
The efficacy of early identification and intervention for children with hearing impairment.

Downs MP; Yoshinaga-Itano C
Department of Otolaryngology, University of Colorado Health Sciences Center, Denver, USA.

From these findings, the inevitable conclusion is that identification of hearing loss by 6 months of age, followed by appropriate intervention, is the most effective strategy for the normal development of language in infants and toddlers with hearing loss. Identification of hearing loss by 6 months can only be accomplished through universal newborn hearing screening. Some questions that arise as a result of these studies include: What can one conclude from the finding that the language skills of children with mild hearing losses are no better than those with greater losses? If the finding holds up, it indicates a great need for investigations into biobehavior theories of language acquisition and into the part played by the prenatal 4 months of hearing. And it also shows a need for answering the question, When does a hearing loss begin?, because it certainly seems that all hearing losses are similar in their outcomes. Can the findings from these studies be used to benefit normally hearing children who are at risk for language delays as a result of limited language environments? Such children suffer from auditory deprivation just as surely as those with hearing losses. If the language skills of the latter children can be brought to normal range by early intervention, the same strategy may help high-risk populations. The efficacy of early intervention is just as valid for these children as it is for the children with hearing impairment. Now that the benefits of early identification of children with congenital hearing loss have been demonstrated, these benefits should be extended to all children who are at risk for language delays, with appropriate interventions applied immediately.
Pediatrics 1998 Nov;102(5):1161-71 (ISSN: 1098-4275)

Language of early- and later-identified children with hearing loss.

Yoshinaga-Itano C; Sedey AL; Coulter DK; Mehl AL

Department of Speech, Language, and Hearing Sciences, the University of Colorado-Boulder, Boulder, Colorado, USA.

OBJECTIVE: To compare the language abilities of earlier- and later-identified deaf and hard-of-hearing children. METHOD: We compared the receptive and expressive language abilities of 72 deaf or hard-of-hearing children whose hearing losses were identified by 6 months of age with 78 children whose hearing losses were identified after the age of 6 months. All of the children received early intervention services within an average of 2 months after identification. The participants' receptive and expressive language abilities were measured using the Minnesota Child Development Inventory. RESULTS: Children whose hearing losses were identified by 6 months of age demonstrated significantly better language scores than children identified after 6 months of age. For children with normal cognitive abilities, this language advantage was found across all test ages, communication modes, degrees of hearing loss, and socioeconomic strata. It also was independent of gender, minority status, and the presence or absence of additional disabilities.

CONCLUSIONS: Significantly better language development was associated with early identification of hearing loss and early intervention. There was no significant difference between the earlier- and later-identified groups on several variables frequently associated with language ability in deaf and hard-of-hearing children. Thus, the variable on which the two groups differed (age of identification and intervention) must be considered a potential explanation for the language advantage documented in the earlier-identified group.
Early intervention for hearing impairment: differences in the timing of communicative and linguistic development.

Robinshaw HM.

Roehampton Institute Research Centre, Downshire House, London, UK.
This paper reports in-depth case study material which illuminates the impact of early aiding on the rate of acquisition of communicative and linguistic behaviours of a small group of severely and profoundly deaf infants (average better ear impairment of 101 dB) aided between 3 and 6 months of age. A comparison is made of each infant's development of gestural and vocal productions between the ages of 6 and 21 months. Data derive from video- and audio-recorded social interaction between deaf and hearing infants and their principal caregivers taken across three contexts. The effects of earlier identification, amplification and fluctuations in early auditory stimulation, on the deaf infants' acquisition of communicative, symbolic and linguistic skills are discussed.