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EDITORIAL

Knowledge translation in pediatric rehabilitation: expanding access to scientific knowledge

Egmar Longo[a,*], **Élida Rayanne Viana Pinheiro Galvão**[b], **Haryelle Náryma Confessor Ferreira**[c], **Ana Raquel Rodrigues Lindquist**[d], **Keiko Shikako-Thomas**[e]

[a] *Universidade Federal do Rio Grande do Norte (UFRN), Trairi Health Sciences Faculty, Physical Therapy Course, Santa Cruz, RN, Brazil*
[b] *Universidade Federal do Rio Grande do Norte (UFRN), Trairi Health Sciences Faculty, Rehabilitation Sciences Program, Santa Cruz, RN, Brazil*
[c] *Universidade Federal do Rio Grande do Norte (UFRN), Trairi Health Sciences Faculty, Public Health Program, Santa Cruz, RN, Brazil*
[d] *Universidad Federal do Rio Grande do Norte (UFRN), Physical Therapy Master's and Doctoral Programs, Physical Therapy Course, Natal, RN, Brazil*
[e] *McGill University, School of Physical and Occupational Therapy, Occupational Therapy Program, Montreal, Canada*

There is a growing need to integrate the results of research into clinical practice. In childhood disability rehabilitation, this interest has been partly driven by the expanding knowledge of childhood disabilities. With the increasing use of the International Classification of Functioning, Disability and Health (ICF – World Health Organization, 2007), rehabilitation models are no longer centered exclusively on the clinical condition. Instead, they seek to implement the social model of disability, considering the child's environment and personal factors that influence health and activities within this context.[1] Despite the growing interest in bridging research into practice, information produced in research can take up to 17 years to be implemented in practice. This causes a significant delay in the impact of research on clinical practice and, consequently, on the quality of life of children with disability.[2]

To minimize this delay in translating knowledge into clinical practice, it is imperative that health care professionals must combine relevant high-quality clinical research with clinical expertise and patient preferences. In addition, clinicians should understand how to formulate clinical questions, conduct effective database searches, assess the methodological quality of relevant studies, and identify evidence for therapeutic decisions.[3,4]

Interest in Knowledge Translation (KT) has been growing worldwide, due to its important role in disseminating the latest scientific knowledge, thereby optimizing clinical practice as well as social and health policies. The term KT, established by the Canadian Institutes of Health Research describes a process integrating the synthesis, dissemination, exchange and application of knowledge in order to improve, implement and strengthen health systems.[5]

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[*] Corresponding author.
E-mail: egmarlongo@yahoo.es (E. Longo).

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Although the need for KT is evident, implementing new research evidence into effective changes in clinical care requires a structured approach to ascertain that the knowledge implemented will be sustained and will generate the expected results in patient care and outcomes. In order to facilitate KT in pediatric rehabilitation for a transformative impact, all stakeholders must be involved in identifying the key issues that require evidence support and the best strategies to implement them into practice. Researchers, health care professionals, educators, health care managers, social services administrators, community agencies and children with disabilities and their families must be involved in the process.[6] Childhood disability research groups from several countries have promoted the exchange of knowledge and encouraged professionals to identify solutions to connect clinical efforts and research in outcomes that matter the most for children and their families. One example of a stakeholder-driven strategy is the implementation of the ''F-WORDS in childhood disabilities''.[7] The F-WORDS is composed by six key outcomes in childhood rehabilitation (Function, Family, Fitness, Friends, Fun and Future). The F-words address the context of the child in rehabilitation, and change it using strategies developed in conjunction with professionals, family members and patients.[7]

The use of this comprehensive view of childhood disability, and the engagement of different stakeholders in the implementation of research-based evidence into practice have increased over time in a number of countries, prompting changes in the concepts of intervention and rehabilitation. Moreover, research on childhood disabilities may also inform effective public policies to support the rehabilitation process, such as leisure promotion and the creation of universally accessible public spaces, as well as the creation of public health programs and campaigns that include the needs of children with disabilities and their families.[8] To that end, it is important to devise strategies that strengthen the entire knowledge-to-action cycle.

Some simple dissemination strategies include providing lay summaries of research studies through leaflets, blogs, and social and audiovisual media. More complex strategies include the development of clinical practice guidelines, systematic reviews and manuals to implement evidence-based rehabilitation interventions. In addition, there is a need for environmental scans to identify barriers and facilitators to implement evidence into specific clinical contexts, as well as the development hybrid studies evaluating the impact of interventions in both at the health systems level as well as at the level of the patient. These strategies may also involve clinicians and researchers in sharing of best practices among different clinical settings. Finally, mapping existing policies and programs that can benefit children and their families, and creating public spaces for dialog and exchange in both clinical and public settings are strongly needed.

The notion that KT is an irreversible practice in childhood disability research can be transformative of future research and clinical practice. It should inform the design of new studies and the development of new methods to ascertain that knowledge is relevant readily translated into practices that are likely to improve the quality of life and health of children with disabilities and their families.[5,6,8]

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