

# Auditory-Verbal Therapy as an Evidence-Based Practice

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How effective is Auditory-Verbal therapy in producing speech and language outcomes similar to those of typically developing children for individuals with hearing impairment?

# Rationale:

The articles I selected each include evidence regarding the effectiveness of Auditory-Verbal therapy as an intervention technique for children with hearing loss.

This question research is significant because it reviews a therapy technique that is thought to improve speech-language outcomes for children with hearing loss. This can help improve these individual's quality of life by providing stronger communication skills for social interactions, academic achievement, and gainful employment.

This research question has been addressed in a variety of studies, however, much of the research was conducted prior to 2015, suggesting that little information is available on the efficacy of this technique in recent years. This is significant because our understanding of the relationship between speech and language development is still evolving, as is technology for aural rehabilitation.

## Results: Mortazavi & Mortazavi (2017)

- Investigated the effects of an AVT program that consisted of biweekly 20-minute sessions, biweekly group meetings by trainers of kid with hearing loss, parent training once per week, and in home services once per month for 1 year with children aged 6-8yo.
- 80% of children reached a language development level comparable to that of typically developing children (according to results on the TOLD-3)
- Weaknesses of this study include a small sample size (20 subjects), lack of information on whether therapy was conducted by certified Listening and Spoken Language Specialists, and a lack of assessment methods that provide information on speech and language skills in context. Additionally, since this was a poster presentation at a national conference, there could be details from the study that are not apparent in the abstract.

## Results: Bowers (2017)

- Conducted a systematic review of research studies on deaf children with an average age of four years or younger at the start of AVT
- Reviewed literature published in English in academic journals from 2000-2016, and only found 6 articles that met the criteria for inclusion.
- All 6 articles showed some language gains among children who participate in AVT; however, the author concludes that “more research is warranted to strengthen the evidence base” for this practice (4) and determine if the language development of children receiving AVT can “catch up” to that of their typically developing peers.

## Results: Percy-Smith et al. (2018)

- Investigated the efficacy of 3 years of AVT on improving the language skills of Danish children with a cochlear implant when compared to a traditional speech-language therapy approach.
- Found that participants in AVT demonstrated higher scores on three assessments - the Peabody Picture Vocabulary Test (PPVT), the Reynell – Developmental Language Scales edition III (Reynell), and the Viborg Materialet, compared to peers who underwent standard speech-language therapy for the same period of time.
- One potential weakness of this study is the method of testing: some of the tests could not provide a standardized score because they were not normed on the sample population. Additionally, one cannot assume that the same results may be replicated in the United States, due to differing cultures, social norms, and expectations of language use.

## Results: Nikita et al. (2019)

- Explored the effects of bi-weekly AVT sessions for 6-8 months on children from India with cochlear implants.
- Utilized multiple assessment methods, including assessment of language development, speech intelligibility ratings, and Brown's MLU assessment, and found that, while subjects demonstrated improved scores post-therapy, they had not yet met developmentally appropriate language goals.
- One potential weaknesses of the study include the exclusion of “irregular” patients, or those with inactive parental participation. Additionally, one cannot assume that the same results may be replicated in the United States, due to differing cultures, social norms, and expectations of language us

## Results: Mandal et al. (2020)

- Conducted a case study that examined the effects of AVT on a 5 year old child with a right cochlear implant and left ear hearing aid.
- Subject received two 45-minute sessions per week of AVT, and demonstrated improvement in linguistic skills after 15 sessions. However, his language skills were not yet at the level of his typically developing peers.
- Although this study offers evidence that AVT can help support language development in individuals with bimodal hearing, it's design as a 1-subject case study means that results must be verified by further, multi-subject studies, to confirm it's findings.



# Conclusions

Research validates the use of AV as an intervention for individuals with cochlear implants, however few large-scale, randomized studies have been conducted on this topic in recent years.

More information is needed to determine if this therapeutic approach can indeed help clients “catch up” with the receptive and expressive language skills of peers.

# References

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