Post-implant habilitation for children using cochlear implants: effects on long-term outcome

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Most clinicians working in the cochlear implant field advocate a regular habilitation program for young children receiving implants. The development of auditory skills and the incorporation of these skills into language development are thought to be key areas for such programs. Studies of speech perception and language outcomes demonstrate that an educational approach that emphasises spoken language development appears to enhance the results for implanted children. It remains difficult, however, to demonstrate clearly the effect of habilitation objectively and to determine how much individual attention is desirable for each child. This pilot study considered the long-term speech perception and language outcomes for two groups of children who received Nucleus cochlear implants in Melbourne. One group (n=17) was identified as receiving regular habilitation from the Melbourne Cochlear Implant Clinic over a four-year post-operative period. Another group (n=11) was identified as receiving very little regular habilitation over the post-operative period. The language and speech perception results for these two groups showed a significant difference in performance on a wide range of measures with the group receiving regular formal habilitation demonstrating better performance on all measures. These groups included only congenitally profoundly hearing-impaired children and did not differ significantly on mean age at implant or experience at the time of assessment. Further studies are needed to clarify these results on a larger group of children, and to control for additional confounding variables. Nonetheless, these preliminary results provide support for the incorporation of regular long-term habilitation into cochlear implant programs for children.
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