Connecting patients to food resources within the clinical setting

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STUDY 1

JAMA Network | Open™

Original Investigation | Equity, Diversity, and Inclusion

Patient and Care Team Perspectives on Social Determinants of Health Screening in Primary Care
A Qualitative Study

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Funding: Prisma Health Seed Grant program 2022

STUDY 1 - METHODS

- Study population
  - Prisma Health Upstate patients, 18+ years old
  - Telemedicine or office visits in family medicine or internal medicine practice
  - February 22, 2022 – May 10, 2022

Quantitative analysis

Binary logistic regression examining SDOH screening completion at time of visit with practice-level clustered standard errors

Variable	Description
Outcome variable	
Any SDOH screening vs. no SDOH screening	Any SDOH screening (visit where patient answered at least one SDOH question)
Independent variables	
Practice type	Internal or family medicine
Clinician type	Medical Doctor, Doctor of Osteopathic Medicine, Nurse Practitioner, Physician Assistant
Patient attributes	Age, sex, race, ethnicity, preferred language, payer

Qualitative analysis

Nine semi-structured interviews with care team members (physicians, advanced practice clinicians, administrative and nursing staff) from July 6, 2022 - March 8, 2023

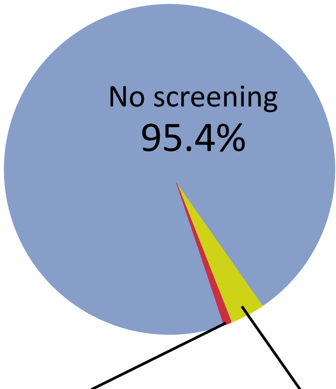
Patients and community stakeholders in University of South Carolina's Patient Engagement Studio were also consulted.

All stakeholder groups provided perspectives on potential barriers and facilitators to SDOH screening.

STUDY 1 – RESULTS (1 OF 4)

SDOH screening uptake

Number of visits: 78, 928
Number of practices: 22



Variables	Odds ratio	95% CI
Provider title/qualifications (ref. = Doctor of Medicine)		
Doctor of Osteopathic Medicine	1.66	0.832 - 3.32
Nurse Practitioner	0.131*	0.028 - 0.617
Physician Assistant	3.11*	1.19 - 8.10
Patient race (ref. = White)		
Asian	1.69**	1.25 - 2.28
Black/African American	1.49**	1.10 - 2.01
Unknown	1.44**	1.12 - 1.85
Other race	1.23	0.857 - 1.77
Two or more races	1.48**	1.12 - 1.94
Primary payer (ref. = Private/commercial)		
Medicaid	0.617**	0.479 - 0.795
Medicare	1.19	0.666 - 2.14
Medicare Advantage	1.11	0.559 - 2.22
Managed Care	1.17**	1.07 - 1.29
Uninsured/Access Health	0.256**	0.098 - 0.666
Tricare	0.711**	0.548 0.922

Table: regression results predicting odds of screening completion (only significant results included)
Models also included sex, age, ethnicity, family practice type, preferred language

STUDY 1 – RESULTS (2 OF 4)

Care team member experiences - barriers to SDOH screening implementation

Patient perceptions about SDOH screening
"I just feel like if patients are embarrassed, then [they] don't want you to really know what's going on. They won't be truthful. They won't tell you if there's issues with food, if there're issues with money."

Clinician time constraints for screening
"I would say that's the hardest part about this, is it's just another thing. We don't have a visit for social determinants of health. We have visits for about 20 things we're trying to accomplish."

Number of questions and content overlap
"It's very repetitive because if we're doing the PHQ-2 and the PHQ-9 around their anxiety and depression and those type of things, which are part of our rooming process, a lot of those questions are already being asked."

Training and resources for implementing SDOH screening and referrals
"If we identify problems, we're not necessarily able to take care of them. As I'm not a social worker, all I can do is direct, and hopefully the handouts are strong enough for what we [refer patients to]. I'm not so sure about that either."

STUDY 1 – RESULTS (3 OF 4)

Care team member experiences - facilitators to SDOH screening implementation

Focusing on patient-clinician communication

“Our staff is really good at communicating with patients from beginning to end, like intake into the clinic. So, I am making an assumption that when this is presented to them, it’s done in a non-threatening, or not very invasive or probing way.”

Having practice champions

“So, nurse in our office can also mean CMAs, certified medical assistants. So, the RNs and CMAs are the main drivers, and then the providers theoretically review it and look at it and make sure it's put in afterwards. But usually, it really is our nurses that are doing it ultimately.”

Enhancing support for patients’ SDOH needs:

“We do have a referral coordinator, and so she will follow up with all referrals and close the loop and make sure the patient actually does go to the referral or tries to get them scheduled to go to wherever the doctor's referring them to. And she'll make sure that patient did follow through with that.”

STUDY 1 – RESULTS (4 OF 4)

Patient Engagement Studio feedback

SDOH screening appointments:
"I can see this fitting in best, like, in an annual physical appointment that's a little longer."

Patient-provider rapport building:
"I think the most important thing is for the person who has a good ability to develop rapport with people and trust."

SDOH screening location:
"Environment for the most honest feedback will be actually inside the doctor's office."

Phrasing of SDOH questions:
I think it needs to be beyond the scope of domestic violence."

Following-up after referrals:
"It's almost like there has to be one more step... You have to get that person before they leave as much as possible."

STUDY 1 - IMPLICATIONS

- Informs data collection methods for SDOH needs at Prisma Health via patient and care team member perspectives
  - E.g., evidence for increasing non-responses for SDOH questions appearing later in survey order

- Provides sample size estimates of SDOH screening rates at Prisma Health primary care practices for Duke Endowment grant submission
  - Funded and started 01/01/2023, PI: Angela Jenkins, Prisma Health (Rudisill, Macauda, Self, Arnold School of Public Health and Donelle, Nursing, Univ of SC on this grant)

STUDY 2

Resource navigator support for patients with food insecurity and diabetes and/or hypertension

- Darin Thomas, MSW, MBA, Addiction Medicine Center, Prisma Health, Greenville (PI)
- Caroline Rudisill, PhD, MSc, Arnold School of Public Health, University of South Carolina (sub-award for research PI)
- Stella Self, PhD, MS, Arnold School of Public Health, University of South Carolina
- Deeksha Gupta, MS, MA, Arnold School of Public Health, University of South Carolina
- Alain Litwin, MD, MPH, Addiction Medicine Center, Prisma Health; University of South Carolina School of Medicine, Greenville
- Alex Ewing, PhD, MS, Data support core, Prisma Health, Greenville
- Lynette Ramos-Gonzalez, Accountable Communities, Prisma Health

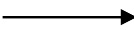
Funding: Duke Endowment

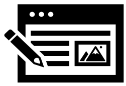
STUDY 2 - METHODS

Implementation of resource navigator program

Study dates:
July 12, 2021 – December 31, 2022 with six-months follow-up

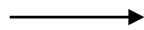
Three primary care practices:
2 urban and 1 rural



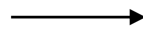


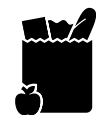
Patients screened for eligibility via EPIC at their clinical visit:

- 18+ years of age,
- having diabetes and/or hypertension
- having food insecurity (using Hunger Vital Sign™)



Resource navigator contacts eligible patients for participation and research consent





- Resource navigator connects patients to community-based resources
- Collects EQ-5D-5L surveys at baseline, 6 months and 12 months

Goal: To evaluate whether resource navigator support for food-insecure patients with diabetes and/or hypertension improves short-term clinical outcomes (HbA1c, systolic and diastolic blood pressure, BMI) versus usual care (SDOH screening only)

STUDY 2 – RESULTS ON EUROQOL-5D-5L (1 OF 2)

Pre-publication results

STUDY 2 – RESULTS ON EUROQOL-5D-5L (2 OF 2)

Pre-publication results

IMPLICATIONS

- Demonstrates possible quality of life benefits of resource navigator support

- Provides quality of life estimates for further cost-effectiveness analysis

- Preliminary evidence for related RCT

THANK YOU