Mindfulness Training Lowers Diabetes-Related Distress and HbA_{1c} in US Veterans

Written by Brian Hoyle

A small study has indicated the effectiveness of mindfulness meditation—the nonjudgmental focus on the present moment—in lessening diabetes-related distress in US veterans with diabetes and in lowering HbA_{1c} throughout 3 months. Monica DiNardo, PhD, VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania, USA, presented the results of this study.

Of the 4 million veterans registered in the Veterans Health Administration, 25% are diagnosed with diabetes [US Department of Veteran Affairs. *QUERI–Quality Enhancement Research Initiative* 2014]. Diabetes-related distress can detract from the self-management of the disease, resulting in depression and diminished control of blood glucose. Health assistance efforts by the 125 Veterans Administration centers across the United States include complementary and alternative medicine programs or referrals. These centers, however, are used mainly for pain control and posttraumatic stress disorder. Resources are limited for inclusion of the large number of veterans with diabetes, so diabetes-related distress is not currently being addressed.

Dr. DiNardo and her colleagues noted the absence of studies concerning mindfulness meditation for diabetes-related distress in US veterans. The present study, Mindfulness Stress Reduction in Diabetes Education [Mind-STRIDE], assessed the feasibility of a brief (90-minute) meditation-based intervention on 28 veterans. The veterans included in the study had both type 1 (n = 6; 21.4%) and type 2 (n = 22; 78.6%) diabetes, with a duration of diabetes of 18.2 years (range, .5 to 55 years). The participants' diabetes medication regimen had not changed for at least the previous month.

In the mindfulness training, participants learned techniques to reduce stress through practical methods, such as focused breathing and mindful movement. The initial intervention session consisted of a group discussion focusing on how to live with diabetes, training on how to perform mindfulness meditation, and tips and skills for continuing meditation at home (Table 1).

The participants were given a diary and a CD for home practice. They were asked to spend 10 to 15 minutes, 5 or 6 days a week for 3 months practicing at home. Table 2 summarizes evaluations completed prior to the intervention session, 1 month later at the time of a booster intervention session, and 2 months after that.

The 28 veterans had a mean age of 62.8 years (range, 40 to 76 years). The majority (n = 19; 68%) were Caucasian, and nearly all (n = 27; 96%) were men. Body mass index was 33.2 ± 7.04 kg/m^2, and the HbA_{1c} level was 8.35 (± 1.60). Of the 28 individuals, 20 (71%) completed the 3-month study, with 11 (39%) maintaining the diary throughout their participation.

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Table 1. Aspects of Mindfulness Meditation

Observing	Recognizing your thoughts, sensations, and emotions
Describing	Expressing your emotions and feelings
Acting with awareness	Focusing on the present moment
Nonjudging	Having a nonevaluative attitude
Nonreactivity	Permitting thoughts and feelings to come and go

Table 2. Pre- and Postintervention Measures

Concept	Instrument
Mindfulness	Five Facet Mindfulness Questionnaire (FFMQ)
Perceived stress	Perceived Stress Scale (PSS-10)
Diabetes-related distress	Problem Areas in Diabetes Survey (PAID)
Diabetes coping	Diabetes Empowerment Scale—Short Form (DES-SF)
Satisfaction	Satisfaction questionnaires, diaries, and field notes
Diabetes self-management	Diabetes management behaviors
Self-care goals	American Association of Diabetes Educators 7 Self-Care Behaviors Assessment
Engagement	Home practice diaries
Metabolic control	HbA_{1c} determination

Diabetes-related distress decreased by about 19% at 1 month ($p < .01$) and 41% at 3 months ($p < .01$). Awareness, coping, self-management, and self-care scores increased throughout the 3-month study, with the latter 2 scores being significantly greater at 3 months than prior to the first intervention ($p < .01$ for both). Baseline and 3-month HbA_{1c} data were 8.4% and 7.3%, respectively, which was a significant decrease ($p < .01$).

Study limitations include the small number of subjects and an uncontrolled design. Although the results cannot be generalized, the study establishes the feasibility of mindfulness meditation in easing diabetes-related distress. Larger controlled studies using real-time recording of daily meditation sessions are needed.

Partnership Between Diabetes Educators and Insurers Can Improve Patient Outcomes

Written by Lynne Lederman

The increasing number of patients with diabetes and the pressure to make health care more accountable have contributed to the need for more patient-oriented approaches to effectively manage diabetes. Because of this need, health care providers not only pay for health care costs but also directly manage the health plans of their members. Patricia Johnson, RN, University of Pittsburgh Diabetes Institute and University of Pittsburgh Medical Center (UPMC) Health Plan, Pittsburgh, Pennsylvania, USA, and colleagues presented the Leveraging Education and Diabetes Support (LEADS) program, an approach to using certified diabetes educators (CDEs) as a clinical and community resource for health plans.

The LEADS program was intended to develop a chronic disease management model using CDEs as the "hub" resource of a network of insurer-driven diabetes care management services. The program was initiated 2 years ago and funded by the UPMC Health Plan. Two CDEs established best practices for consistent communication, competency development, and support and collaboration with caregivers and patient members.

In supporting the practice-based care managers, the CDEs coordinated, anticipated, and assisted in the care management and support of UPMC Health Plan members in primary care practices. Support included helping physicians address patient knowledge gaps concerning condition, education, and lifestyle management. CDEs coordinated the development of care plans between clinical support staff and primary care physicians. CDEs contacted patients directly and indirectly using both traditional and novel means (eg, in person, e-mail, calls, electronic medical record, telemedicine) to provide education and support.

Supporting the role of the health management lifestyle coaches, CDEs provided diabetes educational resources, assisted in developing care plans for high-risk patients, and coordinated resources among the insurer,