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# Evidence Base for the Use of Selected Complementary and Alternative Therapies by Patients With Diabetes

### **Preface**

Ruth Lindquist, PhD, RN, ACNS-BC, FAAN, and Byron Hoogwerf, MD, FACP, CDE, FACE, **Guest Editors** 

Complementary and alternative medicine (CAM) and associated therapies are getting increased attention as growing numbers of Americans are exploring their use. The term "complementary medicine" refers to therapies that are used with or taken in conjunction with allopathic Western medicine. The term "alternative therapies" refers to therapies that are considered nontraditional, non-Western therapies that are used instead of allopathic medicine. The term "integrative medicine" is the more current designation of such non-Western therapies and systems of care. The term is inclusive and provides a more comprehensive consideration of a blending or integration of therapies used in Western and non-Western systems of care. However, the term "CAM" is perhaps the most familiar and is used more commonly throughout the articles in this Diabetes Spectrum From Research to Practice section.

CAM therapies are growing in popularity among both the public and health care professionals. In fact, it has been reported that annual visits to providers of CAM therapies now outnumber visits to primary care physicians.1 The annual National Health Survey in 2007 found that 38.8% of adults and 11.8% of children in the United States reported use of a form of CAM in the previous 12 months.<sup>2,3</sup>

The frequency of CAM use demands increased familiarity with the range of therapies by both patients and providers to ensure that safety is maintained, interactions among therapies are anticipated to minimize possible adverse effects, and the full benefits of therapies of Western and non-Western origin may be realized. The CAM therapies selected for discussion in this research section are ones that have, in our view, particular relevance to people with diabetes and that have both the potential likelihood of benefit and—equally important the possibility to do harm if misused. Furthermore, we have selected therapies that have been demonstrated to be of popular interest and that are likely to be encountered in practice.

There is growing interest in lifestyle approaches to stress reduction and in health practices such as physical activity; interest is also strong in the areas of dietary supplements and herbal remedies to enhance health and well-being. The availability of CAM therapies and services has been associated with increased consumer satisfaction. However, there is concern about untoward effects of prescribed drug therapy and herbal supplement interaction; overuse of therapies; or misuse and adverse side effects and outcomes. A solid evidence base for use of CAM would go far toward answering the questions of consumers and providers regarding safety, as well as help to evaluate cost-effectiveness for third-party payment or out-ofpocket costs.4

This research section begins with an article focused on lifestyle counseling of patients with diabetes inclusive of CAM (p. 203). In this article, author Patti Geil, MS, RD, FADA, CDE, emphasizes that all patients should be gueried about their use of CAM therapies, including their use of overthe-counter preparations. However, health care providers should consider not only the safety of the concomitant use of CAM therapies, but also the potential benefits that CAM therapies could offer to people with diabetes. Geil offers practical advice for counseling and collaborating on patients' wise use of CAM therapies.

The next articles, by Laura Shane-McWhorter, PharmD, BCPS, FASCP, BC-ADM, CDE (p. 206) and Joe M. Chehade, MD, Mae Sheikh-Ali, MD, and Arshag D. Mooradian, MD (p. 214), focus on botanical/ biological therapies and selected vitamins and minerals and herbal extracts, respectively. These articles provide outstanding updates on the evidence—or often a lack of or only limited evidence—underlying the use of these therapies. Indeed, in many cases, the evidence is sparse, with few definitive trials supporting benefits of use for these substances, particularly for people with diabetes.

However, perhaps as important are studies providing evidence—although limited—of the safety of their use, particularly when used in conjunction with other medications by people with diabetes. These two articles help readers understand the array of biological agents commonly used by patients and provide information that may be relevant to their patients' health and safety. The authors emphasize the importance of assessing the combined use of these non-Western therapies with traditional therapies to avoid potential adverse effects. They also review and discuss existing evidence in the current literature regarding the benefits of these therapies. In working with patients who have access to a world of opportunity to take prescription and nonprescription substances, it is important to educate and counsel patients about the potential risks and benefits of using a variety of biological substances. The ability to answer patients' questions or to offer referrals is vital.

Healthy lifestyles for people who have the diagnosis of diabetes or who have pre-diabetes is a topic of interest to growing numbers of Americans. Our fourth article, by Ulf G. Bronas, PhD, ATC, ATR, et al. (p. 220), reviews the role of physical activity in diabetes, with a special emphasis on nontraditional movement therapies such as tai chi, qigong, and yoga. The authors examine the potential effects of such forms of exercise on glycemic control for people with impaired glucose tolerance and type 2 diabetes. These nontraditional therapies are popular, and thus it is important that evidence of their effects on and applicability to diabetes are examined. The authors conclude, attendant with the obvious interest in these forms of physical activity, that more research in this area is clearly required.

Stress is commonplace in our modern world. Meditation, especially Mindfulness-Based Stress Reduction (MSBR),<sup>5</sup> has become popular and widely practiced; its potential for use by people with diabetes is evaluated in our final article by Robin R. Whitebird, PhD, MSW, et al. (p. 226). Their review documents the rising public interest in meditation and related strategies for stress management and the need for carefully designed trials to determine the effects of MSBR and related interventions on such outcomes as glycemic control, stress management, and quality of life in diabetic patients. However, strong evidential scientific support specific to the use of MBSR by people with diabetes is woefully lacking; more research is also needed in the area.

We hope that the content in this issue will be valuable to readers who seek to provide effective, up-to-date, high-quality care to patients with diabetes. We also hope that this issue provides foundational evidence-based information to underlie the counsel and care of diabetic patients, especially regarding the use of CAM therapies.

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