

Assessment of Racial Disparities Related to Knowledge of Diabetes of Allied Health Profession College Students

Andrea Peller, Michelle Dix, Julie Schoonover

Michael Kirtsos, MS, RDN, CSSD, LDN¹

¹Dietetic Internship Program, University of Maryland Eastern Shore, Princess Anne, MD 21853

Introduction to the Problem

In the United States, approximately 37.3 million adults, or 11.3% of the population, have diabetes¹. The prevalence is more concerning for prediabetes, as 96 million people, or 1 in 3 adults, have prediabetes with 80% undiagnosed^{1,2}. The prevalence of diabetes is projected to increase to 60.6 million by 2060³, indicating rapid disease growth. With this expected significant increase, it is imperative that allied health professionals demonstrate sound knowledge of diabetes to provide adequate care. There is limited research regarding diabetes knowledge of healthcare professionals, a 2019 study of healthcare professionals did find that knowledge regarding managing inpatient diabetes problems as being mediocre⁴. African Americans are known to have an increased risk of developing diabetes; however, past research has shown that African Americans may have insufficient knowledge of diabetes risk factors. A 2018 study found that only 3.3% of African American respondents correctly identified diabetes risk factors⁶. There is also limited research assessing diabetes knowledge among healthcare professionals while considering racial disparities.

Purpose of Study

The aim of the study is to investigate the presence of racial disparities related to knowledge of diabetes of allied health profession college students.

Methods

The Revised Brief Diabetes Knowledge Test (DKT2), a validated and reliable tool, was distributed electronically to University of Maryland Eastern Shore and Salisbury University allied health profession students to assess diabetes knowledge⁵. The study consisted of 40 students, 6 males and 34 females from the majors of dietetics, nursing, physician assistant, pharmacy, and physical therapy. The ethnicity of the students were 64% Caucasian, 20% African American, 7% Latino, 7% Asian and 2% other. The survey consists of two parts: general diabetes knowledge and insulin use. Score categories consist of a global score out of 23, with scores of average knowledge (12 – 18) and high knowledge (19 – 23)⁶.

Statistical Analysis

The data was analyzed using descriptive statistics, Chi-Square tests and paired t-tests to assess differences in diabetes knowledge among different ethnic groups and allied health disciplines in college students.

Key Findings

A significant difference was observed between mean DKT2 scores by allied health profession compared to mean DKT2 scores for African American ($p = .013$) and Caucasian ($p = .027$) students.

Conclusion

A significant difference was observed between ethnicity and mean DKT2 scores by allied health profession compared to mean DKT2 scores for ethnicity via Chi-Square testing ($p = <.001$).

Significant differences in DKT2 scores related to diabetes knowledge of allied health professional students indicate a racial disparity between African Americans, who demonstrate average diabetes knowledge, and Caucasians, who demonstrate high diabetes knowledge. Educators should apply cultural awareness in their teaching methods in the university setting to address racial disparities when educating allied health profession students of diverse backgrounds on diabetes management to ensure competent patient care.

Limitations

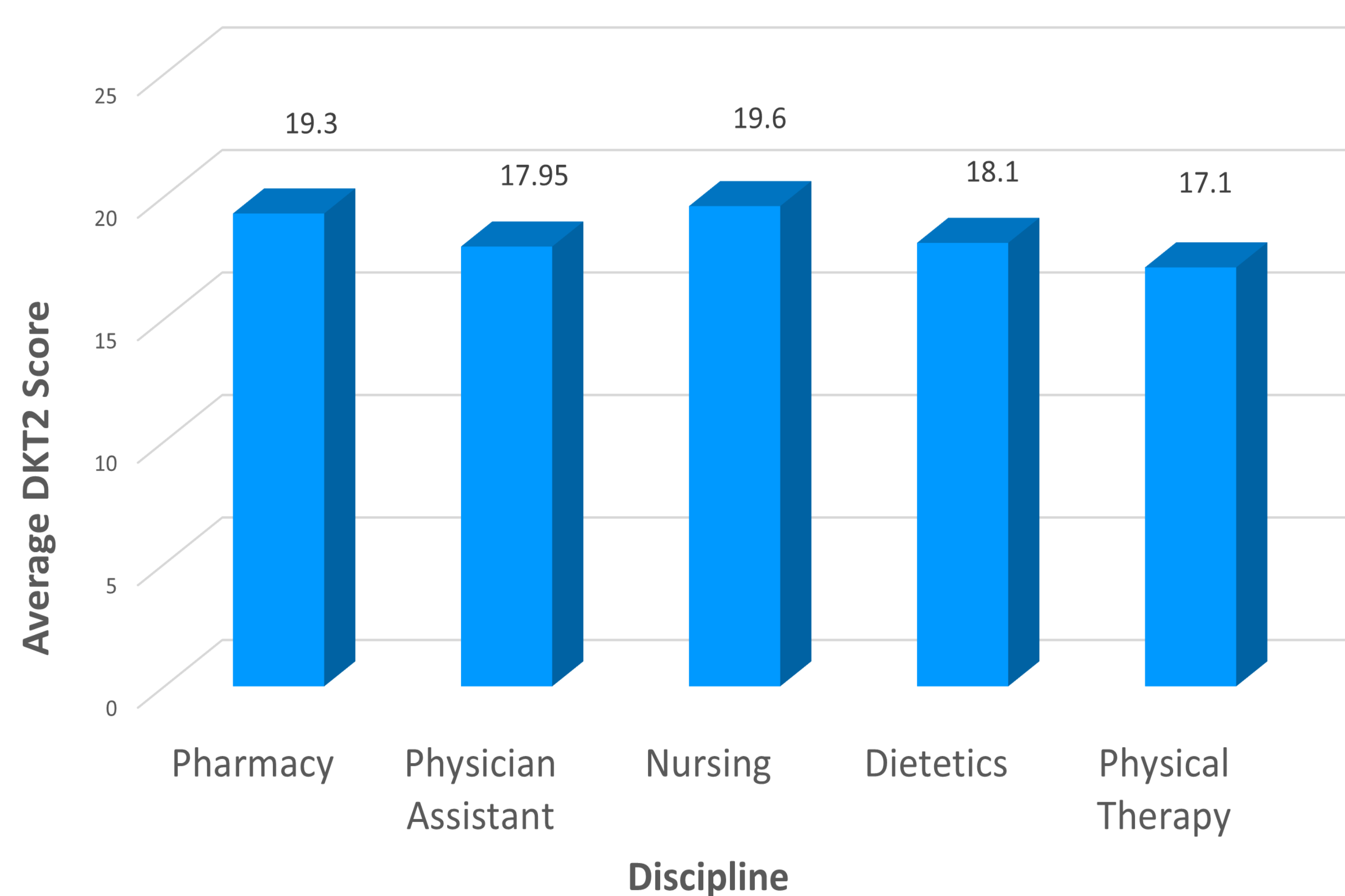
Small sample size, self-reported survey responses, and an uneven distribution of allied health disciplines and gender.

Future Work

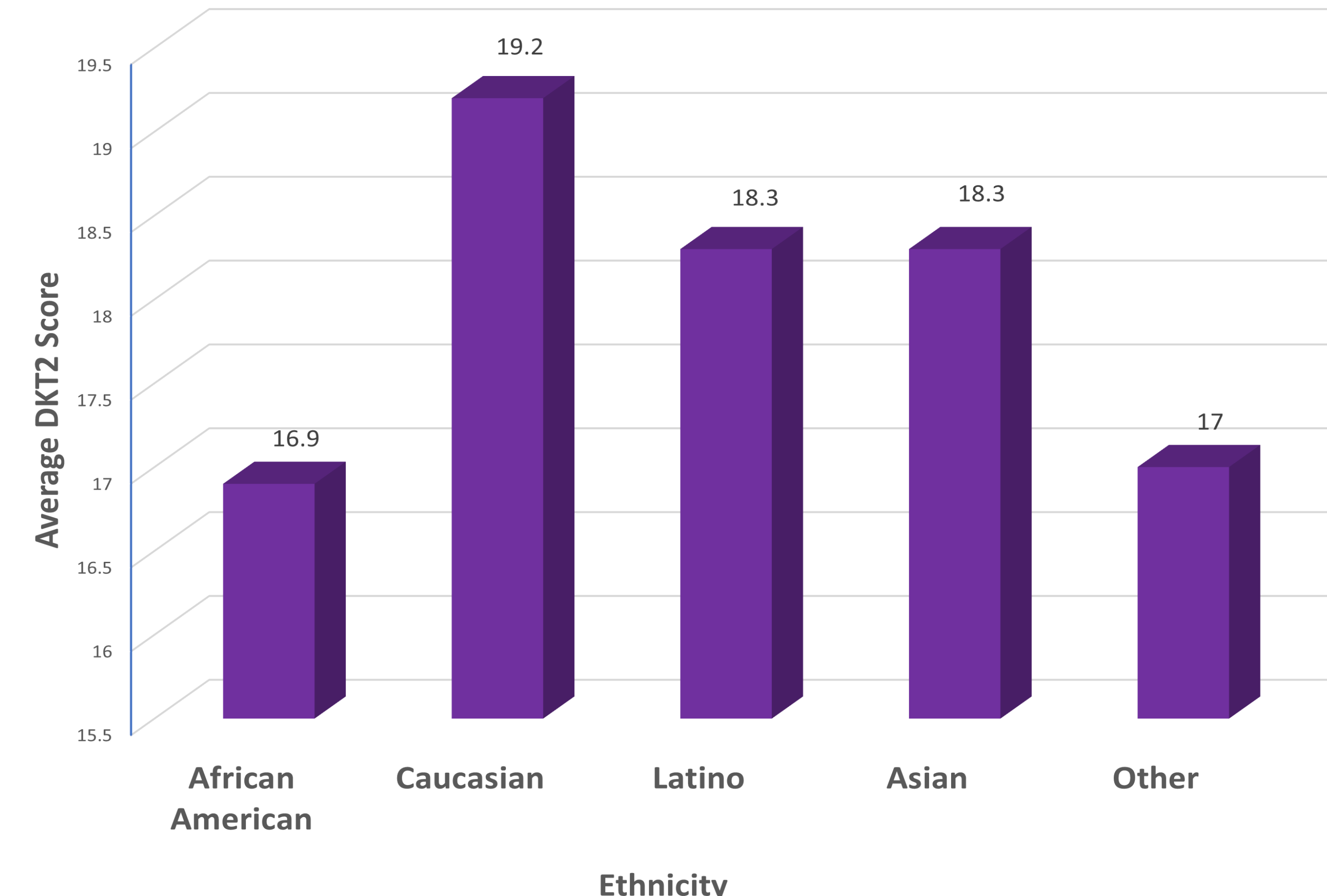
Future research is needed to determine how representative these results are and if the knowledge of diabetes between allied health professions and ethnicity contributed to an overall difference in diabetes knowledge.

Results

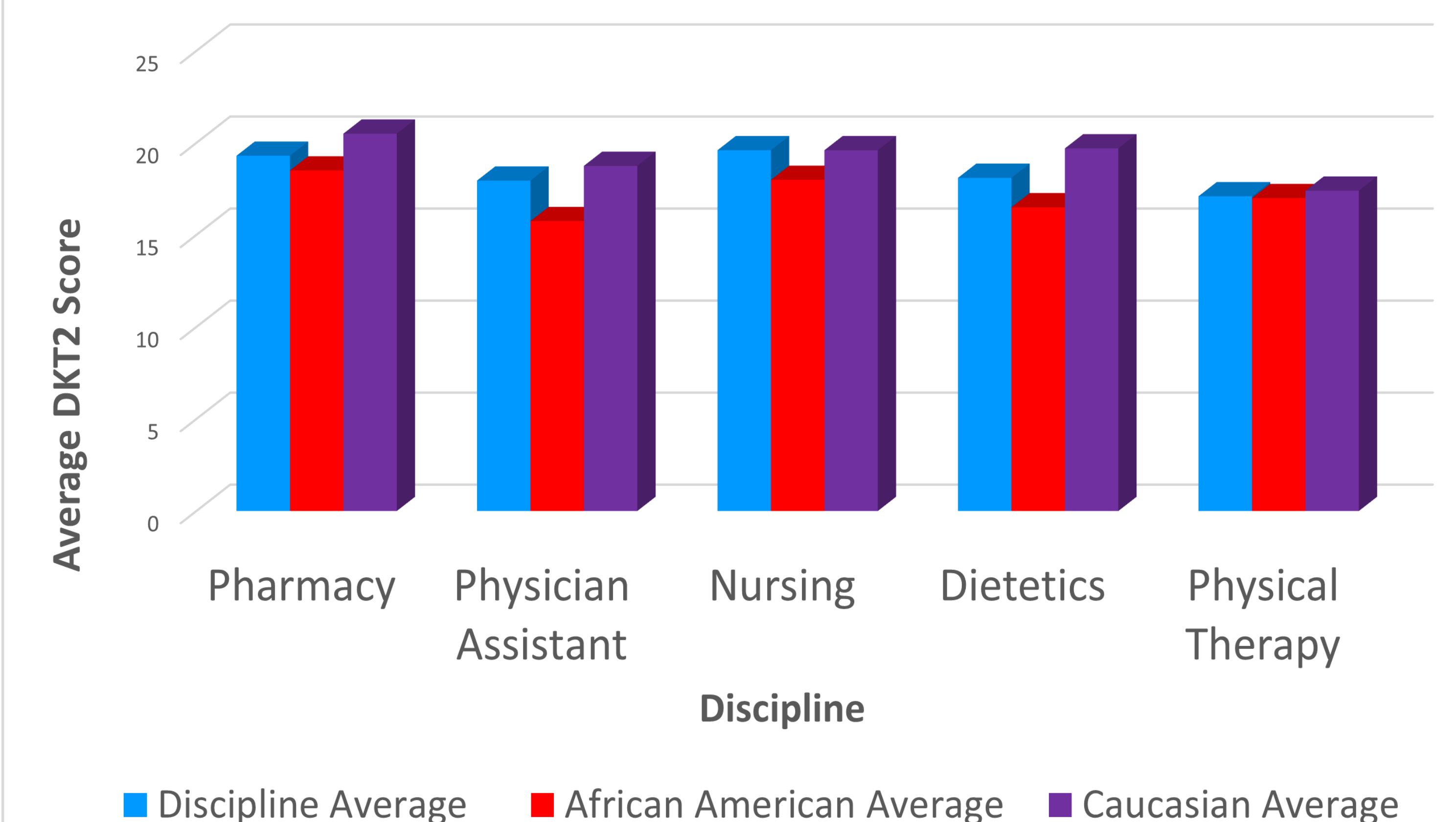
DKT2 Score by Discipline



Average DKT2 Score by Ethnicity



African American and Caucasian Average DKT2 Score by Discipline



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