

REVIEW ARTICLE

A collaborative effort to apply the evidence-based review process to the field of nutrition: challenges, benefits, and lessons learned^{1,2,3}

Ethan M Balk, Tanya A Horsley, Sydne J Newberry, Alice H Lichtenstein, Elizabeth A Yetley, Howard M Schachter, David Moher, Catherine H MacLean and Joseph Lau

¹ From the Tufts-New England Medical Center Evidence-based Practice Center, Institute for Clinical Research and Health Policy Studies, Tufts-New England Medical Center, Boston, MA (EMB and JL); the University of Ottawa Evidence-based Practice Center (TAH and DM), the Chalmers Research Group (TAH and DM), and the Department of Pediatrics (HMS), Children's Hospital of Eastern Ontario Research Institute, Ottawa, Canada; the Southern California/RAND Evidence-based Practice Center, RAND Health, Santa Monica, CA 90407 (SJN and CHM); the Cardiovascular Nutrition Laboratory, Jean Mayer USDA Human Nutrition Research Center on Aging, Tufts University, Boston, MA (AHL); the Office of Dietary Supplements, National Institutes of Health, Bethesda MD 20892 (EAY); and the Faculty of Medicine, University of Ottawa, Ottawa, Canada (HMS)

Evidence-based systematic reviews evaluating dietary intake and nutritional interventions are becoming common but are relatively few compared with other applications. Concerns remain that systematic reviews of nutrition topics pose several unique challenges. We present a successful collaboration to systematically review the health effects of a common nutrient, n-3 (or omega-3) fatty acids, across a wide range of clinical conditions. More generally, we discuss the challenges faced and the lessons learned during the review, the benefits of systematic review of nutritional topics, and recommendations for conducting and reviewing nutrition-related studies. Through a structured but flexible process, 3 Evidence-based Practice Centers in the Agency for Healthcare Research and Quality program produced 11 reports on a wide range of n-3 fatty acid-related topics. An important resource has been created, through which nutrition and dietetics researchers, clinical dietitians and nutritionists, clinicians, and the general public can understand the state of the science. The process identified challenges and problems in evaluating the health effects of n-3 fatty acid consumption, highlighted challenges to reviewing the human nutrition literature, and yielded recommendations for future research. The goals of these systematic reviews, the processes that were used, the benefits and limitations of the collaboration, and the conclusions of the reviews, including recommendations for future research, are summarized here.

Key Words: Evidence-based medicine • systematic review • nutrition • dietary supplements • diet • fatty acids • n-3 fatty acids

This article has been cited by other articles:

This Article

- ▶ [Full Text](#)
- ▶ [Full Text \(PDF\)](#)
- ▶ [Purchase Article](#)
- ▶ [View Shopping Cart](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)
- ▶ [Citation Map](#)

Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)
- ▶ [Get Permissions](#)

Citing Articles

- ▶ [Citing Articles via HighWire](#)
- ▶ [Citing Articles via Google Scholar](#)

Google Scholar


- ▶ [Articles by Balk, E. M.](#)
- ▶ [Articles by Lau, J.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Balk, E. M.](#)
- ▶ [Articles by Lau, J.](#)

Agricola

- ▶ [Articles by Balk, E. M.](#)
- ▶ [Articles by Lau, J.](#)



Journal of Nutrition ▶ [HOME](#)

A. H. Lichtenstein, E. A. Yetley, and J. Lau
Application of Systematic Review Methodology to the Field of Nutrition
J. Nutr., December 1, 2008; 138(12): 2297 - 2306.
[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)



D. Moher and A. C. Tricco

Issues related to the conduct of systematic reviews: a focus on the nutrition field

Am. J. Clinical Nutrition, November 1, 2008; 88(5): 1191 - 1199.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)



A. Cranney, H. A. Weiler, S. O'Donnell, and L. Puil

Summary of evidence-based review on vitamin D efficacy and safety in relation to bone health

Am. J. Clinical Nutrition, August 1, 2008; 88(2): 513S - 519S.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)