



Webwords 48

Clinical and translational research

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Difficult text, lack of time and competing obligations can render it impossible for many clinical (as opposed to academic, research or student) speech-language pathologists (SLPs) to regularly read our professional literature in a focused and meaningful way. As a consequence, the luxury of absorbing and integrating relevant findings and then applying the new knowledge at work is often denied them. It can be argued that part of the role of continuing professional development (CPD) event presenters is to “distil” the literature for practitioners, but this does not equate to first-hand familiarity with current publications. Given that so many SLPs are in this situation, valuable information that is clinically applicable tends to linger in academe, refusing to cross what Duchan (2001) called the research–practice gap. There are rich rewards to be had, however, for those who resolve to develop a research-reading habit (Highman, 2009) as part of a personal learning plan.

Clinical research

Like clinical practice, clinical research in speech-language pathology (SLP) involves people. Among those people are volunteers who agree to participate, or who consent for those in their care to participate, in meticulously conducted “laboratory” investigations. Through a long and exacting process, if things turn out well, the investigations eventually reveal better means of preventing, classifying, assessing, diagnosing, explaining, treating and understanding human communication and swallowing disorders. The other people involved are the researchers themselves, some of whom are clinicians, the clinicians and educators who implement the research, and the beneficiaries of the research: our patients, clients or students and those close to them, and of course, us.

Translational research

Translational research is a process in which findings from laboratory studies (often involving animal subjects) progress to studies in humans (bench to bedside, or B2B in medical contexts), or in which the implementation of best practices in everyday SLP settings (bedside to practice, or B2P) is hastened. Its four dynamic phases include:

- T1:** Bench to Bedside: a fundamental new discovery is transferred into a clinical application.
- T2:** Bedside to Practice: clinical research delivers evidence of the value of T1.
- T3:** Research that moves the evidence-based guidelines developed in T2 into health practice.
- T4:** Research to evaluate the “real world”, functional outcomes of the novel T1 development.

Another way of conceptualising clinical and translational (C/T) research comes from the people at the **Harvard Clinical and Translational Science Center**¹. They think of it as a stepwise progression from basic scientific discovery, to clinical insights, to implications for practice,

to implications for population health, to improved global health.

Publications

Every step of the way, C/T research is peer reviewed (“juried”) and reported in learned journals and evidence reviews (e.g., the **Cochrane Reviews**²). Not forgetting the **Journal of Clinical Practice in Speech-Language Pathology**³ (JCPSLP), SLPs have a substantial range of periodicals to choose from, including journals from the Mutual Recognition Agreement signatories, **ASHA**⁴, **SAC**⁵ (formerly **CASLPA**), **IASLT**⁶, **NZSTA**⁷, **RCSLT**⁸ and **SPA**⁹. Also in the areas of SLP and audiology there are **Child Language Teaching and Therapy**¹⁰, **Clinical Linguistics and Phonetics**¹¹, **Contemporary Issues in Communication Science and Disorders**¹², **Folia Phoniatica et Logopaedica**¹³, the **Journal of Child Language**¹⁴, the **Journal of Interactional Research in Communication Disorders**¹⁵, **Seminars in Speech and Language**¹⁶, **Topics in Language Disorders**¹⁷ and, new in 2014, the **West Asian Journal of Speech-Language Pathology**¹⁸. Special subject journals are numerous with SLP-related topics that include AAC, aphasia, craniofacial issues, dysphagia, fluency, genetics, hearing, intellectual disability, and literacy through to motor speech disorders, traumatic brain injury, telepractice and voice.

Free and inexpensive access

In addition to the barriers posed by articles that are hard-to-read due to the way they are expressed, restricted time to read, and work–life obligations vying for supremacy, clinicians cite lack of access to the literature, and the high cost of subscriptions as reasons for not reading it. Speech Pathology Australia members are fortunate to have subscriptions to hard copy and electronic versions of the *International Journal of Speech-Language Pathology* and *JCPSLP* as a member benefit. There are also free journals available, some discipline specific and some more general. In the first category are the *Canadian Journal of Speech Language-Pathology and Audiology*, *Communication Matters* from NZSTA, and the *Contemporary Issues in Communication Science and Disorders*, a biannual, peer-reviewed journal of National Student Speech Language Hearing Association (NSSLHA). The **Journal of Neurodevelopmental Disorders**¹⁹, fully open access and published as part of BioMed Central’s portfolio of journals, repays exploration and it is interesting to see some of the “big names” represented in this format. More generally, there are over 4,000 **Free Medical Journals**²⁰ and the **PLOS one Journals**²¹.

Readers pursuing a particular topic area will find that researchers very often upload their own work, and the work of colleagues and collaborators, to their faculty, institutional or personal webpages. For example, ISAAC Australia has a range of free AAC articles to download; The Phonology



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Project, and the Learnability Project provide full text articles about child speech, and Susan Rvachew offers to send reprints of her publications to people who cannot access them via a library. **Google Scholar**²² is a search tool that allows broad searches for scholarly literature: articles, theses, books, and abstracts from academic publishers, professional societies, online repositories and databases, universities and other websites.

The best value for money for those wishing to take out a subscription is an **International Affiliate Membership of ASHA**²³ at less than A\$100 per annum. Among other benefits, affiliates receive *The ASHA Leader* and access to *The ASHA Leader* online, as well as unlimited access to all four of ASHA's online journals: AJA, AJSLP, JSLHR and LSHSS. There is guidance available for those wanting to adopt the discipline of reading journal articles regularly, including the helpful **How to Read a Paper**²⁴ by Srinivasan Keshav.

Implications for practice

Nearly every SLP clinical research paper published has one paragraph or more headed "implications for practice" that speaks directly to clinicians – or at least, tries to. Oddly enough, this can be the most clearly written part of an article, with journal style-guides advising authors to address practitioners in clear and simple language. Make of that what you will! This is also the section that can make readers who are not all that well-acquainted with a topic area shake their heads and say, "So *that's* what it's meant to be about!" Each "implication" includes a small number of recommendations that can be operationalised by a specified readership, or that say what that readership should, could or must not do – based on a study's outcome. "Implications" that truly inform the reader often come with real clinical practice examples (Bartunek & Rynes, 2010).

Increasingly in our field, the implications reflect clinician–researcher partnerships, encouraged by programs such as ASHA's **CLARC**²⁵, launched in September 2013, which aims to enable clinicians and researchers to identify each other for the purpose of forming research collaborations. What a fine thing it would be if CLARC expanded internationally and the "ordinary Australian" reader of the *Journal of Clinical Practice in Speech-Language Pathology* could participate.

References

Bartunek, J. M., & Rynes, S. L. (2010). The construction and contribution of implications for practice: What's in them

and what might they offer? *Academy of Management Learning and Education*, 9, 100–117.

Duchan, J.F. (2001). *History of speech-language pathology in America*. Retrieved 20 October 2013 from <http://www.acsu.buffalo.edu/~duchan/history.html>

Highman, C. (2009). Keeping abreast of the evidence base. In C. Bowen, *Children's speech sound disorders* (pp. 218–223). Oxford: Wiley-Blackwell.

Links

1. <http://catalyst.harvard.edu/pathfinder/>
2. <http://www.cochrane.org/cochrane-reviews>
3. <http://www.speechpathologyaustralia.org.au/publications/jcpslp>
4. <http://journals.asha.org/>
5. http://209.217.105.25/english/resources/cjslpa_home.asp
6. <http://www.jr-press.co.uk/journal-irish-association-speech-language-therapists.html>
7. <http://www.speechtherapy.org.nz/page/about-stt/info-on-publications/>
8. <http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291460-6984>
9. <http://informahealthcare.com/loi/asl>
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16. <https://www.thieme-connect.com/ejournals/journal/10.1055/s-00000076>
17. <http://journals.lww.com/topicsinlanguagedisorders/pages/default.aspx>
18. <http://www.jr-press.co.uk/west-asian-journal-speech-language-pathology.html>
19. <http://www.jneurodevdisorders.com/>
20. <http://www.freemedicaljournals.com/>
21. <http://www.plosone.org/static/information>
22. <http://www.google.com/intl/en/scholar/about.html>
23. <http://www.asha.org/members/international/affiliate.htm>
24. <http://t.co/lxougA1lug>
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