Health and Heritage - Diabetes and Diet

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Executive Summary

Diabetes mellitus is a costly chronic disease with growing prevalence and serious complications. The disease disproportionately impacts racial and ethnic minority groups, in part due to failure to consider cultural preferences and practices. Diet is an important modifiable risk factor for diabetes management, and diet is also heavily interconnected with culture, identity, and community. Mainstream dietary recommendations, such as the Mediterranean Diet are derived from Eurocentric perspectives which may not reflect the food traditions of many communities. This lack of cultural relevance can generate barriers to adherence, especially when individuals are encouraged to abandon familiar foods rather than modifying them in healthier ways. The lack of cultural representation in the nutrition field further exacerbates this issue, limiting the progress towards inclusive dietary practices and guidelines.

Improving representation within the nutrition field and exercising cultural humility in nutrition care can lead to more achievable and sustainable dietary changes. By integrating traditional food practices and reframing the concept of "healthy" to include a wider range of cultural diets, health interventions can become more respectful, effective, and empowering. Cultural humility is best taught through practical experience and should be exercised throughout a career. The current structure for dietetics training includes a Supervised Practice Program component. This is a promising opportunity for integrating cultural humility training with practical experience, encouraging current dietitians to dedicate focus to underrepresented communities, and facilitating lifetime learning in this area. By prioritizing culturally relevant nutrition care, we can empower individuals to make healthy changes and reduce racial and ethnic disparities in diabetes outcomes.

Public Health Significance: Racial Disparities and Diabetes Care

Diabetes mellitus (diabetes) is a group of diseases characterized by high blood sugar, where insulin is not produced appropriately or cannot be used effectively. Diabetes is a leading cause of death globally, is one of the fastest growing diseases, and is incredibly expensive in terms of medical costs, loss of productivity, and reduced quality of life. Currently in the United

States, 13% of adults have diabetes. However, the burden of the disease is not shared equally across racial and ethnic groups. Minority populations experience disproportionately high rates of diabetes; the disease is found in only 7.5% of the non-Hispanic White population, compared to 14.7% among American Indians, 12.5% among Hispanics, and 11.7% among non-Hispanic Blacks (Sonya Haw et al. 2021). Furthermore, minority populations also experience greater burden of related complications, are less likely to receive preventative care, are less likely to control for risk factors, and are more likely to have undiagnosed diabetes. Unmanaged diabetes can result in serious complications, including cardiovascular disease, kidney disease, eye damage, and nerve damage. While there are several forms of diabetes, Type II Diabetes is particularly of interest because there are modifiable risk factors contributing to disease development and altering these can reestablish suitable blood sugar regulation (Sami et al. 2017).

The association between dietary habits and diabetes risk has been well established, and diet is a key aspect of diabetes care. Healthcare providers will often recommend that individuals with diabetes or prediabetes work with a dietitian to develop a diabetes healthy eating plan. A diabetes diet focuses on controlling blood sugar, managing weight, and mitigating heart disease risk factors. A healthy eating plan involves determining food choices and portion sizes, but also regular times for eating meals (Mayo Clinic Staff 2024). Furthermore, education around food choices is an important tool for sustainable changes in eating habits. Knowledge around recommended food options and dietary guidelines inform food choices and long-term patterns. However, while there may be support for diabetes management available, not all people with diabetes have the same access to these resources.

Some barriers to accessing support resources for diabetes management and implementing healthy eating patterns may include, language or literacy barriers, rural areas or areas with less healthcare support or limited internet access, attitudes about weight and body image, and many more factors (Shapiro 2024). Diet is also a personal experience and is often associated with cultural elements that are integral to personal identity and community. Culture influences the values, beliefs, and traditions that shape foods preferences and social interactions and economic conditions influence food choices. While education can be provided to better inform food choices, it is a far more significant ask for an individual to change food preferences strongly linked to identity. Inequities in access to resources for healthy eating results in health disparities, with currently underrepresented communities facing greater barriers. Emphasizing the need for

cultural representation, cultural competency, and cultural humility within the nutrition field has promising potential for improving access to resources for healthy eating.

Current Perspectives: Lack of Cultural Inclusivity

The Mediterranean diet (MedDiet) has become well known in the field of nutrition, focusing on plant-based foods and healthier fats. Adherence to the well-defined MedDiet has been associated with lower risk of many chronic diseases, including Type II Diabetes. Research has yielded incredibly promising outcomes, which have resulted in strong promotion of the MedDiet. The MedDiet dominates the field of nutrition and is often labeled as the "healthiest diet." However, there are some criticisms of the exclusive promotion of this diet. The dominance of this dietary recommendation reflects systemic racism, is a result of historically biased research, and maintains white culture as normative (Burt 2021). The MedDiet is designed to be a healthier adaptation of a "white" diet, and is meant to be palatable and familiar to individuals of white cultures. Reliance strictly on the MedDiet as the recommended eating pattern presents barriers to other cultures attempting to improve dietary choices. It is challenging to change eating patterns, and it is even more difficult when the recommendation encourages abandoning historical and cultural relationships with food. Individuals and households not raised with white culture may not know how to cook the MedDiet foods; for example, olive oil is a key ingredient in MedDiet recipes, but is not commonly used in many places around the world. Alternately, the dishes simply may not be palatable. These challenges present barriers for long-term adherence and benefits of diet improvements. Furthermore, universal recommendation of the MedDiet as the "healthiest" diet implies that other cultures diets are less healthy. This is not scientifically proven, as research on other diets is significantly lacking. Interestingly, a 2019 PubMed search for "Mediterranean Diet" yielded 6,426 results, while "Traditional Chinese Diet," "Traditional African Diet," and "Traditional Mexican Diet" combined yielded 2,355 results (Burt 2021). There is a significant disparity in studies conducted, with research heavily skewed towards the MedDiet. This bias is a result of historical Eurocentric perspectives and systemic racism. This disparity of research and the lack of cultural inclusivity is further disempowering already underrepresented cultures by posing barriers to health.

Furthermore, there is also a severe lack of cultural representation in the nutrition field, contributing to the lack of resources for other cultures. Data suggests that 80% of registered

dietitians in the United States identify as white (Berg 2023). Many dietitians have acknowledged the limitations of their training, as much of their education reflected Eurocentric bias. Registered Dietitian Tamara Melton grew up eating lots of Trinidadian food and reported that, “we R.D.s were not being trained to use diverse examples of healthy eating when we counseled patients or wrote educational materials. We were often being taught to perpetuate idea that Eurocentric eating patterns were the only paths to healthy eating, that healthy eating means one thing and one thing only.” (Melton 2018). In addition, the small minority of non-white identifying dietitians have criticized the Academy of Nutrition and Dietetics for lack of cultural inclusivity and promoting a homogenous view of health. The concern is that this makes “an increasingly diverse population feel like health is not for them.” (Chandra 2022).

Culturally inclusive nutrition education and culturally tailored interventions improve adherence to modified diets; working within culture and environment allows for manageable and sustainable diet changes (Dhar 2024). Some suggested actions include adapting an intervention to include cultural foods, maintaining the positive aspects of eating behavior, simplifying messaging around healthy food choices, and avoiding stereotyping across and within ethnic groups (Winham 2009). Though sparse, the research examining culturally tailored diabetes diets reveal promising potential. One study in the United States provided Latino patients with culturally tailored MyPlate recipes via “virtual cooking demonstrations, food distribution events, and social media.” (Cheney 2023). The researchers had a diverse group of stakeholders as part of the research design and followed up with surveys and focus groups to assess the success of the program. All participants in the program reported higher confidence in the ability to reduce added sugar, red meat, and refined wheat or white rice from their diet. The authors also noted the potential for decreased prevalence of pre-diabetes and diabetes in this population with long-term adherence (Cheney 2023). The findings demonstrate the potential for culturally tailored approaches to increase the success of diet-related health interventions.

Future Directions: Cultural Humility Training Integrated into Supervised Practice Program Requirements for Registered Dietitian Preparation

Teaching cultural humility within dietitian programs and ensuring licensed nutritionists are confident exercising cultural humility are critical for improving health equity. While culturally competent care has been emphasized, the current opportunities for training are

inconsistent, unengaging, or overlooked. Before dietitians in training are able to sit for the board exam, students must "demonstrate an understanding of cultural competence . . . [and] show cultural competence in interactions with clients, colleagues, and staff." (McCabe 2020). However, this requirement is not well defined or easily measured and lacks standardization across dietetics programs. Cultural humility as a foundational competency should be taught and evaluated effectively. Improved curriculum for training in this area must be developed with students and future clients in mind.

Current strategies for higher education interventions include interprofessional engagement, social media community forums, service learning, short-term workshops, and a semester-long course. Each of these teaching methods reported that students increased "knowledge, confidence, and skills in cultural competence or interactions." (McCabe 2020). Each of these teaching methods also bear different strengths. Interprofessional engagement and online platforms are accessible to students and professionals. Service learning allows students to exercise classroom knowledge, experience real world challenges, work with communities to navigate the environment. This method is incredibly effective when the experience is mutually beneficial to students and the communities involved.

Dietetics training currently involves a Supervised Practice Program stage. This is an internship experience where students gain hands-on experience applying their knowledge under the supervision of an experienced registered dietitian. This typically includes 1,000 hours of supervised practice to become a Registered Dietitian Nutritionist and 450 hours of supervised practice to become a Registered Nutrition and Dietetic Technician. The Supervised Practice Program stage of the training could be a promising opportunity to build confidence working with clients of different cultures. A certain percentage of these hours could be dedicated to serving underrepresented communities and the cultural humility requirement should include self-reflection assignments. This policy could emphasize the importance of cultural humility for students, provide students with practical experience, encourage the preceptor to partner with underrepresented communities, and facilitate the exercise of cultural humility throughout the career. Improving the cultural relevance of dietitian education and practice improves nutrition care and mitigates barriers to accessing nutrition resources. By prioritizing culturally relevant nutrition care, we can empower individuals to make healthy changes and reduce racial and ethnic disparities in diabetes outcomes.

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