



Cultural Health Capital Among Patients/Families with Type I and II Diabetes Mellitus in Port Harcourt, Rivers State, Nigeria

Anika Agrawal, BA¹, Tamunopriye Jaja, MBBS², Kariba Akhidue, MBBS², Lolita Abibo, MD, MS¹
¹Medical College of Wisconsin (MCW), ²University of Port Harcourt Teaching Hospital (UPTH)

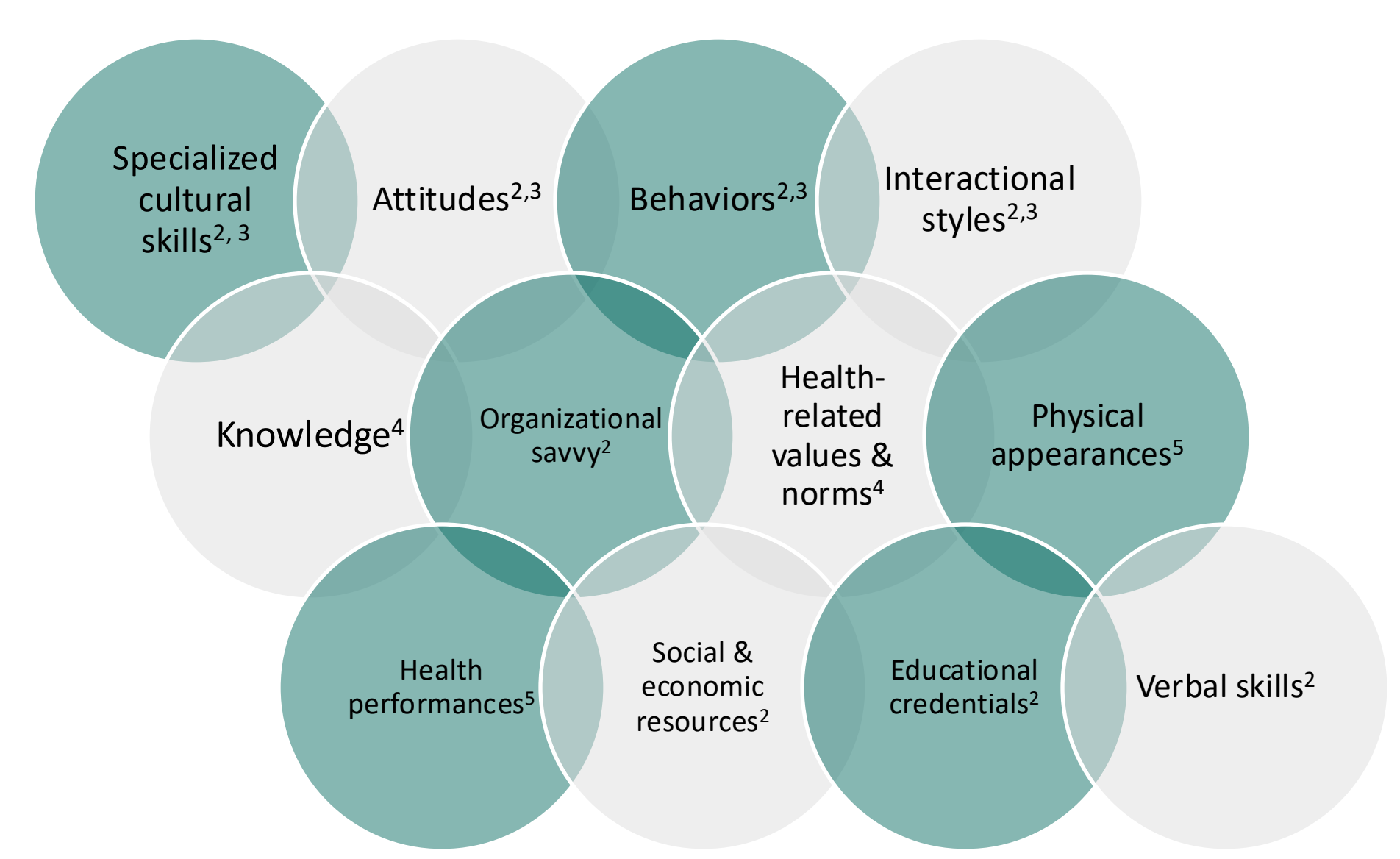


Background

What is cultural health capital (CHC)?

- The unique cultural skills, attitudes, behaviors, and interaction styles that patients and providers bring to healthcare interactions¹

12 Domains of CHC



Why assess CHC?

- Improves Health Outcomes:** Helps design interventions that resonate with local communities
- Strengthens Patient-Provider Relationships:** Values patients' lived experiences, enhancing trust and adherence to care plans
- Supports Sustainable Healthcare Systems:** Promotes equity, sustainability, and community engagement

Methods

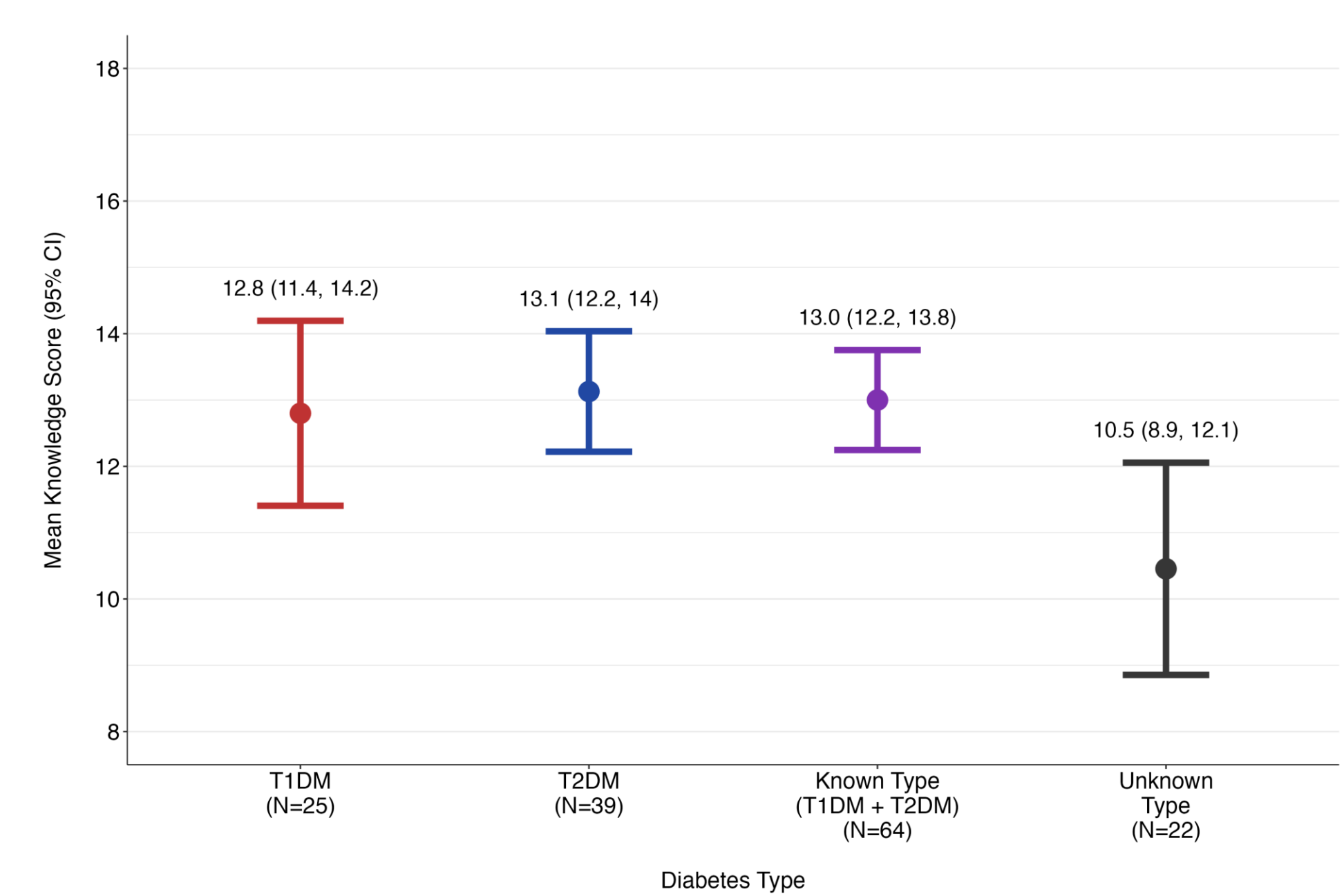
- Approval sought from Institutional Review Board at MCW and from UPTH, a tertiary health facility
- Survey implementation conducted from June – July 2024 (4 weeks) at UPTH
- Patients with T1DM or T2DM at UPTH's pediatric & adult endocrinology departments identified to complete survey. If patient <18yrs or otherwise impaired, adult parent/guardian identified to complete survey on their behalf
- Patient survey comprised of **63 questions total**, evaluating **7 of 12 CHC domains**. This project evaluates the Knowledge, Attitudes, and Behaviors domains
 - Of 63 questions, 33 identified as single-answer multiple choice questions.
 - 18 / 33 categorized as **"Knowledge"** - True/False questions focused on identifying respondents' understanding of health-related information, medical terminology.
 - 4 / 33 considered **"Attitudes,"** evaluating positive dispositions towards health & healthcare that are valued in medical settings.
 - 2 / 33 classified as **"Behaviors,"** assessing actions and practices that align with healthcare norms and expectations.
- Respondents' scores summed and analyzed using descriptive statistics.

Results

How much do survey respondents know about their condition?

General

Mean Score on Knowledge Domain among T1DM vs. T2DM vs. Known Type vs. Unknown Type



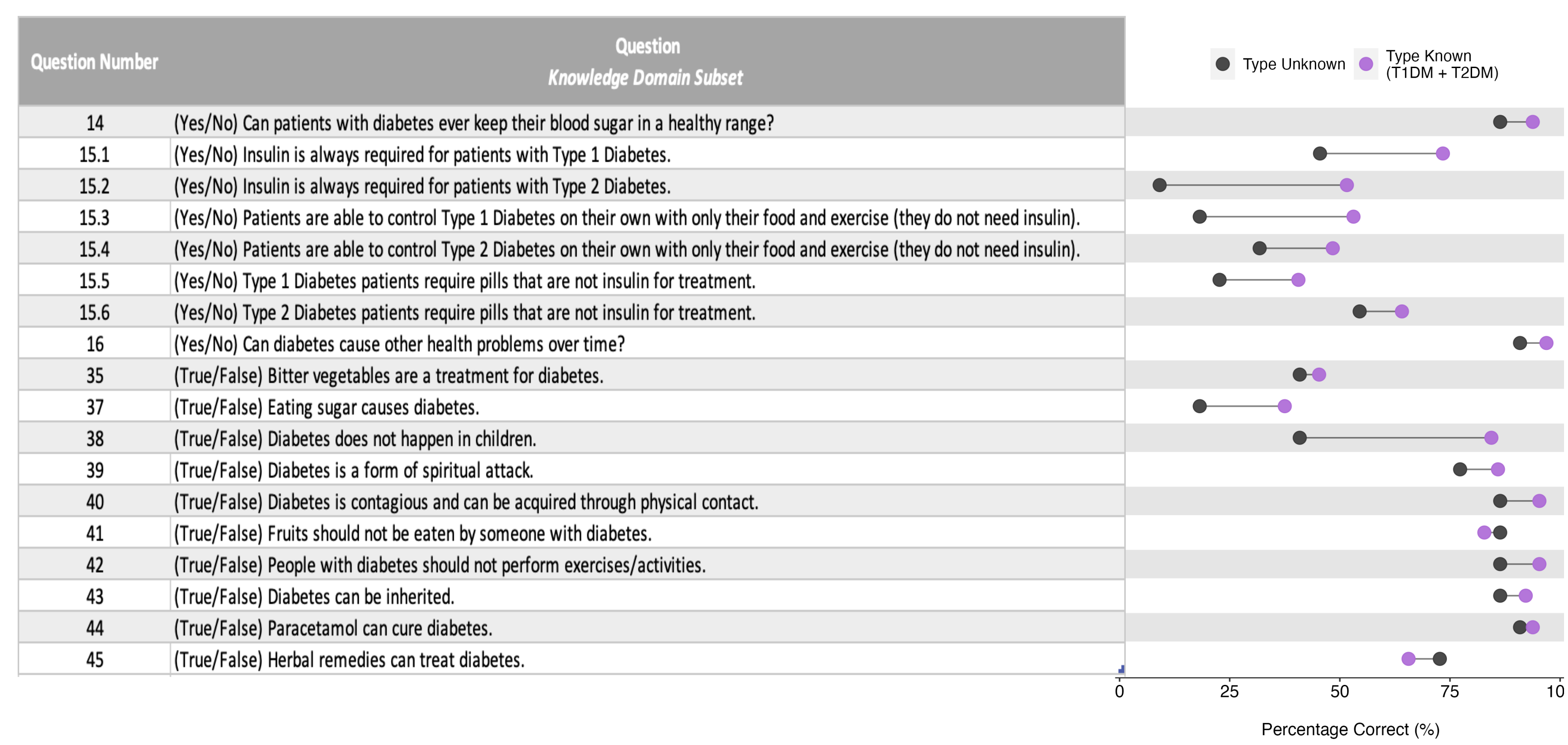
Key Findings

Mean difference in Knowledge scores between T1DM vs. T2DM = 0.3 (95% CI: -1.2 – 1.9, p = 0.675)

Mean difference in Knowledge scores between Known Type vs. Unknown Type = 2.5 (95% CI: 1.0 – 4.1, p = 0.002)

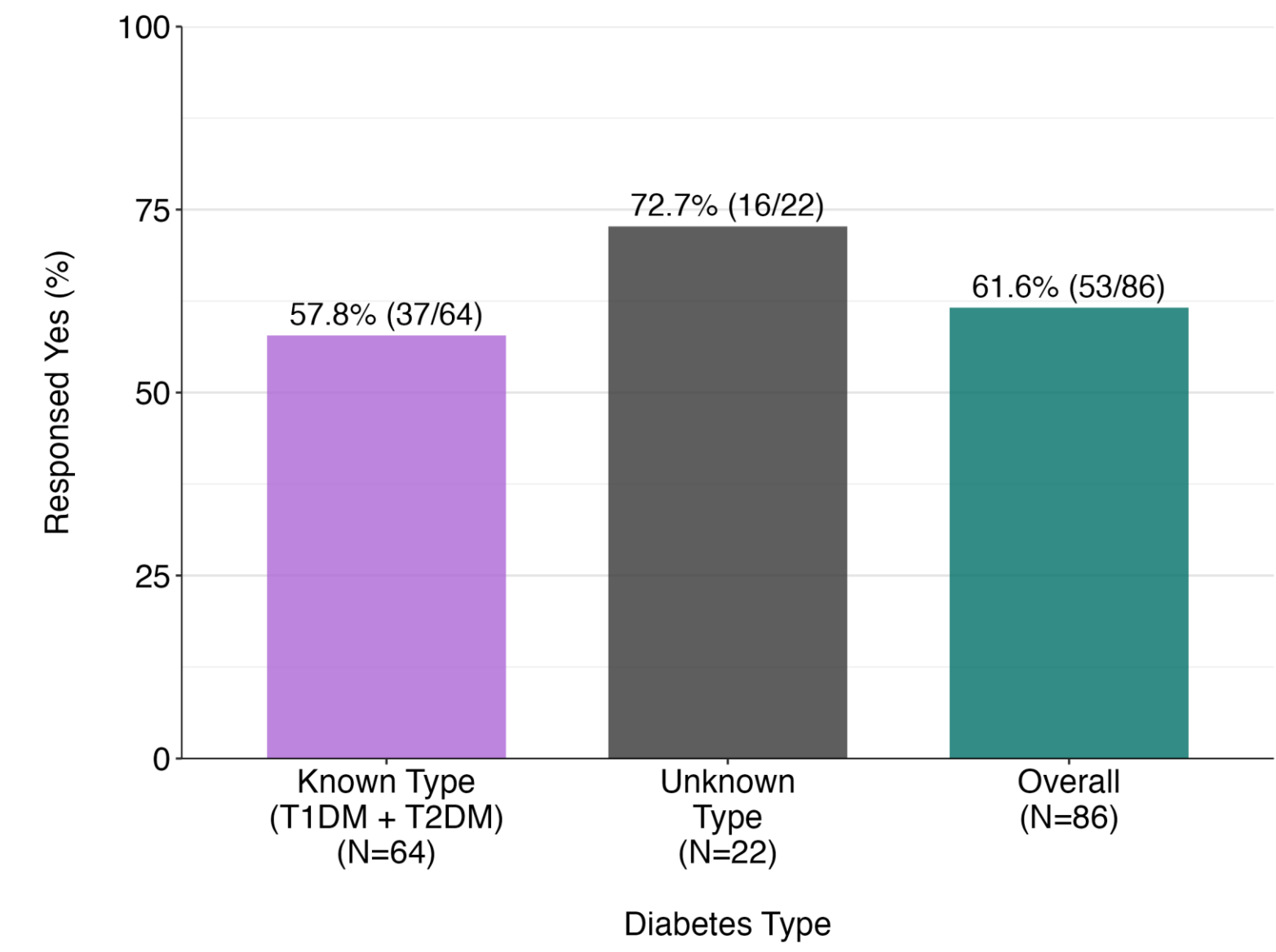
Specific

Knowledge Domain Questions – Known Type vs. Unknown Type Performance



What are survey respondents' attitudes towards their condition?

Percent of Known Type vs. Unknown Type vs. Overall Who Find Daily DM Management Difficult



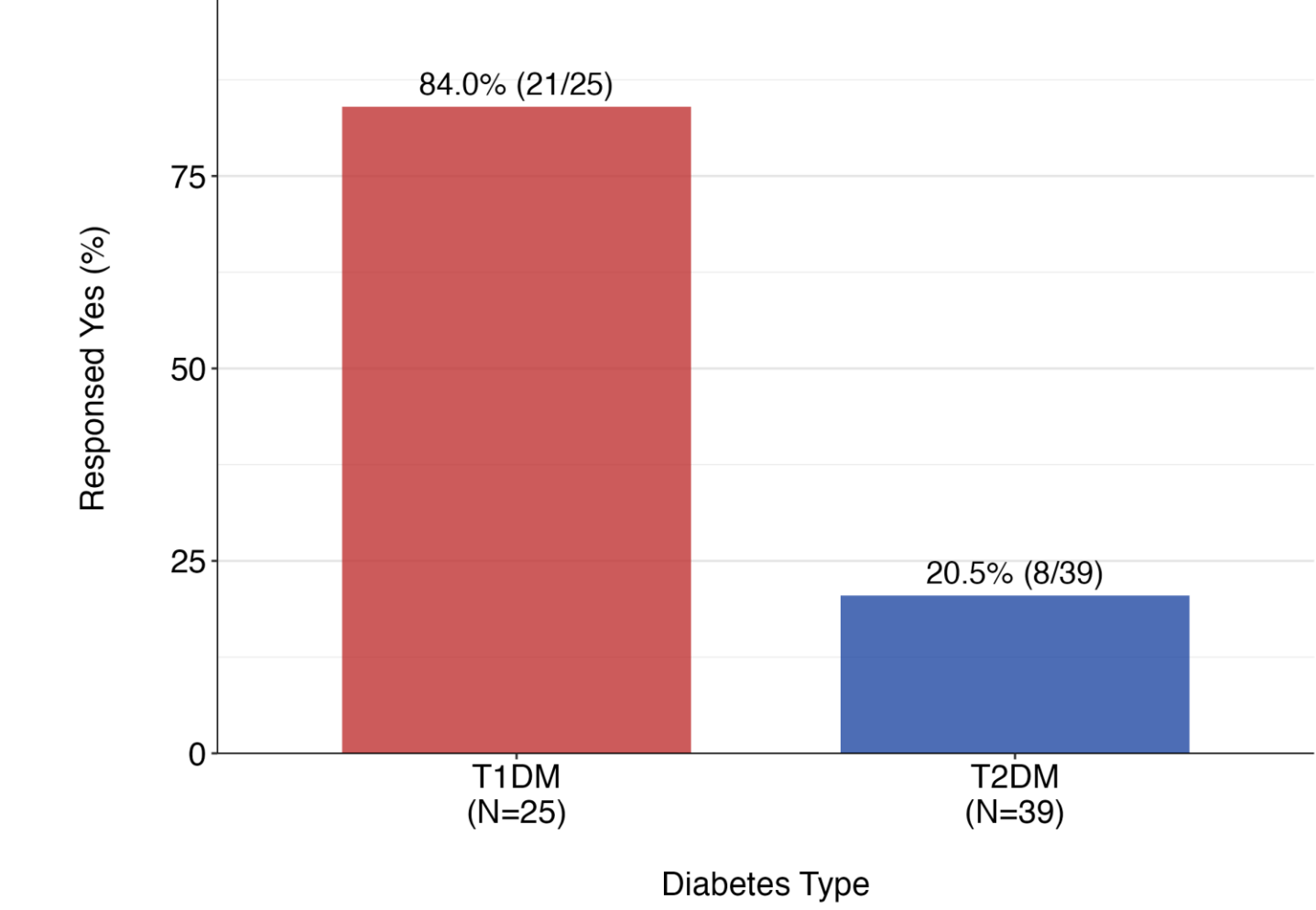
Key Findings

A greater percentage of Unknown Type individuals find it difficult to manage their DM daily compared to Known Type (72.7% vs. 57.8%, p = 0.011).

Overall, 61.6% of all respondents find it difficult to manage their DM daily, regardless of T1DM or T2DM.

How are survey respondents behaving with regards to healthcare recommendations?

Reported Pre-Meal Insulin Usage Between T1DM vs. T2DM



Key Finding

A significantly larger percentage of T1DM patients report any pre-meal usage of insulin compared to T2DM individuals (84.0% vs. 20.5%, p < 0.001).



Discussion

Knowledge

- Significant difference in knowledge** between patients/families aware of their type of DM (Known Type, T1DM + T2DM), and those unaware (Unknown Type)
- Suggests that for this population, Diabetes Self-Management Education and Support (DSMES) programs should focus on **targeted, disease-specific education** to improve DM self-management and health literacy
- Integrating **mental health and peer support networks** may reduce stigma and improve patient education

Attitudes

- Significant difference** in percentages of patients/families who find daily management of diabetes challenging when comparing Known Type and Unknown Type
- Suggests that such targeted DSMES programs may **improve both Knowledge and Attitude** among individuals regarding their chronic disease, and **ease patient burden** of daily management

Behaviors

- Sixteen percent of T1DM not reporting insulin usage suggests **area of further targeted intervention** to ensure proper disease management
- Should also include **community-based programs** to improve behavioral support, medication availability, and adherence monitoring
- Strengthening **patient-provider communication** and **follow-up systems** may improve behavior-related gaps and long-term outcomes

Future Work

- Complete comprehensive CHC analysis across multiple domains for both patients and providers using survey responses
- Use standard T1DM/T2DM DSMES curriculum for children & culturally adapt for Nigerian context with goal to implement 4-day educational camp in summer 2026
- Revamp existing T2DM curriculum for adults and build capacity through DM educator training & certification for healthcare professionals by summer 2026

Acknowledgements

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