

Want your systematic review to be used by practitioners? Try this!

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This issue of *KT Update* presents the first in a series of brief articles by Dr. Marcel Dijkers, rehabilitation researcher at the Mount Sinai School of Medicine. Here Dr. Dijkers suggests strategies to make it more likely that practitioners will actually use systematic reviews that researchers create.

The research literature relevant to disability and rehabilitation is enormous, and keeps growing year after year. Clinicians, researchers, educators and others will readily agree that it is unreasonable to expect that the typical practitioner has the time (and commonly, the expertise) to keep up with this flood. Alternative methods have been developed to assist them to be aware of the most significant developments relevant to their practice (Dijkers, Murphy, & Krellman, 2012) and to help them implement what is more effective, more efficient, or less risky than their current interventions. Among these are knowledge brokers (Ward, House, & Hamer, 2009), “bedside” evidence-based practice (EBP) approaches (Dijkers, Murphy, & Krellman, 2012), EBP journals that cull the most relevant and best research and present it in a clinically-useful way, systematic reviews (with or without meta-analysis), and clinical practice guidelines (CPGs).

Systematic reviews (SRs) offer a synthesis of research relevant to a specific clinical question, carefully selected to be applicable (e.g., using the PICOT specification: population, intervention, comparator, outcome and timing; Thabane, Thomas, Ye, & Paul, 2009) and of high quality (using a formal and systematic assessment of research design; Dijkers et al., 2012). CPGs are based on evidence, where available, but also include clinical experience, expert opinion, health system feasibility, and patient/client preferences to offer specific recommendations for practitioner action. Ideally, this helps overcome the problem a clinician may have with a SR: *Now that I know what the research has to say with respect to my question...How do I translate that into new ways to assess, diagnose, treat or manage my patients?* For a practitioner other than a clinician, the key question may be: *How do I transform that into policies and procedures that improve the state of affairs in the domain of my responsibility?*

Not all SRs present such a problem, and certainly most SRs are sent into the world without an accompanying CPG. Researchers, clinicians, and other practitioners (ideally assisted by statisticians and methodologists) continue to summarize the primary literature, and it is estimated that one SR may be published for every eight primary studies (Ketcham & Crawford, 2007). Researchers interested in this type of enterprise not only should make sure that the highest-quality methodology is used to find, assess,

abstract and synthesize the primary research, but also that recommendations from the resulting report can be used by practitioners.

How does one do that? A recent SR investigated what facilitators make it more likely that clinicians actually use SRs. Wallace, Byrne and Clarke (2012) did a broad literature search and found 15 studies that had used focus groups, key informant interviews, and/or surveys to get the opinions of health care providers (mostly physicians and nurses) on what facilitated the “uptake of evidence from systematic reviews.” They list 17 categories of facilitators—most of which, unfortunately—are things the authors of a SR cannot influence. These are elements well known from the literature on the adoption of innovations, such as motivation of the potential users, when they were trained, their familiarity with computers, and training in the appraisal of SRs. Availability of peer group support, users' position within an organization, and the value that an organization places on SRs are other possible facilitators.

So what is really in the hands of the SR authors? The following may be listed:

- **Usefulness.** Of course, this is in the eye of the beholder (for example, what is a physical therapist going to do with a beautiful review of neuropsychological tests of executive function?), but it may also refer to utility within its class. A translation of “usefulness” may be: how far from the ivory tower is this SR, to what degree is it practical, making concrete recommendations (even if based on less than perfect evidence) that the users can apply without reorganizing their entire practice? Although Wallace et al. (2012) do not suggest the following, it may be fairly easy to do. Provide your draft SR in rehabilitation/disability (such as of assessment or intervention) to a small number of clinicians “in the trenches” and ask them to give feedback on usefulness and ways to enhance uptake. The likelihood of positive reviews is enhanced, of course, if you started your systematic review not with an eye to the availability of primary studies, but by choosing a clinical question of concern to these rank and file professionals.
- **Current, timely, transparent, and contextualized content.** This may be another way of defining usefulness. With the ever-increasing number of primary studies, a SR risks becoming outdated in a few years, even in a relatively slow-moving area such as rehabilitation. While writing a SR may look like an “easy” project, doing it well takes a lot of time, and many a project gets delayed, but the literature search is not updated. Add the typical delays in peer review and publishing, and a SR may be printed two to four years after the close of the information retrieval. *Transparency* of the review—including straightforward information on who was involved (conflicts of interest, anyone?); exactly how the

evidence was found, evaluated and synthesized; what values and assumptions played a role in making recommendations—is key to user ability to understand and trust the review. *Contextualized* refers to customization to the unique local situation of the reader; something that is easier said than done, unless the authors have a preexisting knowledge translation relationship to the readers.

- **Ease of use and highlighted content** may be combined: practitioners want to find what they need in a SR quickly and easily. The SRs of the Cochrane and Campbell Collaborations are well known for their pages and pages of methodology descriptions, which often are followed by no conclusions and no recommendations because there were no RCTs, and any lesser grade of evidence is not considered. Clinicians have little interest in methodology, but want to get to “the meat” fast. One study used by Wallace et al. (2012) suggests a tripartite format for reporting a SR: a one-pager with take-home messages, a three-page executive summary, and a 25-page full report.
- **Mode of delivery.** Availability in an electronic format (in addition to paper) is often preferred, possibly because users can search the SR quickly to find important information.
- **Credibility and reliability of presentation** (“with recognizable logos”). The addition of this last phrase suggests that clinicians look for reliability of a SR not only based on its content, but also *where it originated*. Researchers may accommodate them by publishing in the journals they trust, including as coauthors clinical authorities they trust, and even better, under the auspices of a professional organization. Another option may be to have an independent panel of clinicians and researchers that can peer review the SR (as is done in many reputable SR and CPG commissioning organizations).

Conclusion

Not having one’s work read and used is always painful. The authors of SRs can assure that their colleague-researchers will look upon their work approvingly by using the best methods to achieve applicability and quality (Task Force on Systematic Reviews and Guidelines, 2011). Getting it used by practitioners may take a few more steps. Give it a try!

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