

Diabetes Self-Management Education and Support (Dsmes), Medical Nutrition (Mnt) Therapy: Their Importance for the Coming Years

Diaz Laura¹, Contreras Freddy² and Manuel Velasco^{3*}

¹*Professor of Diabetes Therapeutic Education, Faculty of Medicine, Universidad Central de Venezuela, Caracas, Venezuela*

²*Associate Professor, Faculty of Medicine, Central University of Venezuela, Caracas, Venezuela*

³*Professor FRCP Edin, Clinical Pharmacology Unit, Vargas Medical School, Central University of Venezuela, Caracas, Venezuela*

***Corresponding Author:** Manuel Velasco, Professor FRCP Edin, Clinical Pharmacology Unit, Vargas Medical School, Central University of Venezuela, Caracas, Venezuela.

Received: December 6, 2019; **Published:** December 31, 2019

Diabetes mellitus is a worldwide health problem that has increased dramatically during the last decades. It is associated to chronic complications that yield to lifelong incapacity and carry expensive costs for the health care systems.

The number of affected people with diabetes has quadrupled since 1980 and it is estimated there will be 366 million people with diabetes in 2030. The prevalence (age-standardized) is growing in all regions, most rapidly in low- and middle-income countries [1,2].

Diabetes self-management education and support (DSMES) and medical nutrition (MNT) are essential aspects in diabetes management. Studies have found that diabetes self-management education is associated with improved diabetes knowledge and self-care behaviors, lower A1C, lower self-reported weight, improved quality of life, reduced all-cause mortality risk, and reduced health care costs. DSMES must be individualized and it is important to consider the concerns, needs, and preferences of the patients. Literacy, cultural beliefs, and living in underserved areas can make challenging diabetes education and are commonly seen in low income populations [3,4].

Evidence has found that physicians refer their patients to diabetes education with high variation rates, even with de robust evidence of benefits of DSMES it is underutilized. The analysis of data shows that quality of education may improve, and costs be reduced, by increasing referral rates to diabetes education among low-referring physicians, mainly among men and people in disadvantaged areas [4,5].

Technology is becoming an interesting and accessible way to deliver DSMES and the studies have shown positive outcomes. Recent evidence has shown how internet-based DSMES may improve diabetes prevention and the management of type 2 diabetes. One study showed that technology-enabled diabetes self-management solutions lower A1C most effectively when there is two-way communication between the patient and the health care team, individualized feedback, use of patient-generated health data, and education. Another studies have demonstrated that nutrition therapy and a multimedia diabetes education program have a positive impact on achieving metabolic control goals in type 2 diabetes [6,7].

The evidence shows that diabetes nutrition therapy is effective for improving glycemic control, lipid profiles, weight loss, decreased blood pressure, and decreased need for medication, and decreased risk of onset and progression to diabetes-related comorbidities [8]. The American diabetes Association recommends that people with diabetes receive individualized medical nutrition therapy as needed to achieve treatment goals, preferably by a registered dietitian/nutritionist familiar with the components of medical nutrition therapy in diabetes. Diabetes nutrition education can also be provided as part of a comprehensive diabetes self-management and support program.

About a half of people with diabetes receive diabetes education and even fewer see a registered dietitian/nutritionist according to the US national data [9,10]. One study of people with diabetes (over 18.000 patients) revealed that only 9.1% had at least one nutrition visit within a 9-year period of time [11].

The robust evidence of the efficacy of diabetes self-management education and support (DSMES) and medical nutrition (MNT) for improving diabetes outcomes has not been enough to expand upon and benefit more people. Today is important to make progress in these two areas making them widely available, this way we can contribute to control the global impact that diabetes is going to have in our lives the coming years.

Bibliography

1. "WHO Global report on diabetes". World Health Organization (2016).
2. Sarah W., *et al.* "Global Prevalence of Diabetes". *Diabetes Care* 27.10 (2004): 1047-1053.
3. American Diabetes Association. "Lifestyle management: Standards of Medical Care in Diabetes 2019". *Diabetes Care* 2.1 (2019): S46-S60.
4. Beck J., *et al.* "National Standards for Diabetes Self-Management Education and Support". *Diabetes Care* (2017).
5. Duncan I., *et al.* "Assessing the Value of Diabetes Education". *The Diabetes Educator* 35.5 (2009): 752-760.
6. Greenwood DA., *et al.* "A systematic review of reviews evaluating technology-enabled diabetes self-management education and support". *Journal of Diabetes Science and Technology* 11 (2017): 1015-1027.
7. Velázquez-López L., *et al.* "Multimedia education program and nutrition therapy improves HbA1c, weight, and lipid profile of patients with type 2 diabetes: a randomized clinical trial". *Endocrine* 58.2 (2017): 236-245.
8. Pastors JG and Franz MJ. "Effectiveness of medical nutrition therapy in diabetes". In: Franz, MJ, Evert AB, editors. American Diabetes Association Guide to Nutrition Therapy for Diabetes. Alexandria, VA, USA: American Diabetes Association (2012).
9. Evert AB., *et al.* "Nutrition therapy recommendations for the management of adults with diabetes". *Diabetes Care* 36.11 (2013): 3821-3842.
10. Ali MK., *et al.* "Achievement of goals in US diabetes care. 1999-2010". *New England Journal of Medicine* 368.3 (2013): 1613-1624.
11. Robbins JM., *et al.* "Nutritionist visits, diabetes classes, and hospitalization rates and charges: the Urban Diabetes Study". *Diabetes Care* 31 (2008): 655-660.

Volume 15 Issue 1 January 2020

©All rights reserved by Manuel Velasco., et al.