

The Experience of Socially Vulnerable Patients with Diabetes by Treatment Burden and Hemoglobin A1c: A Mixed Methods Study

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CONTEXT

- Type 2 diabetes mellitus (T2DM) affects over 31 million Americans, particularly socially vulnerable, low income, and minority patients
- Understanding and acting on the patient perceived treatment (tx) burden may improve outcomes
- Exploring the relationship between patient experience of treatment burden and A1c may identify strategies toward improved diabetes control

OBJECTIVE

- To understand how the patient's experience of care and of self-management is associated with perceived treatment burden and with A1c.

STUDY DESIGN: MIXED METHODS

- Cross-sectional surveys assessing patient experience of clinical care & self-management is associated with perceived treatment burden & A1c
- Linked electronic health record (EHR) data
- Qualitative analysis: exploring convergence and divergence within each of 4 strata: 1) High A1c, high tx burden; 2) High A1c, low tx burden; 3) Low A1c, high tx burden; 4) Low A1c, low tx burden
- Setting: 6 urban safety-net primary care clinics
- Population: 192 adults with T2DM & at least one additional chronic condition

STUDY DESIGN: OUTCOME MEASURES

- A1c, Patient Experience with Treatment and Self-management questionnaire (PETS)
- Content analysis of open-ended questions:
 - Trusted clinic team member & useful resource
 - Most burdensome chronic condition, why

RESULTS

Table 1. Descriptive Statistics

Patient Characteristics	N = 192
Age in years, mean (range)	55 (23-75)
Female sex, n (%)	120 (63)
Race, n (%)	
White	67 (36)
Black	84 (45)
Other	37 (19)
Ethnicity: Non-Hispanic, n (%)	153 (80)
Birthplace, n (%)	
U.S.A.	135 (71)
Any health coverage, n (%)	154 (87)
Preferred language, n (%)	
English	153 (80)
Spanish	32 (17)
Labs/Vitals, mean (SD)	
BMI, kg/m ²	34 (8)
A1c, %	7.6 (2.0)
Number of medications, n (%)	
1-3	37 (21)
4-5	42 (24)
6-9	57 (32)
10+	41 (23)
Insulin use, n (%)	91 (46)
Smoker past 7 days, n (%)	55 (29)
PETS total score, mean (SD)	34 (26)

RESULTS

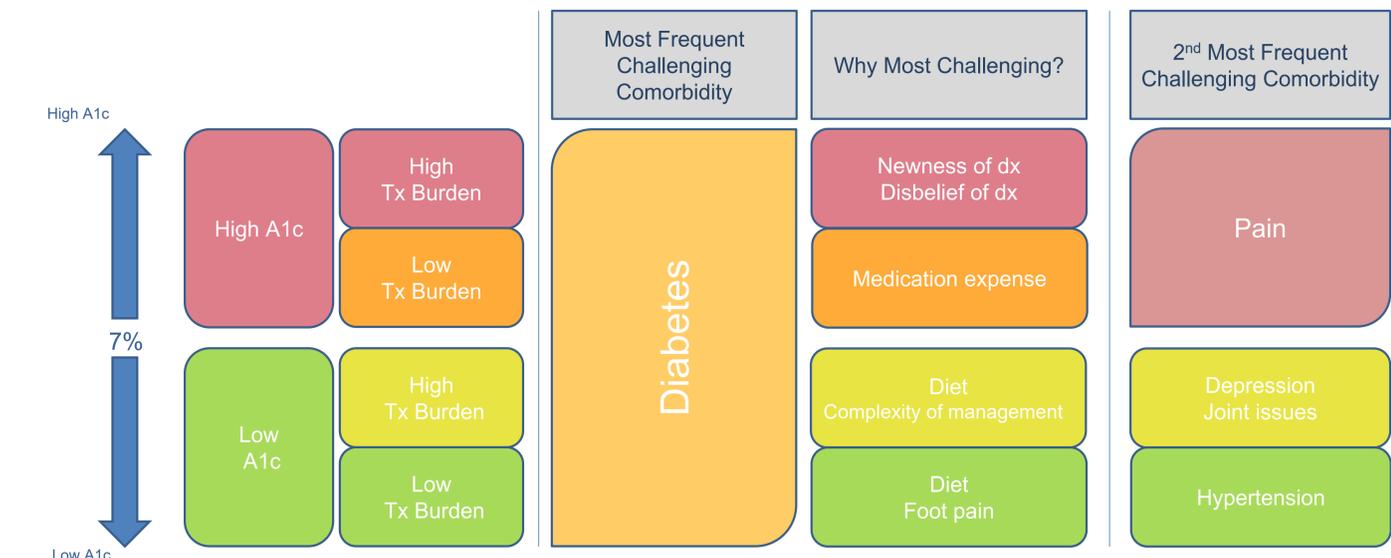
Table 2. Correlations Between Select Patient Survey and EHR Items, r (p-value)

	PETS total score	A1c
Glycosylated hemoglobin (A1c)	0.02 (0.82)	---
PDSMS	-0.50 (<0.001)	-0.23 (0.001)
Diabetes-related distress		0.18 (0.13)
Insulin use		0.56 (<0.001)
Number of medications		0.04 (0.60)

PETS = Patient Experience with Treatment Survey, measures perceived treatment burden with higher value = more burden
PDSMS = Perceived Diabetes Self-Management Survey, measures self-efficacy in diabetes self-management with higher value = greater efficacy

RESULTS IN PROGRESS

Figure 1. Open-Ended Survey Item Content Analysis Stratified by High/Low A1c and High/Low Treatment Burden (PETS) – preliminary findings



EXPECTED CONCLUSIONS

- The relationship between perceived treatment burden and engagement in self-management & clinical care. Understanding these nuances can inform intervention development to optimize care and decrease treatment burden

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