Finding and Using Best Evidence for Rehabilitation

Susan W. Salmond, EdD, RN[a,*], Cheryl Holly, EdD, RN[b], Jane Smith, DNP, RN[c]

KEYWORDS

• Systematic review • Evidence-based health care • Rehabilitation • Delirium • Hip fracture

KEY POINTS

- Systematic reviews use different approaches to synthesize or pool data from critically appraised published and unpublished studies on a focused clinical question, ultimately providing a comprehensive summary of evidence that should be used in clinical decision making.
- A structured approach to searching for systematic reviews should be used for efficiency and efficacy.
- Evidence summaries from systematic reviews can provide critical data for identifying risk factors, screening, and prevention of delirium in postoperative hip fracture patients.

Evidence-based practice is a decision-making approach in which clinicians integrate best research evidence with their clinical expertise, the patient's preferences and values, and the clinical context to achieve the best patient outcomes.[1] With the demand for improved experiences of care, improved outcomes, and greater efficiency/lower costs, the need for an evidence-based approach to care in rehabilitation settings has never been more urgent. However, with 1500 new scientific articles added to MEDLINE each day and more than a 460% increase in the past 30 years (3376 to 18,928) in the annual number of publications using the term "rehabilitation" alone,[2] it is impossible for even the most skilled rehabilitation nurse to keep current with research; hence the need for systematic reviews. A high-quality systematic review summarizes the best

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[a] Northeast Institute for Evidence Translation and Synthesis, Rutgers School of Nursing, 65 Bergen Street, Suite 1141, Newark, NJ 07107, USA; [b] Northeast Institute for Evidence Translation and Synthesis, Rutgers School of Nursing, 65 Bergen Street, Suite 1136, Newark, NJ 07107, USA; [c] Morristown Memorial Hospital, Ortho/Trauma, 100 Madison Avenue, Morristown, NJ 07962, USA

* Corresponding author.

E-mail address: salmonsu@sn.rutgers.edu

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available research on a specific topic, which results in a key source of information for healthcare system decision-making and determining clinical healthcare policy, and should include a set of recommendations to optimize patient care.[3,4] This article discusses how to find the best available evidence for rehabilitation settings and then demonstrates the use of best available evidence through a high-impact case study: delirium in an elderly patient with hip fracture.

Systematic reviews, a secondary form of research, use different approaches to synthesize or pool data from critically appraised published and unpublished studies on a focused clinical question, ultimately providing a comprehensive summary of evidence. From this summary, recommendations for care, or best practice, emerge. For example, a nurse working with adult clients with low back pain may be asked whether there would be any value to participating in a yoga class. A review of individual studies would find different sample sizes with often conflicting results, some saying it works, some saying it does not. The clinician is left confused. However, a well-designed systematic review can retrieve a comprehensive scope of publications from multiple data bases, as well as unpublished studies. These studies are critically appraised for scientific rigor, so that the final review includes studies that both match the query's criteria and are deemed scientifically reliable. Using a systematic review eliminates the need to read each individual study and attempt to draw conclusions. In this case, a search of the Cochrane database is an appropriate starting point because yoga is considered an intervention, and the Cochrane Library focuses predominantly on systematic reviews of therapy or therapeutic intervention. This search found a study protocol entitled yoga treatment of chronic nonspecific low back pain' that had been published, although the full review was not yet complete.[5] A search of MEDLINE, the database of the National Library of Medicine, using the keywords "yoga," "low-back pain," and "systematic review" found 2 systematic reviews addressing the topic. Both reviews were critically appraised using the Critical Appraisal Skills Programme tool for appraising systematic reviews (http://www.casp-uk.nt/). The article entitled "A Systematic Review and Meta-analysis of Yoga for Low Back Pain" by Cramer and colleagues[6] met the criteria for rigor using this tool. These investigators reported the impact of yoga exercise on key patient-centered outcomes and found strong evidence for short-term effects on pain, back-specific disability, and global improvement. There was also strong evidence for a long-term effect on pain, and moderate evidence for a long-term effect on back-specific disability. Based on this evidence, the nurse in our example would recommend yoga exercise to this client and should consider developing resources on available classes to promote to other clients.

WHERE TO FIND SYSTEMATIC REVIEWS

A methodical search moving from synopses to databases is likely to be the most efficient and efficacious approach for finding the evidence and is summarized in **Table 1**.[7]

Synopses

For busy clinicians, a beginning point may be to search for synopses of systematic reviews. Synopses of systematic reviews are short summaries providing a critical appraisal of the science along with a brief examination of the evidence. Synopses are published in journals such as *Evidence Based Nursing*, *International Journal of Evidence-Based Healthcare*, and *ACP Journal Club*. A Web site providing synopses of systematic reviews is the Database of Abstracts of Reviews of Effectiveness (DARE). The DARE site focuses solely on studies of effectiveness. Using DARE to research back pain, a total of 334 synopses were identified focusing on a range of