

Many Ignore Diabetes Lifestyle Recommendations

BY PATRICE WENDLING

Chicago Bureau

CHICAGO — Few adults with diabetes and prediabetes are adhering to American Diabetes Association nutrition and activity recommendations, and even fewer with undiagnosed diabetes are doing so.

After adjustment for age, gender, and race, a logistic regression analysis of 6,446 U.S. adults revealed that only a small proportion of those with diabetes (40.2%), undiagnosed diabetes (31.5%), prediabetes (40.7%), and normal glucose (41.4%) were meeting at least three out of five American Diabetes Association (ADA) dietary recommendations.

Similarly, the proportion of adults reporting physical activity of 150 minutes or more per week was low at 19.6%, 24.6%, 21.4%, and 26.3%, respectively, Dr. Yiling J. Cheng of the division of diabetes translation at the Centers for Disease Control and Prevention, and colleagues reported in a poster at the annual scientific sessions of the ADA.

The investigators analyzed self-reported dietary and physical activity information from adults aged 20-79 years in the National Health and Nutrition Examination

Survey (NHANES) 1999-2004 database. The cohort included 1,333 adults with self-reported diagnosed diabetes, 180 with undiagnosed diabetes defined by a fasting glucose of 126 mg/dL or more, 1,459 adults with prediabetes defined by a fasting glucose between 110 and 125 mg/dL, and 3,474 adults with a normal fasting glucose of less than 100 mg/dL.

The median age was 43 years; 62% were women, 72% were non-Hispanic white, 11% black, and 13% Hispanic.

The 2002 ADA guidelines used in the study recommend the following:

- ▶ Carbohydrate and monosaturated fat together provide 60%-70% of total energy intake.
- ▶ Saturated fats contribute less than 10% of energy intake.
- ▶ Dietary cholesterol is less than 300 mg/day.
- ▶ Total fat intake is less than 30% of daily energy.
- ▶ Daily sodium intake is no more than 2,400 mg.
- ▶ Thirty minutes or more of physical activity 5 or more days per week.

The best adherence was observed for cholesterol, with 64.4% of those with diabetes, 53.4% with undiagnosed diabetes, 61.9% with prediabetes, and 65.2% with normal glucose levels meeting the daily target. Conversely, ad-

herence to the total daily fat intake was poor at 31%, 24.5%, 30%, and 33.2%, respectively.

The study did not evaluate obstacles to adherence, but lack of knowledge, reluctance to change, and socioeconomic status are known barriers. How the guidelines are translated to the general public also may play a role, Dr. Cheng said. For example, it's hard for patients to know what 2,000 mg of sodium looks like without further knowledge.

"These recommendations seem to be quantified, but hard to be practiced or followed by the general population," Dr. Cheng said in an interview. "A layman's recommendation may be helpful."

Improvements in early detection of diabetes, guideline dissemination, and education should also be considered, the authors noted.

The ADA has released several versions of dietary and physical activity guidelines, with the latest guidelines published last year (*Diabetes Care* 2006;29:2140-57).

Compared with the 2002 guidelines, the new guidelines for persons with diabetes call for more sodium restriction (less than 2,000 mg/day), lower dietary cholesterol (less than 200 mg/day), and less saturated fats (less than 7% of energy intake), Dr. Cheng noted. ■

Patient Motivation as Crucial as Education in Managing Diabetes

BY MIRIAM E. TUCKER

Senior Writer

ST. LOUIS — Teaching type 2 diabetes patients about how to take care of themselves isn't enough; they need to be motivated to follow through, according to results of a survey of 3,867 patients.

Yet discussions with patients remain primarily educational rather than motivational. "There is a huge gap between knowledge and behavior. We, as educators, have to get away from simple knowledge, or we have to target our audiences better," Debbra D. Bazata, R.D., a certified diabetes educator at St. Luke's South Primary Care, Overland Park, Kan., said in an interview held at the annual meeting of the American Association of Diabetes Educators.

In a poster that was coauthored by Dr. Andrew J Green, who is with an endocrinology practice in Overland Park, the two also advised that "physicians and other health care professionals should negotiate with their patients in setting weight, exercise, and medication goals with specified timelines."

The survey asked a series of questions related to knowledge, attitudes, and behaviors pertaining to diabetes, exercise, and eating. Respondents had a mean age of 60.2 years; 58% were women, 85% were white, and 64% had at least some college education. Nearly two-thirds (62%) were obese, with a mean body mass index (kg/m²) of 30 or higher.

A majority had been advised to change their lifestyle habits, with 56% receiving recommendations to change their diet and 63% being urged to exercise more. And they displayed healthy attitudes, with 87% agreeing that "obesity can aggravate or contribute to the onset of other chronic diseases," whereas 78%

said that they tried to make healthy food choices. Only 17% agreed with the statement "I prefer taking medications for my health problems rather than changing my lifestyle."

Most respondents were knowledgeable about diabetes, with only 22% agreeing that "type 2 diabetes is not as serious as type 1 diabetes." They were a high-utilizing group, making an average of 11 total health care visits in the past year. Of those, a mean of 3.8 visits per year were to endocrinologists, and 4.0 were to a nutritionist/dietician/health educator.

They also reported a mean of 17.1 visits per year for rehabilitation/physical therapy, and 8.2 visits for psychiatric care, along with 4.9 visits per year for primary care/general practice, Ms. Bazata and Dr. Green reported.

Yet despite all that knowledge and access to care, only 26% said they exercised regularly and only 21% had performed vigorous activity in the past 7 days. Only 33% followed a prescribed eating plan. And although 70% tried to lose weight, only 34% actually maintained a desired weight.

During the interview, Ms. Bazata acknowledged that these findings can't necessarily be extrapolated to groups other than the predominantly older, white, female population that responded to the survey.

However, "we learned a little about this target audience. They know what to do, they know they should [do it], and they even want to.... But they aren't."

The questionnaire was part of the 5-year longitudinal Study to Help Improve Early Evaluation and Management of Risk Factors Leading to Diabetes (SHIELD), sponsored by AstraZeneca Pharmaceuticals L.P. ■

Activity, Fitness Levels Are Low in Newly Diagnosed Adult Diabetics

BY SHARON WORCESTER

Southeast Bureau

NEW ORLEANS — Physical activity and fitness levels are low in individuals with newly diagnosed type 2 diabetes, compared with reference populations, Kate. J. Fitzsimons reported in a poster presentation at the annual meeting of the American College of Sports Medicine.

Baseline data from 155 men and 110 women enrolled in the Early Activity in Diabetes (Early ACTID) study—a randomized controlled trial comparing diet plus exercise with diet alone and usual care in adults with type 2 diabetes—were used in the analysis. Participants had a mean age of 58 years (range of 31-79 years) and had been diagnosed with type 2 diabetes in the 5-8 months prior to study entry.

Habitual physical activity levels were measured using an acceleromometer, which is a device that uses motion sensors to provide an objective measurement of physical activity. The device was worn by participants during all waking hours for 7 consecutive days.

Average activity volume in the participants, calculated as acceleromometer counts per minute (cpm), was 238, and time spent in moderate to vigorous physical activity (based on an established cut point of 2,100 cpm that is equivalent to 2-5 miles per hour) averaged 21 minutes daily for both men and women, reported Ms. Fitzsimons, a doctoral student at the University of Bristol (England), and a member of the Early ACTID study team.

Activity volume in these Early ACTID participants was substantially lower than in overweight and obese nondiabetic participants in a prior University of Bristol study of daily physical activity patterns in 84 adults employed in sedentary occupations. For example, Early ACTID obese in-

dividuals (those with a body mass index of 30-39.9 kg/m²) averaged about 235 cpm, compared with nearly 260 cpm in the obese individuals in the prior study (*Eur. J. Clin. Nutr.* 2000;54:887-94).

Furthermore, cardiorespiratory fitness levels in the Early ACTID participants, which were calculated for 210 participants who were not taking β -blockers, and which were assessed using a submaximal 1-mile track walk test on an indoor, level track, were also low in a majority of participants. Mean predicted maximal oxygen uptake (VO₂ max), which was predicted based on time taken to complete the walk test, heart rate at completion, weight, age, and gender, was 30 mL/kg per min for men and 21 mL/kg per min for women. Based on normative data from healthy populations, 61% of participants had a predicted VO₂ max value considered poor or very poor, Ms. Fitzsimons noted.

When participants' physical activity levels were stratified based on body mass index, no differences were found on weekdays, but during weekends, obese individuals and morbidly obese individuals (BMI of 40 kg/m² or greater) were significantly less active and spent significantly less time in moderate and vigorous physical activity than did the nonobese participants. The differences were more pronounced in males.

Although improvements in physical activity and cardiorespiratory fitness are believed to have importance in the management of type 2 diabetes, objective data regarding the levels of these factors in those with newly diagnosed disease have been lacking, Ms. Fitzsimons said.

"The low levels of physical activity and fitness in people in the early stages of type 2 diabetes support the use of interventions aimed at increasing physical activity and improving fitness," she wrote. ■