstream classes and 30 from special education classes) who were matched in age (6-12 years old) and ethnicity (Malay, Chinese and Indian) were examined. The subjects were recruited using non-probability convenience sampling. A complete eye examination was performed to detect three major vision disorders, namely refractive error, lag of accommodation and convergence insufficiency.

RESULTS:

The overall prevalence of refractive error, lag of accommodation and convergence insufficiency was found to be 65.0%, 43.3% and 35.2%, respectively. Convergence insufficiency ($\chi^2 = 24.073$, $p < 0.001$) was found to be associated with children in special education classes. No association was found between refractive error and lag of accommodation ($p > 0.05$) with the type of classes.

CONCLUSION:

Children in special education classes are more likely to have convergence insufficiency compared to children in mainstream classes. Thus, vision screening programmes for children in special education classes may need to be modified.