Commentary

TRANSCULTURAL DIABETES CARE:
A CALL FOR ADDRESSING THE PATIENT AS A WHOLE

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We are currently enjoying the benefits of great scientific advances in diabetes care. Never have we had such a deep understanding of the pathophysiology of type 1 and type 2 diabetes and their potential complications, nor had access to as many new technologies and effective therapeutic options for our patients with these conditions as we do today. In addition, effective lifestyle modification and patient education strategies have been identified and validated for the prevention and adequate management of the disease. Precision medicine is guiding us to an era when the implementation of therapy using patient-level genetic and biomarker data may become a routine strategy in clinical practice. We are truly at an unprecedented stage when research has led us to envision the availability of functional beta cells, which would constitute an unparalleled breakthrough in the battle against diabetes.

Nevertheless, despite these impressive scientific gains in the fight against the disease in the last few decades, we are still falling short of the most fundamental goals in diabetes care. Most patients with diabetes around the world have not achieved recommended treatment targets (1,2). In consequence, many of them still develop chronic diabetes-related complications that can be devastating for them and their families. Many individuals with the disease remain undiagnosed (1,3). Some who are aware of having diabetes have minimal to no access to health care, whereas some of those who do have access to the health care system are not receiving the highest quality of care possible (1,3). From a health care cost perspective, diabetes remains one of the most expensive diseases to treat. The direct medical cost of diabetes in the United States increased from $176 billion in 2012 to $237 billion in 2017 (4). Approximately 15% of the Medicare population with diabetes accounts for 70% of diabetes-related costs in the Medicare system (5). Most of these patients are those with complications of the disease. We are simply acting too late in the disease process, and not everyone is getting full benefit of the many scientific advances we've accomplished.

The burden of diabetes represents an even greater challenge among racial/ethnic minorities in the U.S., which are predicted to comprise half of the total population in the country by the year 2050 (6). The age-standardized prevalence of total diabetes (using glycated hemoglobin A1c, fasting plasma glucose, or 2-hour plasma glucose criteria) has been reported as high as 21.8% among non-Hispanic blacks, 20.6% among non-Hispanic Asians, and 22.6% among Hispanics, in contrast to 11.3% in non-Hispanic whites (7). In the same National Health and Nutrition Examination Survey (NHANES), the age-standardized percentage of participants with previously undiagnosed diabetes was higher among racial/ethnic minorities. The rates were 51% for non-Hispanic Asians, 49% for Hispanics, 37% for non-Hispanic blacks, and 32% for the non-Hispanic white population (7). We should also add to these figures the increasing number of people with impaired fasting glucose and/or impaired glucose tolerance to fully understand the magnitude of glucose abnormalities among them (3). Other groups not included in the NHANES, such as Native Americans, are also disproportionately affected by diabetes and its complications (3). Several immigrant communities, including those from the Middle East, South

East Asia, and Africa, are frequently affected by the disease as well (8).

These vulnerable populations are also more likely to develop diabetes-related complications, often have higher mortality rates, and receive lower quality of health care when compared to mainstream groups. The Institute of Medicine reported the existence of clear health care disparities between racial/ethnic minorities and whites after controlling for important factors such as health care access, age, socio-economic status, stage of presentation, and existing comorbidities (9).

This is a sensitive but important issue in our health care agenda. We as health care professionals strive to help everyone, but there are multiple factors that decrease our ability to do so. The health care system is often not conducive to implementing effective prevention and comprehensive programs that address social and cultural factors. Most health care models focus primarily on the management of traditional biomedical issues. Hospitals, clinics, and community centers are often saturated with many patients, and realistically, there is often limited time for health care providers to interact with patients. Very few culturally oriented diabetes prevention and treatment programs have been developed. Community-based activities that can effectively help vulnerable groups are limited and usually underfunded. In addition, many patients in high-risk populations have true difficulty adhering to prevention and treatment recommendations for multiple reasons. Finally, health care providers may not be fully aware of race/ethnic-specific factors that ought to be taken into consideration in clinical practice.

I have long been interested in understanding key biological, psychological, emotional, social, and cultural factors that influence the development and course of diabetes in racial/ethnic minorities, particularly the Latino/Hispanic population. This group, as all others, has unique features that must be taken into consideration. High rates of insulin resistance, early beta-cell failure and abdominal obesity, unique genetic factors linked to these abnormalities, and early development of metabolic and vascular problems accompanied by a complex myriad of multiple culturally driven health beliefs and behaviors represent a common picture we may encounter in clinical practice when providing care to them (10,11).

Welcoming the opportunity to learn more about our patients is crucial in health care. Cultural humility is a lifelong process that ensures that we all learn about other cultures and are sensitive and respectful of cultural differences. It is much more than speaking another language; it is about having a genuine interest in understanding and appreciating everyone we interact with. The better we understand our patients' characteristics, the closer we will get to gaining their trust and inspiring them to engage in their diabetes care. A special word of caution is to avoid creating stereotypes about racial/ethnic minorities. Each member of any community is ultimately a unique entity with his or her own characteristics.

I recently suggested an "A to Z" list for the management of type 2 diabetes in culturally diverse populations (12). I've considered biological, emotional, psychological, social, and/or cultural factors that are often overlooked in our interactions with patients but that have been demonstrated to influence the development and course of the disease. Unique biological factors related to the development of diabetes and/or its complications may exist in some populations. Psychological factors such as depression, emotional distress, and sense of isolation are frequently present in some of these groups. Social and cultural factors such as acculturation level, educational attainment, health literacy, language, perception of body image, religion and faith, socio-economic status, and quality of life may have a crucial role in patients' ability to engage in their diabetes self-care behaviors. Ultimately, key patient diabetes self-care behaviors are frequently influenced by multiple patient, health care provider, and health care system factors (Fig. 1).
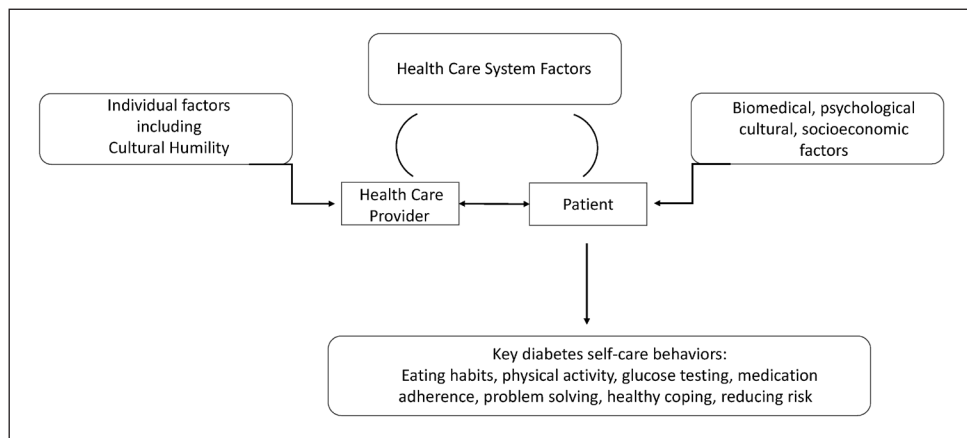

Fig. 1. Multiple health care provider and patient factors influence their interaction within a given health care system. Cultural humility is an important factor to be strengthened among clinicians. All of these factors influence patients' ability to engage in key diabetes self-care behaviors.

Several organizations in the U.S. have emphasized the importance of working with culturally diverse populations and have developed very well-structured programs to guide efforts in improving diabetes care to racial/ethnic minorities and other underserved communities (13-15). Health care providers must become familiar with the available local, regional, and national programs.

The latest addition to the important work of improving the lives of people in vulnerable populations comes from the Transcultural Diabetes Care in the United States position statement by the American Association of Clinical Endocrinologists (16). This document emphasizes the importance of cultural adaptation of current evidence-based recommendations and provides practical suggestions to adequately address biological, social, and cultural aspects in the most common racial/ethnic minorities in the U.S., like Hispanics/Latinos, African Americans, Asian Americans, and Native Americans.

A particular asset to clinicians in this position statement is the "Transcultural Diabetes Nutrition Algorithm," a validated methodology where recommendations from a source culture can be adapted and implemented using a toolkit in a different culture. We have long struggled with providing culturally oriented lifestyle recommendations to many patients. This algorithm may prove to be helpful to many health care providers and their patients in routine clinical practice.

As stated at the beginning, we have made important strides in the fight against diabetes. We have witnessed the introduction of fascinating tools and treatment strategies for our patients. However, much work remains to be done. The effective management of chronic diseases like diabetes requires a proactive care model that adequately addresses not only biomedical factors but also social, cultural, psychological, and contextual determinants of health in all individuals. The wide implementation of such an approach has been taxing due to multiple health care system, patient, and health care provider factors.

The huge challenges in improving the lives of underserved communities have also brought great opportunities to better understand what must be done. We have unequivocally learned that addressing cultural and social determinants of health is of paramount importance to our collective task of defeating diabetes. In fact, this concept fully applies to our goal of helping all of our patients, regardless of race and ethnicity. Every one of our patients is unique, and I trust we can better help them by acknowledging and understanding their biological, psychological, social, and cultural elements. We are more likely to guide them in improving their self-care behaviors if we fully understand and address the complexity of factors that are present in each of them. We should continue to be inspired by Sir William Osler, who once said: "The good physician treats the disease; the great physician treats the patient that has the disease."

DISCLOSURE

The author has no multiplicity of interest to disclose.

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