

# Integrating research into practice: is it a matter of pride or prejudice?

## Integração da pesquisa à prática: uma questão de orgulho ou preconceito?

It is a universally acknowledged truth that practice-based research in occupational therapy is increasing globally. This increase in scientific production is essential for occupational therapists as it guides professional reasoning and decision making (HACKETT et al., 2014). Currently, we can choose to submit our research articles to a specific occupational therapy journal or a publication in a related field which would allow for global discoverability of our research, and we can access journals from around the world to find out the best interventions available for return-to-work for stroke survivors or social skill development for children with autism, for example. Although there has been substantial development in the area of evidence-based practice (EBP), the use of research to provide occupational therapy practice support and knowledge translation remains a challenge.

Occupational therapy researchers have drawn attention to potential barriers to EBP and the importance of integrating research into practice (THOMAS; LAW, 2017). Ideally, practitioners need their workplace to ensure the time and space for ongoing uptake of new research knowledge into their occupational therapy practice. This uptake should involve gathering and discussing the best practices available to enhance service delivery for target populations.

The challenge is that practitioners are often multitasking and overwhelmed by large workloads. In addition, in Brazil we have another problem: our language barrier. Despite the increase in Brazilian scientific production, most occupational therapy research is published in international journals with the majority written in English (DAVIS; MALFITANO, 2017).

The quality of the evidence, specifically regarding intervention strategies, is of major concern when implementing the best available evidence to support decision making. Health professionals, in general, and occupational therapists, in particular, have difficulties integrating evidence with their practical experiences, at times leading to the use of interventions lacking evidence or with poor practice outcomes (THOMAS; LAW, 2017).

A hierarchy of levels of evidence was developed precisely for busy practitioners, researchers, and clients as a way to facilitate EBP regarding all the challenges addressed above (HOWICK et al., 2011). Meta-analyses and systematic reviews are known to be the best way to obtain practice information and to keep up-to-date with the evidence; however, can we always trust the “evidence”?

A recent editorial in the *Canadian Journal of Occupational Therapy* (Volume 85, Issue 3, June 2018), written by Farragher et al. (2018) titled “Not all systematic reviews are created equal,” brought us to this question. They argued that systematic reviews could also be susceptible to biases. Thus, when selecting a review to support EBP, we must be able to distinguish those of high quality (SHEA et al., 2017; FARRAGHER et al., 2018). Farragher et al. (2018) used “A Measurement Tool to Assess Systematic Reviews 2” (SHEA et al., 2017) that was created to help researchers and practitioners to evaluate the quality of systematic reviews that included randomized and non-randomized controlled trials.

Based on that protocol, Farragher et al. (2018) appraised the content of a series of four recent systematic reviews (BODISON; PARHAM, 2018; MILLER-KUHANECK; WATLING, 2018; PFEIFFER; CLARK; ARBESMAN, 2018; SCHAAF et al., 2018). These systematic reviews summarized various strategies used with children and youth with sensory processing problems/challenges. What we understood from their critical appraisal was that we must be aware of what we read and how we interpret results of studies considered as presenting the highest level of evidence. It seems that even the “best available evidence”—systematic



reviews and meta-analysis—is not always sufficient for drawing conclusions about treatment strategies that could be integrated into practice. In some cases, when assessing the quality of systematic reviews, one may conclude that there is, in fact, insufficient information to affirm that a treatment strategy was useful or whether the evidence provided is weak or strong.

We do have robust studies that provide us with reliable information regarding the best treatment choice to guide our practice. Most of them point to occupation-based approaches (e.g., SMITS-ENGELSMAN et al., 2018; PARK; MAITRA; MARTINEZ, 2015). Over the past few years, Brazilian occupational therapists have begun contributing research on effectiveness and efficacy of occupational therapy interventions on activity and participation outcomes (ARAÚJO; CARDOSO; MAGALHÃES, 2017; BRANDÃO et al., 2018). Moreover, we can access high-quality systematic reviews and meta-analyses on client-centred, task-oriented, and occupation-based approaches within our field and related fields that provide support for EBP and serve as guides for the implementation of best practices. But are we reading them and applying them to our practice?

## Conclusion

When implementing EBP and integrating study findings and approaches into our practice, we should be able to understand and evaluate the minimum requirements regarding methodological rigour to consider a systematic review as a potential source of best available evidence. As occupational therapists and researchers, we know that we come across many challenges, not only in implementing best practices but also in producing practice-based research of sufficient quality. However, we need to realize that the best choices do not only come from abroad: Ask yourself, how much pride do we show in the growth of Brazilian scientific research, and do we face prejudice when integrating occupation-based approaches that represent the best available evidence into our practice?

## References

- ARAÚJO, C. R. S.; CARDOSO, A. A.; MAGALHÃES, L. C. Efficacy of the cognitive orientation to daily occupational performance with Brazilian children with developmental coordination disorder. *Scandinavian Journal of Occupational Therapy*, Abingdon, v. 20, p. 1-9, 2017.
- BODISON, S. C.; PARHAM, L. D. Specific sensory techniques and sensory environmental modifications for children and youth with sensory integration difficulties: a systematic review. *American Journal of Occupational Therapy*, Bethesda, v. 72, n. 1, p. 7201190040p1-7201190040p11, 2018.
- BRANDÃO, M. B. et al. Does dosage matter? A pilot study of hand-arm bimanual intensive training (habit) dose and dosing schedule in children with unilateral cerebral palsy. *Physical & Occupational Therapy in Pediatrics*, London, v. 38, n. 3, p. 227-242, 2018.
- DAVIS, J. A.; MALFITANO, A. P. S. Supporting research dissemination across languages and cultures: Working beyond Western and Anglocentric lines. *Canadian Journal of Occupational Therapy*, Ottawa, v. 84, n. 4-5, p. 204-208, 2017.
- FARRAGHER, J. F. et al. Not all systematic reviews are created equal. *Canadian Journal of Occupational Therapy*, Ottawa, v. 85, n. 3, p. 1-5, 2018.
- HACKETT, K. et al. Systematic reviews of occupational therapy interventions: summarizing research evidence and highlighting the gaps. *British Medical Journal*, London, v. 77, n. 9, p. 479-482, 2014.
- HOWICK, J. et al. *The 2011 Oxford CEBM evidence levels of evidence: introductory document*. Oxford: Oxford Centre for Evidence-Based Medicine, 2011.
- MILLER-KUHANECK, H.; WATLING, R. Parental or teacher education and coaching to support function and participation of children and youth with sensory processing and sensory integration challenges: a systematic review. *American Journal of Occupational Therapy*, Bethesda, v. 72, n. 1, p. 7201190030p1-7201190030p11, 2018.
- PARK, H. Y.; MAITRA, K.; MARTINEZ, K. M. The effect of occupation-based cognitive rehabilitation for traumatic brain injury: a meta-analysis of randomized controlled trials. *Occupational Therapy International*, London, v. 22, n. 2, p. 104-116, 2015.

PFEIFFER, B.; CLARK, G. F.; ARBESMAN, M. Effectiveness of cognitive and occupation-based interventions for children with challenges in sensory processing and integration: a systematic review. *American Journal of Occupational Therapy*, Bethesda, v. 72, n. 1, p. 7201190020p1-7201190020p9, 2018.

SCHAAF, R. C. et al. Efficacy of occupational therapy using Ayres Sensory Integration®: a systematic review. *American Journal of Occupational Therapy*, Bethesda, v. 72, n. 1, p. 7201190010p1-7201190010p10, 2018.

SHEA, B. J. et al. AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both. *British Medical Journal*, London, v. 358, p. 1-9, 2017.

SMITS-ENGELSMAN, B. et al. Evaluating the evidence for motor-based interventions in developmental coordination disorder: a systematic review and meta-analysis. *Research in Developmental Disabilities*, Amsterdam, v. 74, p. 72-102, 2018.

THOMAS, A.; LAW, M. Research utilization and evidence-based practice in occupational therapy: a scoping study. *American Journal of Occupational Therapy*, Bethesda, v. 67, n. 4, p. e55-e65, 2017.

**Clarice Ribeiro Soares Araújo<sup>a,b</sup>, Débora Ribeiro da Silva Campos Folha<sup>c,d</sup>, Jane A. Davis<sup>e</sup>,  
Tatiana Barcelos Pontes<sup>f</sup>**

<sup>a</sup>Departamento de Terapia Ocupacional, Universidade Federal da Paraíba – UFPB, João Pessoa, PB, Brasil.

<sup>b</sup>Universidade Federal de Minas Gerais – UFMG, Belo Horizonte, MG, Brasil.

<sup>c</sup>Departamento de Terapia Ocupacional, Universidade do Estado do Pará – UEPA, Belém, PA, Brasil.

<sup>d</sup>Universidade Federal de São Carlos – UFSCar, São Carlos, SP, Brasil.

<sup>e</sup>Department of Occupational Science and Occupational Therapy, University of Toronto, Toronto, ON, Canada.

<sup>f</sup>Departamento de Terapia Ocupacional, Universidade de Brasília – UnB, Brasília, DF, Brasil.