An interprofessional student-faculty collaborative telehealth program to address poorly controlled diabetes and social determinants of health exacerbated by the COVID-19 pandemic

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BACKGROUND AND NEEDS

- The impact of the COVID-19 pandemic on primary care practices has been profound, transforming technologies, workflows, and physician-patient relationships.
- As such, providers have had even less time to care for patients' chronic conditions. In needs assessment interviews, primary care physicians (PCPs) generally expressed the need for additional time with patients to explain medication regimens and available resources as well as greater support regarding patient motivation and mental health issues.
- Patients with diabetes are at greater risk of COVID-19-related morbidity and mortality and may delay care for non-urgent health issues due to the fear of in-person interactions or face other pandemic-related barriers.
- If these growing pandemic-exacerbated social disparities are not identified and addressed in the setting of chronic disease care, patient outcomes will suffer.

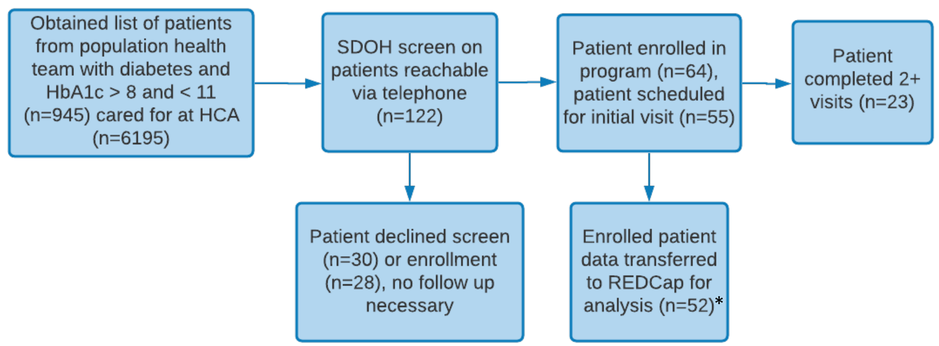
OBJECTIVES

- Adapt an existing student-faculty collaborative practice model to a telehealth platform for diabetes management
- Assess the impact of the intervention on diabetes outcomes
- Measure the effect of screening for and addressing social determinants of health (SDOH) on patients with poorly-controlled diabetes

SETTING AND PARTICIPANTS

- Healthcare Associates (HCA) is the primary care practice at Beth Israel Deaconess Medical Center (BIDMC) is a tertiary care center in Boston, Massachusetts and a teaching hospital of Harvard Medical School (HMS)
- SDOH screening and recruitment calls were made by medical, nurse practitioner, physician assistant, and undergraduate student volunteers
- 52 patients were enrolled and participated in structured diabetes management visits carried out via telehealth at the student-faculty clinic with care provided by medical and nurse practitioner students supervised by a certified diabetes care educator/nurse practitioner and attending physicians
- Additional visits with dietitian students and their faculty were available to patients

WORKFLOW



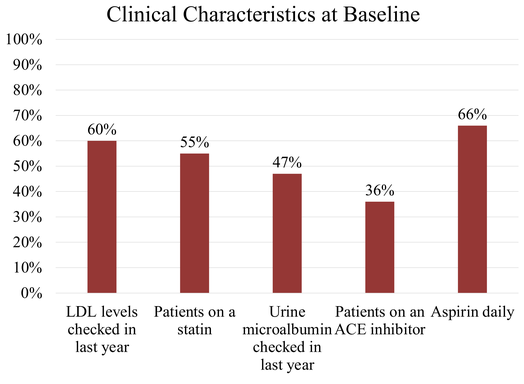
*Of 64 patients who enrolled, 52 have been successfully analyzed by our staff. All calculations in Evaluation for "enrolled" patients are based on these 52 records.

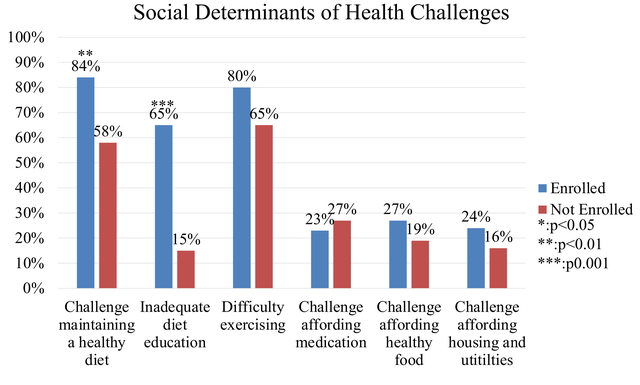
EVALUATION

	Age (median)	Female Gender	Race	BMI (median)	HTN	HCL	CVD	Sees an Endocrinologist
Enrolled	64 (IQR=59-70.5)	50%	23 White 14 Black 5 Hispanic	31.75 (IQR=26.7-35.525)	81%	83%	19%	19%
Did not enroll	64 (IQR=56-68)	39%	10 White 11 Black 1 Hispanic	31.25 (IQR=29.2-35.5)	79%	79%	21%	21%
p-value	0.5	0.4	0.5	0.5	0.8	0.7	0.8	0.9

HTN: Hypertension; HCL: Hyperlipidemia; CVD: Cardiovascular Disease

Table (left): Baseline characteristics for patients who were screened who did and did not enroll in our study.
Graph (left): Enrolled patients with selected clinical characteristics who completed at least one visit (n=47)
Graph (right): Percent of enrolled & non-enrolled patients endorsing each SDOH challenge





EVALUATION

- Baseline characteristics did not differ significantly between patients who enrolled and did not enroll in our program
- Patients faced multiple care gaps and social challenges at baseline that could be addressed by the program
- Patients enrolled in the programs had varying levels of engagement with their medical teams and of follow-up appropriate for their diabetes in the past year
- Despite facing multiple SDOH challenges, patients endorsed high motivation (median 7.5/10 ± 2.2) and confidence (median 7/10 ± 2.1) in managing their diabetes during their SDOH screening calls.

DISCUSSION

- Integrating SDOH screening into a telehealth diabetes program is a feasible and efficient way to assist patients with uncontrolled diabetes with both medical and social needs.
- Despite reporting high levels of motivation and confidence in managing their diabetes, many patients reported needing help with and were not up to date with diabetes management.
- Patients reported difficulty maintaining a healthy diet, affording healthy food and medications, and exercising.
- Our data highlight how SDOH may modulate patients' ability to manage diabetes in a practical setting.

NEXT STEPS

- Study the program's impact on clinical outcomes, SDOH needs, and patient and provider satisfaction.
- Implement our telehealth model to address medical and socioeconomic burdens faced by patients with other chronic conditions.

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