

Evaluation of the impact of early diagnosis and intervention on the language development in  
hearing impaired infants and the impact on their families

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## ABSTRACT

A newborn hearing screening programme was introduced in one local Primary Care Trust in October 2003. One of the aims of diagnosing babies early was to put intervention services in place that supported the family, to enable these hearing impaired children to achieve age appropriate language and communication by the time they reached school age. The aim of this small scale project was to identify a group of children who were diagnosed from birth with a significant permanent hearing loss, and follow their achievements in language and communication, through the monitoring protocol, British Picture Vocabulary Scales and Reynell Developmental Language Scales until they reached the age of school entry. The experiences and feelings of the parents, at diagnosis, of three profoundly deaf children were recorded and analysed.

Using convenience sampling, a total of twelve children with bilateral sensorineural hearing loss were selected to participate in this small scale research study. Quantitative and qualitative analysis were undertaken, using a triangulation approach. This involved collecting and collating results from published language assessments and the Monitoring Protocol for deaf children and using descriptive statistics to analyse these results. It also entailed conducting three semi structured interviews with three parents, and using Colaizzi's thematic analysis to obtain significant statements and key themes and analyse the statements. The validity and reliability of the results have been considered. Member checking, as described by Becks (1993) was followed for the Colaizzi analysis and the quantitative assessments used are standardised tests.

There were only three children who had achieved age appropriate communication and language by the age of three years and two who had achieved this at the age of five years. However, the remaining children, having made a slow start, all started making good progress once they entered nursery education and are now slowly catching up with their peers. There were 11 themes identified using Colaizzi's thematic analysis of the semi structured interviews. These included: the difficulty of achieving consistent hearing aid wear with young babies; parents wanting their children to be part of the hearing world; the experience of good professional support; acceptance of deafness; the feeling that early detection is good; the need for contact with other families and the achievement of success in speech and language.

From such a small sample of children the results were varied. The key conclusions were that there are a number of factors which affect the development of communication skills in young hearing impaired children. These include: the language and culture of the home; the degree of hearing impairment, the age at which consistent hearing aid wear is established and the input from the professionals. The key factor appears to be the parents and family themselves, accepting and understanding the nature of their child's hearing loss, and their readiness to 'buy into' the development of their child. Support services, therefore, need to give the parents time to understand the implications and accept the diagnosis, before fitting with hearing aids. They also need to work with the family, and arrange a flexible programme which adapts to the needs of the family at any given stage.