

Research Articles Supporting Multilingual Service Provision

Adult Studies

Title: <u>Cross-language generalization of language treatment in multilingual people with post-stroke</u> aphasia: A meta-analysis

Population: Multilingual people with post-stroke aphasia

Summary: The results of this study suggest that treating multilingual people with aphasia in one language may generalize to their other languages, especially following treatment that was administered in an early-acquired language and a later-learned language that eventually became the person's language of immersion.

Reference: Goral, M., Norvik, M. I., Antfolk, J., Agrotou, I., & Lehtonen, M. (2023). Cross-language generalization of language treatment in multilingual people with post-stroke aphasia: A meta-analysis. Brain and Language, 246, Article 105326. https://doi.org/10.1016/j.bandl.2023.105326

Title: Improving Patient Safety Systems for Patients With Limited English Proficiency

Population: Patients with Limited English Proficiency (LEP) in Hospital Settings

Summary: Evidence in this study suggests that language barriers may increase the risks to patient safety. It is important for patients with language barriers to have ready access to competent language services. Providers need to collect reliable language data at the patient point of entry and document the language services provided during the patient--provider encounter.

Reference: Bentacourt, J. R., Renfrew, M. R., Green, A. R., Lopez, L., & Wasserman, M. (2012). Improving patient safety systems for patients with limited English proficiency: A guide for hospitals. https://www.ahrq.gov/health-literacy/professional-training/lepguide/index.html

Title: Language proficiency and adverse events in US hospitals: a pilot study

Population: Patients with Limited English Proficiency (LEP) in Hospital Settings

Summary: The results of this study suggest that treating multilingual people with aphasia in one language may generalize to their other languages, especially following treatment that was administered in an early-acquired language and a later-learned language that eventually became the person's language of immersion.

Reference: Divi, C., Koss, R. G., Schmaltz, S. P., & Loeb, J. M. (2007). Language proficiency and adverse events in U.S. hospitals: A pilot study. International Journal for Quality in Health Care: Journal of the International Society for Quality in Health Care, 19(2), 60-67. https://doi.org/10.1093/intqhc/mzl069

Title: Video-Implemented Script Training in a Bilingual Spanish—English Speaker With Aphasia

Population: One bilingual adult with non-fluent aphasia

Summary: This study used video-based script training (VISTA) to help the participant improve speech fluency and accuracy in both languages. The treatment led to better speech production and showed that practicing scripts in one language could help improve the other, although this effect was weaker when the scripts contained many similar words (cognates).

Reference: Grasso, S. M., Cruz, D. F., Benavidez, R., Peña, E. D., & Henry, M. L. (2019). Video-implemented script training in a Spanish-English speaker with aphasia. Journal of Speech, Language, and Hearing Research, 62(7), 2295–2316. https://doi.org/10.1044/2018 JSLHR-L-18-0048

Title: Treatment for Anomia in Bilingual Speakers with Progressive Aphasia

Population: Bilingual adults with progressive anomia, a symptom of primary progressive aphasia (PPA)

Summary: Participants in this study received word-retrieval therapy in both languages, and most showed lasting improvements in naming words up to one year later. The study found that using similar words across languages (cognates) helped transfer learning between languages, thus supporting bilingual therapy even when one language was stronger than the other.

Reference: Grasso, S. M., Peña, E. D., Kazemi, N., Mirzapour, H., Neupane, R., Bonakdarpour, B., Gorno-Tempini, M. L., & Henry, M. L. (2021). Treatment for anomia in bilingual speakers with progressive aphasia. Brain Sciences, 11(11), Article 1371. https://doi.org/10.3390/brainsci11111371

Adult and Children Studies

Title: Should Heritage Languages be Incorporated into Interventions for Bilingual Individuals with Neurodevelopmental Disorders? A Systematic Review

Population: Bilingual individuals with neurodevelopmental disorders

Summary: This systematic review looked at 18 studies on interventions that included heritage languages. The results showed a small but positive effect compared to the results seen in studies that used only the majority language. This supports the idea that using a child's home language in therapy can be beneficial and aligns with inclusive education policies.

Reference: Lim, N., O'Reilly, M. F., Sigafoos, J., Ledbetter-Cho, K., & Lancioni, G. E. (2019). Should heritage languages be incorporated into interventions for bilingual individuals with neurodevelopmental disorders? A systematic review. Journal of Autism and Developmental Disorders, 49(3), 887–912. https://doi.org/10.1007/s10803-018-3790-8

Children Studies

Title: Bilingual Versus Monolingual Vocabulary Instruction for Bilingual Children with Hearing Loss

Population: Bilingual children with hearing loss

Summary: This study found that bilingual vocabulary instruction for Spanish–English-speaking children with hearing loss led to more efficient conceptual vocabulary learning and unique gains in Spanish, without hindering progress in English.

Reference: McDaniel, J., Benítez-Barrera, C. R., Soares, A. C., Vargas, A., & Camarata, S. (2019). Bilingual versus monolingual vocabulary instruction for bilingual children with hearing loss. Journal of Deaf Studies and Deaf Education, 24(2), 142–160. https://doi.org/10.1093/deafed/eny042

Title: <u>Dual language versus English-only support for bilingual children with hearing loss who use cochlear implants and hearing aids</u>

Population: Children with hearing loss who use cochlear implants and hearing aids

Summary: In addition to providing support in English, encouraging home language use and providing treatment support in the first language may help rather than hinder development of both English and the home language in bilingual children with hearing loss who use cochlear implants and hearing aids. In fact, dual-language support may yield better overall and expressive English language outcomes than English-only support for this population.

Reference: Bunta F., Douglas M., Dickson H., Cantu A., Wickesberg J., & Gifford R. H. (2016). Dual language versus English-only support for bilingual children with hearing loss who use cochlear implants and hearing aids. International Journal of Language & Communication Disorders, 51, 460–472. https://doi.org/10.1111/1460-6984.12223

Title: Two-way and monolingual English immersion in preschool education: An experimental comparison

Population: Preschool bilingual children

Summary: Researchers conducted this experimental study comparing the effects of two types of preschool programs— (1) dual-language immersion (or two-way immersion (TWI) and (2) monolingual English immersion (EI)—on children's learning. Both approaches boosted the learning and development of children, including ELL students, as judged by standard score gains. TWI also improved the Spanish language development of English language learners (ELLs) and native English—speaking children without causing losses in English language learning.

Reference: Barnett, W. S., Yarosz, D. J., Thomas, J., Jung, K., & Blanco, D. (2007). Two-way and monolingual English immersion in preschool education: An experimental comparison. Early Childhood Research Quarterly, 22(3), 277–293. https://doi.org/10.1016/j.ecresq.2007.03.003

Title: <u>Bilingual and Home Language Interventions With Young Dual Language Learners: A Research</u> Synthesis

Population: 2- to 6-year-old dual-language learners with language impairment (LI) or risk for LI

Summary: The purpose of this systematic review was to determine what bilingual or home language interventions have been effective for 2- to 6-year-old dual language learners who have language impairment (LI) or are at risk for LI. Emerging trends support bilingual and/or home language interventions for both children with LI and those at risk for LI.

Reference: Durán, L. K., Hartzheim, D., Lund, E. M., Simonsmeier, V., & Kohlmeier, T. L. (2016). Bilingual and home language with young dual language learners: A research synthesis. Language, Speech, and Hearing Services in Schools, 47(4), 347–371. https://doi.org/10.1044/2016 LSHSS-15-0030

Title: <u>Cross-linguistic generalization in the treatment of two sequential Spanish-English bilingual children</u> with speech sound disorders

Population: Two 5-year-old bilingual boys with speech sound disorders

Summary: This study found that treating speech sounds in both Spanish and English led to improvements in both languages. Even sounds that weren't directly targeted showed progress, suggesting that bilingual treatment can positively affect overall speech development.

Reference: Gildersleeve-Neumann, C., & Goldstein, B. A. (2007). Cross-linguistic generalization in the treatment of two sequential Spanish-English bilingual children with speech sound disorders. International Journal of Speech-Language Pathology, 17(1), 26-40. https://doi.org/10.3109/17549507.2014.898093

Title: The effectiveness of therapies for dual language children with developmental language disorder: a systematic review of interventional studies

Population: Dual language children diagnosed with developmental language disorder (DLD)

Summary: In this systematic review, researchers analyzed nine studies. They found bilingual therapy to be just as effective as therapy in the second language alone for improving second-language skills. Bilingual therapy also supported development in the first language, which is essential for maintaining cultural and community connections.

Reference: Harvey, H., Allaway, H., & Jones, S. (2018). The effectiveness of therapies for dual language children with developmental language disorder: a systematic review of interventional studies. International Journal of Bilingual Education and Bilingualism, 24(7), 1043–1064. https://doi.org/10.1080/13670050.2018.1536112

Title: A cross-linguistic approach to treating speech sound disorders in bilingual children

Population: Two bilingual children aged 5;0–5;3 with speech sound disorders

Summary: This study found that when therapy focused only on Spanish (the first language), the children showed improvement in both Spanish and English. This finding suggests that targeting shared sounds across languages can help children generalize speech skills from one language to another.

Reference: Irizarry-Pérez, C. D., Peña, E. D., Bedore, L. M., & Falcomata, T. S. (2023). A cross-linguistic approach to treating speech sound disorders in bilingual children. Clinical Linguistics & Phonetics, 38(5), 433–452. https://doi.org/10.1080/02699206.2023.2219368

Title: Dual Language Intervention for Bilinguals at Risk for Language Impairment

Population: Six bilingual first graders at risk for language impairment

Summary: This study found that an 8-week dual-language intervention improved vocabulary, grammar, and storytelling skills in both languages. The children showed growth in sentence structure and narrative length, but not in overall grammatical accuracy, indicating that structured bilingual support can enhance expressive language.

Reference: Lugo-Neris, M. J., Bedore, L. M., & Peña, E. D. (2015). Dual language intervention for bilinguals at risk for language impairment. Seminars in Speech and Language, 36(2), 133–142. https://doi.org/10.1055/s-0035-1549108

Title: A Culturally and Linguistically Responsive Vocabulary Approach for Young Latino Dual Language Learners

Population: Preschool dual-language learners (DLLs)

Summary: This study found that children who received vocabulary instruction using both Spanish and English (a bilingual approach) learned more words in both languages than those who had been taught only in English. This finding shows that combining languages in one's teaching helps bilingual children build stronger vocabulary in both their home and school languages.

Reference: Méndez, L. I., Crais, E. R., Castro, D. C., & Kainz, K. (2015). A culturally and linguistically responsive vocabulary approach for young Latino dual language learners. Journal of Speech, Language, and Hearing Research, 58(1), 93–106. https://doi.org/10.1044/2014_JSLHR-L-12-0221

Title: Bilingual children with primary language impairment: 3 months after treatment

Population: Bilingual school-age children with primary language impairment (PLI)

Summary: Three months after completing several types of language therapy, the children in this study showed continued improvement in language and cognitive skills. The researchers concluded that gains from therapy can last over time and that progress may vary depending on the language and type of treatment used.

Reference: Pham, G., Ebert, K. D., & Kohnert, K. (2015). Bilingual children with primary language impairment: 3 months after treatment. International Journal of Language & Communication Disorders, 50(1), 94–105. https://doi.org/10.1111/1460-6984.12123

Title: Effects of a Supplemental Spanish Oral Language Program on Sentence Length, Complexity, and Grammaticality in Spanish-Speaking Children Attending English-Only Preschools

Population: Preschool dual-language learners (DLLs)

Summary: In this study, the children who received daily Spanish instruction increased the length and complexity of their sentences in Spanish, compared to those who received only English instruction. This result suggests that even short, daily lessons in a child's home language can strengthen their language skills.

Reference: Restrepo, M. A., Castilla, A. P., Schwanenflugel, P. J., Neuharth-Pritchett, S., Hamilton, C. E., & Arboleda, A. (2010). Effects of a supplemental Spanish oral language program on sentence length, complexity, and grammaticality in Spanish-speaking children attending English-only preschools. Language, Speech, and Hearing Services in Schools, 41(1), 3–13. https://doi.org/10.1044/0161-1461(2009/06-0017)

Title: The Efficacy of a Vocabulary Intervention for Dual-Language Learners With Language Impairment

Population: Preschool dual-language learners with language impairment

Summary: In this study, a bilingual vocabulary program helped children improve vocabulary in both Spanish and English more than English-only or math-focused programs. This finding supports using bilingual instruction to help children with language challenges develop stronger skills in both languages.

Reference: Restrepo, M. A., Morgan, G. P., & Thompson, M. S. (2013). The efficacy of a vocabulary intervention for dual-language learners with language impairment. Journal of Speech, Language, and Hearing Research, 56(2), 748–765. https://doi.org/10.1044/1092-4388(2012/11-0173)

Title: <u>Preschool Language Interventions for Latino Dual Language Learners with Language Disorders:</u> What, in What Language, and How

Population: Preschool dual-language learners with language disorders

Summary: Researchers found that bilingual interventions did not slow down English learning and helped children maintain their Spanish skills. The study recommends tailoring the child's therapy to include both languages and using strategies that fit the child's cultural and linguistic background.

Reference: Simon-Cereijido, Gabriela. (2015). Preschool language interventions for Latino dual language learners with language disorders: What, in what language, and how. Seminars in Speech and Language, 36(2), 154-64. https://doi.org/10.1055/s-0035-1549110