

Speech perception and oral language development of deaf children in mainstream schools

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Purpose:

It is generally agreed that hearing impairment will have a considerable negative impact on speech perception and oral language development. However, with the technical advancement in recent years, deaf children are more ready to access speech information, and hence the potential for developing oral language skill increased. Mainstreaming deaf children into regular schools with the adoption of auditory-oral communication approach for teaching deaf children has been the major trend in Hong Kong deaf education for many years. On one hand, this practice is said to further increase the opportunity for using the residual hearing and practice their oral language. On the other hand, no systematic study has been done in Hong Kong to review the general oral language level and development of deaf children. Aiming at building a foundation for further research studies in deaf education, this study tries to answer the following questions: (1) What is the oral language ability of deaf children in HK? (2) What factor(s) may better predict the oral language outcome in deaf children? (3) What is the development of oral language ability of deaf children over time?

Method:

A total number of 111 Cantonese-speaking deaf children were recruited in the study. They were all studying in mainstream primary schools, and with degree of hearing loss ranged from 'mild' to 'profound'. Their oral language abilities were tested with the Hong Kong Cantonese Oral Language Assessment Scale (HKCOLAS), and their speech perception were tested with Cantonese Lexical Neighborhood Test (CLNT) and the Cantonese tone identification test (CANTIT) at time point 1. About 3 years later (+/- 0.5 year), 83 children's oral language abilities were re-assessed using HKCOLAS, and the results of 55 children still studying in primary school were used for analyses at time point 2.

The 2014 Symposium on Sign Bilingualism and Deaf Education

Results:

In general, the oral language ability of deaf children as a whole was poorer than that of the normal hearing children. Based on the standard diagnostic criteria of HKCOLAS and the statistical method, there were as high as 65% of deaf children experiencing different levels of oral language delay. Multiple regression analysis was carried out to predict the contribution of several predictors to oral language outcomes. It suggested that lexical tone perception ability could significantly explain the variance. Over the time, majority of deaf children (71%) stayed in their respective language ability groups, some of them (5%) showed a regression and others (24%) showed improvement.

Conclusion:

The results of the present study were both positive and negative. While 35% deaf children showed age appropriate oral language skill, about two-thirds of deaf children in mainstream schools had difficulties in verbal comprehension and verbal expression. Instead of referring to the degree of hearing loss, Cantonese lexical tone perception is an important factor to predict the oral language outcome. Growth in oral language ability in deaf children is shown over the time, but what factors may contribute the regression or improvement in mainstream education is left to be answered.