Learn diabetes meal planning skills in a virtual world

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Abstract

An estimated 25.8 million Americans or 8.3% of the population have diabetes and the incidence of diabetes is increasing most rapidly in children and young adults. Diabetes management includes following a diabetes meal plan, being physically active and possibly taking medication. This project focused on how to help young adults (18-28 year-olds) meet their diabetes meal plan recommendations. Studies have shown than teens and young adults are food illiterate they don?t have the skills to plan and cook healthy meals. In addition, eating out with friends is an important part of their social life. To help these young adults acquire these crucial meal skills and not have to eliminate their social life, three virtual world settings kitchen, restaurant, all you can eat buffet -were designed where they could practice diabetes meal planning and recipe preparation. In the virtual kitchen they learned step by step how to read a recipe, follow the instructions and gather ingredients in baking and cooking recipes. In the virtual restaurant they learned how to select meals from one of five menus (American, Italian, Asian, Southwest and Steakhouse). In the virtual buffet they learned how to incorporate a wide variety of buffet foods into their meal plan. It was expected the skills they learned in these virtual world settings would transfer to real life so they could prepare their meals, be able to eat out in a variety of real life settings, and stay within their diabetes meal plan.

This Consensus Report is intended to provide clinical professionals with evidence-based guidance about individualizing nutrition therapy for adults with diabetes or prediabetes. Strong evidence supports the efficacy and cost-effectiveness of nutrition therapy as a component of quality diabetes care, including its integration into the medical management of diabetes; therefore, it is important that all members of the health care team know and champion the benefits of nutrition therapy and key nutrition messages. Nutrition counseling that works toward improving or maintaining glycemic targets, achieving weight management goals, and improving cardiovascular risk factors (e.g., blood pressure, lipids, etc.) within individualized treatment goals is recommended for all adults with diabetes and prediabetes.

Though it might simplify messaging, a “one-size-fits-all” eating plan is not evident for the prevention or management of diabetes, and it is an unrealistic expectation given the broad spectrum of people affected by diabetes and prediabetes, their cultural backgrounds, personal preferences, co-occurring conditions (often referred to as comorbidities), and socioeconomic settings in which they live. Research provides clarity on many food choices and eating patterns that can help people achieve health goals and quality of life. The American Diabetes Association (ADA) emphasizes that medical nutrition therapy (MNT) is fundamental in the overall diabetes management plan, and the need for MNT should be reassessed frequently by health care providers in collaboration with people with diabetes across the life span, with special attention during times of changing health status and life stages (1–3).

This Consensus Report now includes information on prediabetes, and previous ADA nutrition position statements, the last of which was published in 2014 (4), did not. Unless otherwise noted, the research reviewed was limited to those studies conducted in adults diagnosed with prediabetes, type 1 diabetes, and/or type 2 diabetes. Nutrition therapy for children with diabetes or women with gestational diabetes mellitus is not addressed in this review but is covered in other ADA publications, specifically Standards of Medical Care in Diabetes (5,6).

The authors of this report were chosen following a national call for experts to ensure diversity of the members both in professional interest and cultural background, including a person living with diabetes who served as a patient advocate. An outside market research company was used to conduct the literature search and was paid using ADA funds. The authors convened in person for one group meeting and actively participated in monthly teleconference calls between February and November 2018. Focused teleconference calls, email, and web-based collaboration were also used to reach consensus on final recommendations between November 2018 and January 2019. The 2014 position statement (4) was used as a starting point, and a search was conducted on PubMed for studies published in English between 1 January 2014 and

28 February 2018 to provide the updated evidence of nutrition therapy interventions in nonhospitalized adults with prediabetes and type 1 and type 2 diabetes. Details on the keywords and the search strategy are reported in the Supplementary Data, emphasizing randomized controlled trials (RCTs), systematic reviews, and meta-analyses of RCTs. An exception was made to the inclusion criteria for the use of meal studies for the insulin dosing section. In addition to the search results, in select cases the authors identified relevant research to include in reaching consensus. The consensus report was peer reviewed (see acknowledgments) and suggestions incorporated as deemed appropriate by the authors. Though evidence-based, the recommendations presented are the informed, expert opinions of the authors after consensus was reached through presentation and discussion of the evidence.

Biography

SeAnne Safaii completed her Ph.D. from the University of Idaho and dietetics degree at North Dakota State University. She is an Assistant Professor in the Dietetics Program at the University of Idaho. She is a co-Principal Investigator (PI) on a National Institutes of Health grant that teaches young adults with diabetes meal planning skills in a virtual world and how to apply these skills in a real world.