

## INTERVENTION

REFERENCE	DESIGN	RECRUIT-MENT	CASE DEFINITION	SUBJECTS	ASSESSMENT TOOLS	RESULTS	AUTHOR'S CONCLUSIONS
English K, Church G. Unilateral hearing loss in children: an update for the 1990's. Lang Speech Hear Serv Sch. 1999;30:26-31.	Survey	<p>14-item questionnaire printed in 1997 spring issue of Educational Audiology Association and mailed to all members (N = 620).</p> <p>26 audiologists agreed to review their caseloads (4% of the membership).</p> <p>Respondents completed, signed, and returned 1 questionnaire per child to first author.</p>	<p>High frequency PTA* (1, 2, and 4 kHz*) &gt;25 dB* in one ear.</p> <p>High frequency was used in an effort to exclude children with transient conductive hearing loss.</p>	<p>Total: N = 423</p> <p>With UHL*: N = 423</p> <p>224 (53%) males</p> <p>199 (47%) females</p> <p>Controls: N/A</p> <p>Mean age: 11 years, 6 months (14 months-19 years of age).</p> <p>Average age at identification: 5 years, 6 months (birth-16 years of age).</p>	<p>In addition to demographic information, each respondent reported</p> <p>-Age of identification</p> <p>-Etiology</p> <p>-Additional educationally significant disorder</p> <p>-Use of amplification</p> <p>-Nature of special education services provided</p> <p>-Concerns for behavioral problems</p> <p>-Rating of overall academic performance</p>	<p>Results reported for 406 children when those with mental retardation were not included in the sample.</p> <p>46% no special education services beyond "at-risk" identification.</p> <p>54% received additional special education services.</p> <p>Overall Academic Performance: (Data reported on 394 children) 13% above average; 63% average; 24% below average (similar to Oyler et al., 1988, which was 22.8% below average).</p> <p>Males were more likely to have received services than females. Provision of services increased with increase in degree of hearing loss (contrasts with Oyler et al., 1988).</p> <p>Additional <math>X^2</math> showed no significant association between affected ear and overall academic performance; affected ear and special education service; affected ear and sex; or degree of hearing loss and overall academic performance.</p>	<p>Survey indicated that the proportion of children with UHL who were functioning below average in overall academic performance had not changed in 10 years.</p> <p>However, more students were receiving special education services possibly because fewer children were repeating grades (grade repetition is no longer accepted practice).</p> <p>Subjects in this survey who did not receive direct special education services received indirect monitoring support from educational audiologists.</p> <p>Future studies should examine the effects of direct and indirect services.</p>

\* PTA = pure tone average; kHz = kilohertz; dB = decibel; UHL = unilateral hearing loss;

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Gordon-Brannan M, Hodson BW, Wynne MK. Remediating unintelligible utterances of a child with a mild hearing loss. Am J Speech Lang Pathol. 1992;1(4):28-38.	Case study	One client at a university clinic	<p>2 full audiological evaluations between 5<sup>th</sup> and 6<sup>th</sup> birthdays showed significant air-bone gaps in presence of normal tympanograms and slightly elevated acoustic reflexes. Therefore, child appeared to have had a mixed loss.</p> <p>Right ear: rising conductive loss below 1,500 Hz*.</p> <p>Left ear had mild conductive loss below 1 kHz with rising thresholds above 2 KHz*: The threshold at 1 kHz was 5 dB* and at 2 kHz it was 10 dB (within normal limits). The 3 kHz threshold rose to 35 dB, the 4 and 6 kHz thresholds were 55 dB and the 8 kHz threshold was 60 dB.</p>	<p>Total: N = 1</p> <p>With mild hearing loss: N = 1</p> <p>Controls: N/A</p> <p>“Luke,” aged 4 years.</p> <p>Parents first became concerned he might have a speech delay when he was approximately 1 year of age.</p> <p>Hearing tested at 2 years of age, speech-language evaluated at 2 years, 6 months of age.</p> <p>Normal birth and medical history.</p>	APP-R*	<p>Speech first assessed at 2 years, 7 months of age. Treatment initiated at 3 years, 1 month.</p> <p>Three half-hour sessions per week of an adapted multiple phoneme approach (targeting 2-3 singleton consonants per semester rather than all phonemes) produced some improvement in practice words. However, he continued to need considerable prompting and remained highly unintelligible in spontaneous speech after 16 months. Expressive language was about 1 year delayed.</p> <p>Phonological cycles: Underlying principle is phonemes serve as a means to an end for facilitating gradual development of phonological patterns.</p> <p>APP-R administered at onset of phonological cycles therapy provided at 4 years, 6 months. High-severe range for his age. 18% of utterances judged intelligible from speech sample.</p> <p>Amplification: At beginning and end of each session Luke wore a small personal listening device set at a low level. Clinician spoke directly into the microphone.</p>	<p>APP-R administered at end of each semester and again 3 months after dismissal.</p> <p>Intelligibility improved to 98%.</p> <p>Expressive language was about 1 year delayed.</p>

\* Hz = hertz; kHz = kilohertz; dB = decibel; APP-R = Assessment of Phonological Processes-Revised