Patients with **co-morbid ADHD** and **T2DM** have a **higher incidence** of **poor glycemic control**

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Introduction

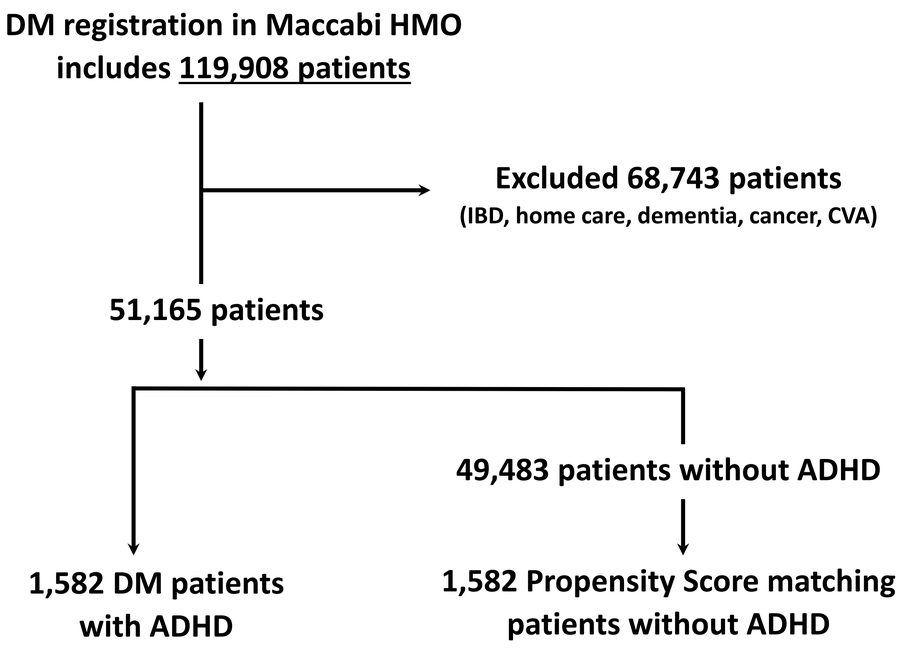
- The prevalence of Diabetes Mellitus (DM) and Attention Deficit Hyperactivity Disorder (ADHD) have increased in recent years.
- Persistence in treatment DM is important in balancing diabetes and preventing complications.
- Patients with ADHD are characterized, among other things, by managerial difficulties, which can affect the adherence and persistence of treatment.

Research Aim

Evaluate the association of ADHD and diabetes glycemic control in patients with Type 2 diabetes in MACCABI HMO. HbA1c levels is used to monitor diabetes control.

Methods

- We used the DM registration in Maccabi HMO to perform propensity-score matching on two groups of patients:
  (1) patients with DM without ADHD
  (2) patients with DM with ADHD
- Propensity-score analyses were based on age, gender and diabetes duration.
- T-test was used to comparing continuous variables, and Mann-Whitney U test was for non-parametric analysis.
- We compared the HbA1c of DM patients with and without ADHD during 2019-2020.
- Multivariate logistic regression was used to compare the rate of patients with HbA1c≥10% 8%, and 9% with and without ADHD during 2019-2020.



Results

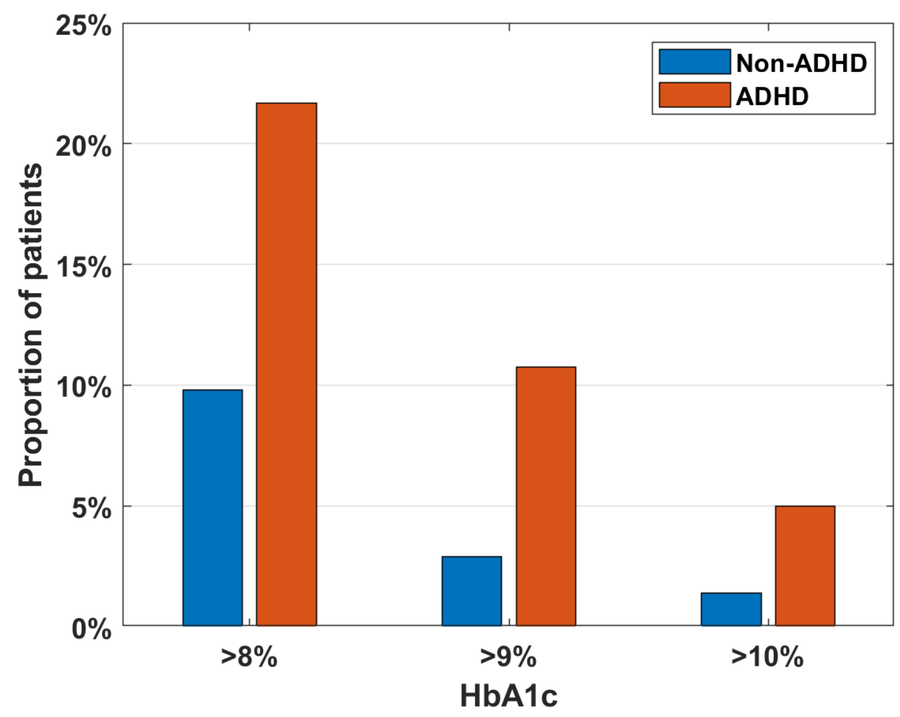
Table 1: Baseline characteristics

	Non-ADHD	ADHD	P-value
Total population	N=1582	N=1582	
Gender (Male)	1071 (67.7)	1071(67.7)	1
Smoking status			
Current smoking	324 (20.8)	309 (19.6)	0.32
In the past	39 (2.5)	52 (3.3)	
Don't smoke	1198 (76.7)	1214 (77.1)	
Socioeconomic status			
Low	471 (29.8)	216 (13.7)	
Medium	526 (33.3)	475 (30)	<0.001
High	583 (36.9)	890 (56.3)	
Diabetes duration (years)	7.59±5.62	7.59±5.62	1
Age (years)	49.02±10.1	49.02±10.1	1
BMI (kg/m^2)	31.0±5.75	31.1±5.6	0.18

Table 2: Multivariate Logistic Regression adjusting for Socioeconomic status and BMI with the dependent variable of HbA1c≥10% ,9% and 8%.

HbA1c Cutoff	Non-ADHD (1,582)	ADHD (1,582)	OR (95% CI)	P-value
>10%	22 (1.4)	79 (5)	4.2 (2.5-6.8)	<0.001
>9%	46 (2.9)	170 (10.7)	4.3 (3.1-6.1)	<0.001
>8%	155 (9.8)	343 (21.7)	2.7 (2.2-3.4)	<0.001

HbA1c diabetic patients with and without ADHD



CONCLUSION:

- The rate of uncontrolled diabetic patients with ADHD (HbA1C >8%, >9% and >10%) was 3-4 times higher than in patients without ADHD.
- Highlights the need for further research on patients with co-morbid ADHD and T2DM to improve treatment.

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