

# Is the Diabetes Educator Our Next Endangered Species? Lessons From the American Bald Eagle

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Several years ago, our national bird, the American bald eagle, was in jeopardy of becoming extinct. Imagine how it would be if our national symbol could no longer be spotted in our country's skies. Fortunately, the bald eagle was protected and continues to be proudly hailed as a meaningful symbol of the United States.

As the number of people developing diabetes in the United States increases, there is a paradoxical and growing concern that diabetes educators, who can help stem this tide, will become extinct. Educators in both the American Diabetes Association (ADA) and the American Association of Diabetes Educators (AADE) report program closings and express frustration with the implementation of Medicare benefits and the difficulties involved in obtaining appropriate reimbursement.

The ADA and AADE collaborated to conduct a survey of diabetes self-management education (DSME) programs.<sup>1</sup> Their findings in 122 sites confirmed other studies indicating that diabetes education is an underutilized service.<sup>1-4</sup> Nearly half of the sites reported an average visit volume of < 50 visits per month, and 19% reported only 51-100 visits per month.<sup>1</sup> This means that relatively few diabetes patients have continuing contact with educators. With the number of education program closings and the dismal numbers of people reported to have received DSME, one cannot help but wonder if there will continue to be employment opportunities for the nurses, dietitians, and pharmacists who deliver these services.<sup>5</sup>

It is widely accepted that diabetes education is an important component of care.<sup>6</sup> Diabetes is a lifestyle disease that requires people living with it to make numerous daily decisions regarding food, activity, and medications. It also necessitates that these individuals be proficient in a number of self-care skills, such as monitoring blood glucose, examining their feet, and taking medications.<sup>7</sup> DSME is a crucial foundation for people to learn the skills to be effective diabetes self-managers.

The good news is that it has been demonstrated that diabetes education can affect clinical outcomes. DSME has been shown to improve the gold standard of diabetes clinical outcomes: hemoglobin A<sub>1c</sub> (A1C) levels. Studies have shown as much as a 0.76% reduction in A1C level in the time period immediately after DSME is delivered. Because a 1% decrease in A1C is associated with a dramatic reduction in myocardial infarctions, microvascular disease, and death, a 0.76% reduction can be considered an enormous benefit. In addition, the effectiveness of DSME on A1C levels has been directly correlated to the amount of contact time spent between the educator and the patient. Contact time with an educator was the only significant predictor of reduction in A1C; 23.6 hours of educator contact was needed for every 1% absolute decrease in A1C. The take-home message is clear: the more time a patient has with an educator, the better.<sup>8</sup>

The bad news is that the benefits of education interventions on clinical outcomes such as A1C decrease 1-3 months after the interventions are

delivered.<sup>8</sup> This most likely results from the fact that follow-up is crucial for DSME to be effective in improving long-term benefits. Lack of follow-up could be explained, in part, by the current poor reimbursement practices for DSME services, and especially for follow-up visits. Medicare will pay for only two DSME follow-up visits per patient annually.<sup>9</sup> Limited payment for visits translates into limited revenue, which ultimately results in a financial risk in supporting an educator's salary. The end result is the increase we have seen in the number of closures of diabetes education centers.

DSME has been shown to improve knowledge.<sup>10</sup> This, too, is good news, in that improved knowledge lays the foundation for behavior change. Who is better suited than educators to provide the support and behavior-change strategies patients need for successful self-management? Educators, who are most often nurses, dietitians, and pharmacists, are trained in the skills necessary to provide appropriate information in support of behavior change.

The importance of the unique skill sets of the various disciplines included in the diabetes care team has also been supported in the literature.<sup>11</sup> In the Diabetes Attitudes, Wishes, and Needs (DAWN) study, perceptions of involvement in diabetes care were examined through a survey of physicians and nurses. (The survey only included physicians and nurses, but the findings can be applied to other disciplines, including dietitians and pharmacists.) Nurses reported that they generally provide better education, spend more time with patients, are better

listeners, and get to know patients better than do physicians. Nurses agreed that a major role for nurses was to provide patients with security and hope and that they were better able than physicians to provide education. Overall, nurses and physicians who participated in the study agreed that nurses should take on a larger role in diabetes management, and most of the nurses surveyed were willing to embrace more responsibility.<sup>12</sup> Sadly, the patient survey component of the DAWN study showed that patients had better outcomes when they had access to a nurse, but that < 50% had access to nurses' services.<sup>11</sup>

To summarize, the good news is that we know that:

- Diabetes education is important.
- Diabetes education improves clinical outcomes but requires follow-up.
- Time spent with an educator is the best predictor for improvement in diabetes outcomes as it relates to diabetes education interventions.
- Nurses (and others) are willing to provide the education and assume more responsibility.
- Patients and physicians agree that diabetes education is necessary.

The bad news is that:

- Reimbursement for follow-up is limited.
- Programs cannot be sustained without proper reimbursement.
- The diabetes epidemic continues to escalate.
- The growing number of people with diabetes will demand more health care services with associated costs.

There is a crucial need to find new, effective ways to provide the

necessary services to support diabetes self-management. It is time to act. We can look to lessons learned from our county's other species. When there was a threat to the bald eagle and other animals, such as the grizzly bear, the manatee, the condor, and the Florida panther, widespread advocacy efforts were initiated to save them. Attention to the problem was brought to the highest levels of our government and society. The federal Endangered Species Act was instituted, and today some 1,400 species are protected under its provisions.

Advocacy for diabetes educators requires a **BOLD** approach. As a united force, educators, physicians, and people affected by diabetes need to:

- Bicker and bargain with insurers and government for payment;
- Organize care and efforts, document, measure, and report outcomes;
- Lobby for incentives and education as a standard for quality; and
- Demand support for patient-centered team care and continued follow-up.

### Acknowledgments

This article was partially sponsored by funding from the U.S. Air Force administered by the U.S. Army Medical Research Acquisition Activity, Fort Detrick, Md., Award Number W81XWH-04-2-0030.

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