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Motivators, Barriers, and Preferences to Engagement With Offered Social Care Assistance Among People With Diabetes: A Mixed Methods Study

Alicia J. Cohen, MD, MSc^{1,2,3}, Nicole Isaacson, MPH⁴, Michelle Torby, BA⁴, Alyssa Smith, MPH⁴, Guanghao Zhang, MS⁵, Minal R. Patel, PhD, MPH⁴

¹Center of Innovation in Long Term Services and Supports (LTSS-COIN), VA Providence Healthcare System, Providence, Rhode Island

²Department of Family Medicine, Warren Alpert Medical School, Brown University, Providence, Rhode Island

³Department of Health Services, Policy, & Practice, School of Public Health, Brown University, Providence, Rhode Island

⁴Department of Health Behavior & Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan

⁵Department of Biostatistics, School of Public Health, University of Michigan, Ann Arbor, Michigan

Abstract

Introduction: A substantial proportion of patients screening positive for social risks either decline assistance or do not follow-up with offered resources. This study examined patient interest in and engagement with offered social care assistance among adults with poorly controlled diabetes at an academic medical center.

Methods: Surveys (*n*=307) and purposively sampled follow-up interviews (*n*=40) were conducted 6 months after randomization to receive guided online self-navigation or in-person assistance to address unmet social needs. Integrated mixed methods (data collected in 2019–2021) explored the motivators, barriers, and preferences regarding the uptake of offered assistance. Results were analyzed in 2021 using descriptive statistics, rapid qualitative analysis, and joint display models.

Address correspondence to: Minal R. Patel, PhD, MPH, Department of Health Behavior & Health Education, School of Public Health, University of Michigan, 1415 Washington Heights, SPH 1, Room 3810, Ann Arbor MI 48109. minalrp@umich.edu.

CREDIT AUTHOR STATEMENT

Alicia J. Cohen: Conceptualization, Data curation, Writing - original draft, Writing - review and editing. Nicole Isaacson: Data curation, Writing - review and editing. Alyssa Smith: Data curation, Writing - review and editing. Alyssa Smith: Data curation, Writing - review and editing. Guanghao Zhang: Data curation, Writing - review and editing. Minal R. Patel: Conceptualization, Data curation, Writing - original draft, Writing - review and editing.

SUPPLEMENT NOTE

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Results: A total of 77% of people randomized to online self-navigation and 14% randomized to in-person assistance engaged with offered assistance. Motivators for engagement were similar across groups and included ease of use, anticipating assistance that could address 1 or more needs, and interest in learning more about available resources. Barriers to engagement included not needing or desiring assistance, participants perceiving that offered assistance was not relevant to their needs or that they would not qualify, competing priorities/forgetting, previous negative experiences or stigma, and technology or access challenges (online self-navigation group). Preferences around offered assistance that directly addressed barriers to uptake included changing messaging and framing around offered help and the ability to tailor modalities.

Conclusions: There are key barriers to the use of social care assistance that may directly reflect the process by which individuals are screened and offered assistance. Strategies to increase uptake should be patient centered and ideally provide multiple options for type of assistance and mode of engagement.

INTRODUCTION

Increasing recognition of the impact of health-related social needs (e.g., housing, food, transportation insecurities, medical debt) on health outcomes by payers, policy makers, and delivery systems has led to a burgeoning investment in the integration of social care into medical care. This issue is especially salient to diabetes where social risks persist as key reasons why >31% of people with diabetes do not meet target goals for glycemic control or blood pressure. Models for social care assistance vary widely, from screening modality to whether screening is patient administered or administered by providers/staff and to the intensity of offered interventions. Assistance may range from more passive models such as providing patients a list of resources to more intensive in-person navigation and longitudinal follow-up to self-navigation approaches through mobile application or web-based methods.

Despite the widespread availability of such social care assistance models, upward of half of patients screening positive for social risks either decline assistance or do not follow-up with offered resources.^{2–13} Reasons include patients not perceiving a need for resources or feeling that offered resources would not be helpful, difficulty in navigating resources, being overwhelmed, competing priorities, not remembering receiving the information, stigma, and previous negative experiences with social care assistance.^{2,3,14}

Little is known about how reasons for declining social care assistance may vary by the type of assistance offered. This mixed-methods study examined motivators, barriers, and preferences regarding the use of social care assistance utilizing data from a large-scale RCT investigating 2 modalities of assistance among people with poorly controlled diabetes: guided online self-navigation and in-person assistance.

METHODS

This study employed an explanatory sequential mixed method design^{15,16} such that data from surveys informed sampling for subsequent qualitative interviews to gain a richer understanding of the quantitative findings and participant experiences surrounding the uptake of social care assistance. Study design, sampling, and qualitative data collection were

guided by a phenomenological approach to better understand the phenomenon of engaging or not engaging with offered assistance.

Study Sample

Data came from a 6-month follow-up assessment of participants in an RCT evaluating the approaches to addressing social risks among people with poorly controlled diabetes. All study procedures were approved by the University of Michigan IRB. Potential participants meeting the following criteria were identified through the University of Michigan's Diabetes Research Registry¹⁷ and electronic health record: (1) aged 18–75 years; (2) diagnosed with type 1 or type 2 diabetes with prescribed medication; (3) has HbA1c 7.5% within the past 6 months; (4) has a positive screen for at least 1 social risk, including financial burden, food insecurity, and/or cost-related medication nonadherence; and (5) has mobile phone access. Exclusion criteria included significant cognitive impairment and active participation in another diabetes-related research study.

Data analyses were conducted on a subset of participants recruited for the RCT. For the RCT, a total of 5,451 potential participants were contacted between June 2019 and September 2021; 893 were confirmed eligible. Of those, 522 (58%) consented to participate and were randomized to 1 of 2 study arms as follows:

- 1. Guided online self-navigation provided login information for CareAvenue, an interactive website that builds participants' capacity to address financial strain and other social risks while managing diabetes.¹⁷ The website provides step-by-step guidance on navigating a set of low-cost resources on the basis of identified needs. Participants also received weekly interactive voice response calls and text messages to encourage the use of resources and provide support for diabetes self-management.
- 2. In-person assistance provided contact information for the Guest Assistance Program (GAP). GAP social workers provide assistance and resources for medical and nonmedical needs to patients receiving care within the local health system. Participants were responsible for reaching out to GAP. Participants received text messages to support diabetes self-management but only received GAP contact information once to minimize contamination as the active control arm of the larger RCT.

Of 522 participants randomized, 307 (59%) completed 6-month follow-up surveys and were included in this study. A total of 71 participants were lost to follow-up (not reachable [n=15], passed away [n=3], and withdrew from the study [n=53]). Those who withdrew were more likely to be younger, have fewer social risks, have fewer chronic conditions, and to have been living longer with diabetes. Attrition was significantly different between the 2 study arms (guided-self navigation [n=51], in-person assistance [n=20]).

Telephone surveys were administered by trained research staff at baseline and at 6-month follow-up. Semistructured interviews were conducted with a purposive subsample of participants to further explore quantitative survey findings.

Measures

Sociodemographic and medical factors were obtained from baseline surveys. For psychosocial factors, depressive symptoms (Patient Health Questionnaire-4), ¹⁸ diabetes-related distress (Diabetes Distress Scale), ^{19,20} health literacy, ²¹ and social support (ENRICHD Social Support Inventory)²² were examined through validated survey measures. Social risks and diabetes-related needs were measured using items adapted from several well-established social risk screeners^{23–25} and the National Health Interview Survey. Domains included food, housing, energy/utilities, income, employment, medical bills, and diabetes management needs (e.g., blood glucose supplies, medications/insulin, healthy food and meals, physical activity programs, and diabetes education and counseling). Additional measures obtained at the 6-month follow-up included the following:

- **1. Engagement with offered assistance.** *Nonengagement* was defined as participants self-reporting not logging onto CareAvenue/not following up with GAP services.
- 2. Follow-up with recommended resources. Among those who engaged with guided online self-navigation or in-person assistance, follow-up was assessed by self-reported contact with and/or use of any of the recommended resources (yes/no).

Semistructured interviews were conducted with 40 participants who completed 6-month follow-up surveys between July 2020 and April 2021. Participants were sampled on the basis of reported engagement/nonengagement within each arm at 6-month follow-up, attempting to balance across strata. Interview guides were developed through an iterative process. Domains included previous experience with social care assistance, reactions to social care assistance offered during the study, motivators and barriers to following up with recommended resources, and preferences to improve acceptability and/or engagement with offered assistance. Telephone interviews were conducted by research staff experienced in qualitative methods and lasted approximately 30–45 minutes.

Statistical Analysis

Descriptive statistics and bivariate analyses (chi-square and *t* tests) were used to describe the sociodemographic, clinical, and psychosocial characteristics of the sample as well as reasons provided for engagement/nonengagement with social care assistance and follow-up with recommended resources.

Interviews were recorded and professionally transcribed verbatim. Transcripts were analyzed using rapid content analysis. ^{26,27} Transcripts were summarized in a template based on the interview guide to capture key points. After assessment of template adequacy and consistency of use, 2 trained research staff (MT, NI) independently summarized transcripts, compared summaries, and resolved minor discrepancies through consensus. A subset of summaries was divided for review by 2 investigators (MRP, AJC). Using matrix analysis, ²⁸ summaries were categorized by strata of interest. Investigators (MRP, AJC) independently identified, grouped, and then compared and refined key themes.

Integrated analyses were conducted by merging and visually bringing together quantitative and qualitative findings through statistics-by-theme joint displays, which facilitated the emergence of new and synergist insights. ^{16,29}

RESULTS

A total of 307 participants completed 6-month follow-up interviews during the study period: guided self-navigation (n=137) and in-person assistance (n=170). The sociodemographic and clinical characteristics of participants are presented in Table 1. Participants randomized to both modalities were comparable on key sociodemographic characteristics.

A total of 42% (n=130) of the participants engaged with offered assistance (n=106 guided self-navigation arm; n=24 in-person assistance). A total of 77% of the participants in the guided self-navigation group (106 of 137) engaged with assistance, compared with 14% (24 of 170) of participants in the in-person assistance group (p < 0.001). In the guided self-navigation group, higher educational attainment (p<0.001) and higher health literacy (p<0.05) were seen among those who engaged. For in-person assistance, females (p<0.05)and participants with a greater number of social risks (p < 0.01) were more likely to engage. Of those in the guided self-navigation group who engaged with assistance, 85% (n=90 of 106) followed up with resources recommended through the online platform, compared with 33% (n=8 of 24) participants in the in-person assistance group (p<0.001). However, among participants in the in-person assistance group who engaged with assistance, only 38% (n=9 of 24) received a referral to other programs/services for support; of those, 89% (n=8 of 9) followed up with the referral. In interviews, participants in the in-person assistance group who did not receive a referral stated that they either did not qualify for assistance or the offered resources did not apply to their needs. In 1 instance, a participant explained that they did not personally receive a referral because they did not need the resources but passed referral information on to a family member.

The qualitative sample included 40 participants: engaged with guided self-navigation (n=16), nonengaged with guided self-navigation (n=2), engaged with in-person assistance (n=6), and nonengaged with in-person assistance (n=16).

Motivators for engaging with offered social care assistance are presented in Table 2. The most prevalent reasons for following up with offered assistance for both guided self-navigation and in-person assistance, which were also prominent in qualitative data, were that offered assistance addressed 1 or more needs (50%–75%) and that participants were interested in learning more about available resources (50%–66%). Ease of accessing each type of assistance also facilitated engagement (25%–38%).

Barriers to engaging with offered social care assistance are presented in Table 3. A substantial proportion of participants in both the in-person assistance and online navigation groups indicated that they either did not need or were not interested in assistance (27%–38%) or that they did not think the resources would be helpful (14%). Participants also noted in interviews that offered assistance was not relevant to their needs, that they were already aware of resources being offered, or that they felt able to navigate the needed resources on

their own. However, several participants who did not engage with assistance indicated that they kept the information in case they needed assistance in the future.

Another prominent barrier to engagement revealed in qualitative data and, to a lesser extent, in quantitative data was stigma or embarrassment associated with contacting assistance, particularly among those offered in-person assistance. Some participants overcame this barrier and engaged with offered assistance despite noting unease. For others, previous experiences of judgment and loss of dignity were an insurmountable barrier to engagement. One participant specifically identified that pride kept them from contacting offered in-person assistance despite having unmet needs, continuing "I know I'm poor, but mentally I refuse to be poor." Another participant formerly told by a social worker that they were too proud stated, "we have to change the attitude of the so-called helpers... if they change their attitude, maybe I'll go. But I'm not going to put myself through that again." A third participant described dehumanizing assumptions people made when they had previously sought assistance, stating "just because my hair is clean, I'm dressed in clean clothes, I'm driving a halfway decent car, you make the judgment that I don't have a need. Well, I had a life before I had the need." Other participants did not engage with assistance because they did not feel that they had "enough" need and were concerned about taking resources away from others in worse need.

Further reasons participants did not engage with assistance that emerged in both quantitative and qualitative data included competing priorities (16%), lack of time (13%–23%), and, particularly for the in-person assistance group, not remembering receiving information about the resource (13%). Technology-based challenges also presented a barrier to participants in the guided self-navigation group. A substantial proportion of participants who did not use the online platform noted that they either did not have internet access (20%) or a computer (3%), could not figure out how to log into the website (27%), or had other technical difficulties associated with the platform.

Another common barrier related to challenges in qualifying for resources. A number of participants did not engage because past experiences led them to believe that they would not qualify for the needed assistance. Several participants specifically described being ineligible for assistance because they were just above the poverty line. Some who had previously had negative experiences with social care assistance but were willing to re-engage with offered assistance through this study found themselves again denied needed services.

Participants expressed a range of preferences around messaging and framing for offered assistance (Table 4). Participants noted that information should be framed in a respectful and nonintrusive manner, provide clarity around offered services and eligibility, and be presented in a way that supports behavior change.

There were notable differences around how participants preferred to receive offered assistance, which did not always align with the mode of assistance to which they were randomized. Some indicated that they were more likely to engage with offered assistance if it came from their physician, whereas others preferred online modalities. Others expressed

desiring more personalized outreach from a live person, including direct assistance in navigating resources.

DISCUSSION

Patient interest in and engagement with social care assistance were identified through 2 modalities: guided online self-navigation and in-person assistance. Fewer than half of participants engaged with offered assistance, although engagement was substantially higher for guided self-navigation than for in-person assistance. Motivators and barriers to engagement were largely similar for both modalities. Common motivators for uptake of offered assistance across modalities included ease of use, anticipating that assistance could address 1 or more needs, and interest in learning more about the available resources. Although all participants screened positive for 1 or more social risks, a substantial proportion stated that they did not engage with offered modalities because they either did not need or were not interested in the assistance. Barriers to engagement, aligned with previous work.^{2,3,11,14} included participants perceiving that offered assistance was not relevant to their needs or that they would not qualify, feeling able to navigate resources on their own, stigma and/or previous negative experiences with social care assistance, competing priorities, and technological or access challenges. Preferences around offered assistance included suggested changes to messaging and framing and the ability to tailor how assistance is delivered.

The study's findings of noted discordance between patients screening positive for social risk and interest in offered assistance is consistent with findings of previous research. ^{2–13} To the investigators' knowledge, this is the first study to specifically compare interest in assistance between 2 distinct modalities (in-person versus guided online assistance) as well as differences across modalities in both motivators and barriers to engagement. This study also included patients from a range of income levels, with nearly three quarters reporting income above 200% of the federal poverty level, compared with the findings of work examining interest in offered social care assistance focused on predominantly lower-income populations. ^{2,4,6,7,9–11} The fact that the study population, all of whom screened positive for at least 1 financial-related social risk, overall had relatively high income underscores the findings of previous work that experiences of financial hardship are not limited only to those with low income, particularly among individuals with chronic health conditions. ³⁰

Reports of not needing assistance despite a positive screen may be explained, in part, by how social risk screening is conducted. As De Marchis et al. note, positive screens are often inappropriately used to diagnose social needs rather than prompting further assessment. ¹⁴ They additionally discuss that there may be a threshold at which people perceive that assistance is warranted for an identified risk—consistent with this study's finding that some participants felt that they did not have enough need—and some instruments have long lookback periods such that positive screens may not reflect a current concern.

Competing priorities as a prominent barrier to assistance uptake further highlight the need to understand individual context. Patient-centered engagement from screening through offering of assistance, including verifying the relevance of identified risk(s) and establishing salience,

is likely critical to supporting follow-up and uptake of offered assistance. Although the rates of engagement were far lower for the in-person assistance group, this may have been due in part to differences in how the modalities were offered in the context of this RCT. Participants randomized to in-person assistance (active control) received assistance information only once, whereas those randomized to guided online assistance received weekly text messages encouraging them to log onto the platform. Follow-up reminders may have both facilitated engagement and ensured that participants did not forget about assistance information, a barrier noted for the in-person assistance arm in this study and other social care interventions.²

Reports of stigma as a barrier to engagement were less frequently reported among participants randomized to guided online assistance, which may reflect that an online platform allows a greater degree of perceived anonymity or privacy. A substantial proportion of participants across both groups did not engage owing to past negative experiences with social care assistance, including denial of services, challenges in getting help, and experiences of being treated poorly. Experiences of participants who were again denied services during this study may well have implications for their willingness to engage with future social care assistance.

For those randomized to online self-navigation, technology challenges were a notable barrier to uptake. Technology platforms have been on the rise as a way for people to identify and navigate social care resources independently. Although smartphone and broadband access is high in the U.S., a digital divide remains regarding the ability, both technical and financial, to make full use of the technology available. Taken together with this study's finding that there are pronounced differences around how people prefer to receive offered assistance (e.g., online modalities, personalized outreach), there is unlikely to be a one-size-fits-all approach.

Limitations

There are limitations to this study that should be noted. Participants were recruited from an ongoing RCT during the coronavirus disease 2019 (COVID-19) pandemic, and the study faced challenges with recruitment owing to institutional pauses in research. This study's sampling for qualitative interviews was contingent on rolling enrollment in the study and subsequent completion of 6-month follow-up surveys. Owing to uneven distribution of participants eligible for interviews across groups of interest, it was difficult to recruit the target number of interview participants in some of the predefined strata. Despite imbalances in sample size, saturation was reached for 3 of the 4 groups. Although similar themes emerged across interviews in the nonengaged self-navigation group, saturation may not have been reached, which may limit the interpretation of these findings. The pandemic may have also influenced behavior and engagement with social care assistance compared with what may have occurred outside of a pandemic. Furthermore, this study's findings may be subject to recall bias given that surveys and interviews took place 6 months after participants were offered social care assistance and were limited to self-report data for comparability between modalities. Participants were also randomized to assistance arms, therefore assigned modalities may not have aligned with individual preferences.

Both modalities also had varying levels of reminders and prompts, which may limit the generalizability of findings. Finally, this was a sample of people with diabetes and poor glycemic control from a single health system, also limiting generalizability.

Despite limitations, these findings have important implications for research and practice. There is a critical need to fill evidence gaps around social and medical care integration, including psychometric validity of screening instruments, which may directly impact how results are interpreted and acted on. Approaches to support the uptake of assistance should be grounded in behavior change theory and strategies, include an awareness of the influence of previous experiences with social care assistance, support heterogeneous preferences, and reflect patient centeredness. More research is needed to establish evidence-based best practices for how interventions can be tailored to better reach those who may otherwise not engage with offered resources.

CONCLUSIONS

Among people with diabetes who endorsed social risks, a number of barriers prevented engagement with offered social care assistance, ranging from previous negative experiences and stigma to not feeling that offered assistance was needed. Participants also expressed diverse preferences around how they would like to receive social care assistance. Strategies to increase engagement with offered resources need to be mindful of both individual-and population-specific barriers and ideally provide multiple options for how assistance is offered to improve the efficacy and reach of social care interventions.

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Demographic, Psychosocial, and Clinical Characteristics of the Sample (N=307)

Table 1.

		Guided	Guided self-navigation,	on,	In-pers	In-person assistance,	e,
Factors	Total sample, $n \ (\%)$		137 (45)			170 (55)	
	(N=307)	Not engaged 30 (23)	Engaged 106 (77)	p-value	Not engaged 144 (86)	Engaged 24 (14)	p-value
Demographic							
Age, years, mean (SD)	54 (12)	56 (12)	53 (13)	0.67	54.5 (12)	56 (11)	0.63
Sex				98.0			0.02
Female	174 (57)	18 (60)	63 (60)		72 (50)	19 (79)	
Male	131 (43)	12 (40)	42 (40)		71 (50)	5 (21)	
Race				0.09			0.48
Non-Hispanic White	199 (65)	18 (60)	74 (70)		94 (65)	12 (52)	
Non-Hispanic Black or African American	49 (16)	4 (13)	16 (15)		21 (15)	7 (30)	
Hispanic	14 (5)	2 (7)	2 (2)		(9) 6	1 (4.5)	
Asian	10 (3)	0 (0)	3 (3)		6 (4)	1 (4.5)	
Multiple race	25 (8)	6 (20)	(9) 9		10 (7)	2 (9)	
Other	9 (3)	0 (0)	5 (5)		4 (3)	0 (0)	
Married or partnered (% yes)	181 (60)	14 (47)	62 (59)	0.29	88 (61)	17 (71)	0.49
Income as a percentage of the poverty level				0.97			0.15
<100%	40 (14)	3 (12)	15 (15)		18 (13)	4 (17)	
100%-200%	48 (17)	5 (19)	16 (16)		21 (15)	6 (26)	
201%-400%	120 (42)	11 (42)	42 (42)		62 (45)	5 (22)	
>400%	80 (28)	7 (27)	27 (27)		38 (27)	8 (35)	
Education				0.001			0.89
Less than high school	3 (1)	1 (3)	2 (2)		0 (0)	0 (0)	
High school graduate or GED	32 (10)	3 (10)	12 (11)		14 (10)	3 (12.5)	
Some college	137 (45)	21 (70)	35 (33)		(48)	11 (46)	
College degree	135 (44)	5 (17)	57 (54)		61 (42)	10 (42)	
Employment				0.20			0.39
Employed: full-time	98 (32)	7 (23)	34 (32)		52 (36)	5 (21)	
Employed: part-time	22 (7)	5 (17)	(9) 9		10 (7)	1 (4)	

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Factors	Total sample, $n \binom{96}{9}$	Guided	Guided self-navigation, n (%) 137 (45)	on,	In-pers	In-person assistance, n (%) 170 (55)	, Se
	(N=307)	Not engaged 30 (23)	Engaged 106 (77)	p-value	Not engaged 144 (86)	Engaged 24 (14)	p-value
Unemployed	19 (6)	1 (3)	(8) 6		(9) 8	1 (4)	
Not in workforce	168 (55)	17 (57)	57 (54)		74 (51)	17 (71)	
Has health insurance (% yes)				NA			0.40
Yes	299 (99)	29 (100)	106 (100)		140 (97)	24 (100)	
No	4 (1)	0 (0)	0 (0)		4 (3)	0 (0)	
Health insurance type				96.0			0.65
None	4 (1)	0 (0)	0 (0)		4 (3)	0 (0)	
Private	128 (42)	12 (41)	44 (41.5)		63 (44)	9 (37.5)	
Medicare	26 (9)	2 (7)	8 (7.5)		13 (9)	3 (12.5)	
Medicaid	42 (14)	5 (17)	13 (12)		18 (12.5)	6 (25)	
Medicare + Medicaid supplemental	26 (9)	3 (10)	12 (11)		10 (7)	1 (4)	
Medicare + private supplemental	77 (25)	7 (24)	29 (27)		36 (25)	5 (21)	
Clinical factors							
Type of diabetes				0.40			0.32
Type 1 diabetes	67 (22)	3 (10)	19 (18)		40 (28)	4 (17)	
Type 2 diabetes	240 (78)	27 (90)	87 (82)		104 (72)	20 (83)	
Number of chronic conditions, mean (SD)	4 (2)	5 (2)	4 (2)	99.0	4 (2)	4.3 (3)	0.57
Number of medications				0.71			0.59
1-2	32 (10)	4 (13)	(6) 01		14 (10)	3 (12.5)	
3-4	43 (14)	3 (10)	19 (18)		19 (13)	2 (8)	
2–6	79 (26)	6 (20)	23 (22)		45 (31)	5 (21)	
7	153 (50)	17 (57)	54 (51)		66 (46)	14 (58)	
Years living with diabetes, mean (SD)	17 (11)	14.5 (10.5)	16 (10)	0.87	16 (11)	22 (14)	0.19
HbA1c %, mean (SD)	8 (1.5)	8.1 (1.5)	8 (1.5)	0.95	8.1 (1.5)	7.8 (1.4)	0.32
Systolic blood pressure, mean (SD)	133.5 (18.5)	135 (18)	133 (20)	0.52	134 (18)	129 (18)	0.88
Diastolic blood pressure, mean (SD)	79 (12)	78 (12)	80 (11)	0.53	80 (12)	75 (14)	0.28
Psychosocial factors							
Depressive symptoms				0.23			0.08
None	151 (50)	16 (53.3)	48 (45)		78 (54.5)	9 (37.5)	

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Factors	Total sample, $n \binom{96}{n}$	Guided s	Guided self-navigation, n (%) 137 (45)	on,	In-pers	In-person assistance, $n \ (\%)$ $170 \ (55)$	е,
	(N=307)	Not engaged 30 (23)	Engaged 106 (77)	p-value	Not engaged 144 (86)	Engaged 24 (14)	p-value
Mild	88 (29)	7 (23.3)	34 (32)		36 (25)	11 (46)	
Moderate	34 (11)	1 (3.3)	13 (12)		19 (13)	1 (4)	
Severe	30 (10)	6 (20)	11 (10)		10 (7)	3 (12.5)	
Diabetes-related distress				0.28			0.36
No distress	88 (29)	11 (37)	23 (22)		46 (32)	5 (21)	
Moderate distress	48 (16)	5 (17)	21 (20)		20 (14)	2 (8)	
High distress	171 (56)	14 (47)	62 (58)		78 (54)	17 (71)	
Health literacy: level of confidence filling out medical forms by self							1.0
High	232 (76)	19 (63)	87 (82)	0.04	108 (75)	18 (75)	
Low	72 (24)	11 (37)	19 (18)		36 (25)	6 (25)	
Social support, mean (SD) (higher score=greater social support), score range=8-34	22 (6)	20 (6)	22 (6)	0.33	23 (6)	22 (7)	0.39
Number of baseline unmet social needs, mean (SD)	5 (4.5)	5 (5)	5 (4.2)	0.26	4.7 (4.2)	7.3 (5.0)	0.01

Note: Boldface indicates statistical significance (p<0.05).

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Table 2.

Motivators for Engaging With Offered Social Care Assistance

Survey findings	Interview themes and illustrative quotes	Integrated analyses
Reason for following up with in-person assistance (n=24) 75%-addressed 1 or more needs 50%-interested in learning more from resource 25%-accessing the resource was easy Reason for following up with guided selfnavigation (n=106) 66%-interested in learning more from resources 50%-addressed 1 or more needs 38%-accessing resources was easy 7%-reminders and cues prompted me 1%-other	Needed assistance "Because I needed some help. I had been unemployed for a while I was running into a lot of financial—I needed help with just basic necessities. (in-person assistance) "I've never been a person that was on this type of assistance. I've worked all my life, so to end up in this situation is very uncomfortable, but I had to let go of my pride and try to find the help that I needed." (in-person assistance) "Because I needed the help. I needed resources that I could turn—I had no information, and that's where I started." (guided self-navigation) Interested in learning more "I reached out to it pretty much with an open mind. 'Let's see. What do they offer? Is there anything that could be helpful?" (in-person assistance) "I did just kind of have a motivation just to see if it was something that would help me kind of take better care of myself. (guided self-navigation) "I wanted to know more about the program. I wanted to see what resources were available and if there was anything different than what I had already found over the years." (guided self-navigation)	The most prevalent reasons for engaging with offered assistance were similar for both in-person assistance and online self-navigation, including that participants needed help and felt that the offered assistance would address 1 or more needs and were interested in learning more about what would be offered. Additional motivators noted in the survey across both the in-person assistance and online self-navigation groups were that the offered assistance was easy to access.

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Table 3.

Barriers to Engaging With Offered Social Care Assistance

Survey findings	Interview themes and illustrative quotes	Integrated analyses
Reasons for not following up with in-person assistance Off 38%-did not need help 13%-did not think that the resource would be helpful 14%-did not think that the resource would be helpful 13%-did not think that the resource would be helpful 13%-did not think that the resource would be helpful 13%-did not think that the resource would be helpful 13%-did not apply to needs 12%-forgot 10%-did not apply to needs 10%-did not interested in information 11%-used before, met needs 13%-not interested in information 11%-used before, aid not meet needs 13%-did not trust the assistance 14%-did not trust the assistance 15%-did not trust the assistance 16%-did not trust the assistance 17%-forgot to log in 17%-did not receive a referral to resources offered by in- bad person assistance (n=16) 18%-did not receive a referral to resources offered by in- basistance (n=16) 18%-did not receive a referral to resources offered by guided 18%-did not receive a referral to resources offered by in- bad person assistance (n=16) 18%-did not needs a referral to resources outside of the program on the play to needs 18%-did not need help 18%-did not need no way to general 18%-did not think the resources would be helpful 18%-	Not interested in assistance Offered resources not relevant 'If just dini' strike me that I needed any of the services that were listed on there." (in-person assistance) "I think if my resources were to diminish. I would probably seek out some of their assistance, but I'm just in a good place right now I have a job. I have a house. I am doing losay through COVID and it's like, I just don't have a need right now. (in-person assistance) "A lot of it has to do with finances and trying to get help for your medications and things like that. That does not apply to me. I have erally good insurance, and I have enough money that I can get what I need So it doesn't apply to me." (guided self-navigation) Able to navigate resources on own 'I feel independent. I feel like most of the time, I can figure it out" (in-person assistance) 'I feel independent. I feel like most of the time, I can figure it out" (in-person assistance) 'I have to tell you, quite honestly, I didn't look at it very carefully. But I'm sor of the kind of person who does things myself, and I kind of see myself as, like. 'Oh, no. I don't need help. (in-person assistance) (I'm person assistance) Londonfortable asking for assistance, stigma "I'm so interested in government programs. Somebody says. 'We can save 80% by signing up for this [state] resource. 'No. I'd rather go another route I just food it want to participate in government programs whatever else direction my findings take me. I'm more inclined to do it that way than any free help" (in-person assistance) 'I't think it's just me and my background. It's, you know, we were taught by example from my grandparents, both sides actually, at a very young age thay you don't ask for assistance, the person assistance) 'I't don't know why I haven't called I feel like it's just more me not wanting to like, accept help from other people I just feel kind of the wanting to a burden on everybody with your disease." (guided self-navigation) 'I't strustrating, you want to be	The most prevalent reasons for not engaging with offered assistance were similar for both inperson assistance and online self-navigation, including participants not being interested in or needing assistance, feeling offered assistance was not relevant to needs or that they would not qualify, competing priorities/lack of time, forgetting and difficulty qualifying for assistance. Additional findings in the survey data for in-person support included already receiving support from other resources and the information about the resource was too general. Barriers more prominently expressed in the in-person assistance group were feeling uncomfortable asking for assistance, thinking based on prior negative experiences with social care assistance that the offered assistance would not be helpful, and not remembering getting information about the program. Barriers unique to the online self-navigation included lack of internet/computer access and challenges using the website.

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Integrated analyses me to just sit there and go through everything page by page and slowly it wasn't working for me." (guided self-navigation) '[Social care assistance that participant previously received] only helped somebody was connecting to you on just where your individual situation he so-called helpers. So, if they change their attitude, maybe I'll go. But to pay it back. Like, how am I going to pay it back? So, it's stressful the 'My experience is kind of like, "No. I'm right above the poverty level. I and then they hooked me up with [social care assistance program]. And assistance, and I got the assistance. But after-at the end of it, then I had poor creature. I'm very competent... We have to change the attitude of had no insurance. I was going to a free clinic, and they gave me insulin program] is, like, why don't you apply for Medicaid. And every time of themselves as poor people. And to have to go ask for help and then 'Yeah, I got a flier, but I kind of tucked it away and then never read it. "There was nothing [on the online assistance platform] that I don't already know. That's how I felt. And I don't have a lot of time, so for have [someone tell you]... one social worker... did tell me... 'You' re too proud. You have to be humble.' And I said, 'No. I can be as proud as I want.' So, I'm not going to deal with people who see me as some did... they'd find some reason not to cover me... And it's, like, you I'm not going to put myself through that again. (in-person assistance) support, I think those generally... made you feel more like a number, need the list. I need the service.' And I didn't qualify. I didn't qualify 'Well, why don't poor people ask for help?' Because they don't think 'A couple of times I've used the [social care assistance program]... I through hoops to qualify for anything because everything's stretched Tjust didn't feel like they could help me with anything that I'm not the same list. And finally, at one place, I said, 'I have the list. I don't I must say I don't remember what it said when I read it. I read it so 'I just didn't really look into it. I guess I didn't have any time at that "With assistance, there's certain guidelines and regulations, and you for anything because they were using last year's taxes... People say, may think you're following the guidelines and regulations, but then time, so I just really didn't utilize it at all." (guided self-navigation) "When I went around to various agencies in 2010, they all gave me It's probably even less than \$10,000 a year. So, I signed up for the that you were just being processed through. You... didn't feel like in the end you get hit with, bam, you didn't follow the guidelines. was substitute teaching, and you don't get paid very much at all. long ago I don't remember it specifically." (in-person assistance) me with what I qualify for, and, well, right now it's like jumping 'If we're talking kind of public health systems and public health was... So, that humanity aspect was kind of failing." (in-person Previous negative experiences with requested assistance Did not remember getting information about assistance Interview themes and illustrative quotes don't remember what was in it." (in-person assistance) Did not think offered assistance would be helpful know, I'm tired of asking. (in-person assistance) Did not think would qualify for assistance don't get anything." (in-person assistance) Felt already aware of offered resources already aware of." (in-person assistance) whole time." (in-person assistance) ' (guided self-navigation) 6%-other responsibilities took priority 6%—felt embarrassed or uncomfortable Survey findings

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Survey findings	Interview themes and illustrative quotes	Integrated analyses
	Forgot to follow-up with offered resources	
	down the row doing stuff. So, there wasn't a reason. I just didn't have it	
	written down." (in-person assistance)	
	"I just kind of put it off in the back of my mind and then didn't	
	self-navigation)	
	Attempted to engage with offered resources and told ineligible	
	"I was in need of some help paying my utility bills, and nothing	
	was there for that type of assistance. My insurance covered 80% [of	
	medical costs], but the other 20% was uncovered. I had to pay one or	
	the other, medication or utilities, medication or utilities Government	
	agencies and other agencies that was suggested, I didn't qualify for.	
	They said I made too much money. I don't understand what that means,	
	but okay, one dollar more than what the guidelines are-that's not too	
	much money, I think." (in-person assistance)	
	"I tried getting to [resource] to help us get extra food in the house,	
	because we've got a rent payment, car payment, insurance, renter's	
	insurance, other bills that were outstanding before my husband lost his	
	job that we're still paying we don't have a lot of money coming in by	
	the time we get done paying the bills. So, I was trying to get help for	
	the food by going through [the Department of Human Services] They	
	said we had too much income. They did not take into consideration what	
	income we have and what income goes out. And I don't think that's kind	
	of fair." (<i>guided self-navigation</i>)	

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Table 4.

Preferences for How to Receive Social Care Assistance (n=40)

Theme	Illustrative quote
Different messaging and framing around offered help	
Ensure that framing is respectful and non-intrusive	"The information I would need-I mean, again, it would be like, "We'll treat you with respect." And then do treat me with respect." (<i>in-person assistance</i>) "It is a slippery slope, because in trying to make sure that you're offering those kinds of supports, you don't want to be too intrusive as to say, 'Hey, we did the screen, and it looks like you need help in these five areas, and we're here to help.' That might be a little too pushy. So, it's probably a more subtle approach, but it's to say, you know, 'We have a program It provides these services. As I looked at-as we discussed, it seems like there are some areas that maybe you would like that kind of help, and I'm here to help you set that up if you'd like,' and to, you know, give the individual ownership it's that little warm handoff" (<i>in-person assistance</i>)
Provide clarity around services offered and who is eligible	"You've got just these bullet-point headlines, and you don't know what the resources are behind there what incentive is there for a person to follow-up on this You really do need somebody to look at this from maybe a marketing perspective or a psychological perspective that says. "What's going to get this person to take the next step with these resources?" (in-person assistance) "I feel like it sounded kind of vague. And, like, social services, that sounds great, but it's not that the average person would just be, like, 'Oh, yeah, I'm sad. I need a social service.' You know what I mean? I feel like maybe just clear understanding or just having knowing what you're calling and not just thinking, like, Oh, I'm calling this solution that's supposed to help people. Like, am I even warranted of needing help?"But knowing it's designed for people in situations like you would help." (in-person assistance) "It would have been helpful if the informational flier] called out those different scenarios maybe a little more clearly. You know, so individuals that may have lost their jobs, individuals that have been long term structurally unemployed, but also individuals that might be in a traditional middle-class income bracket and what [offered services] can do for them." (in-person assistance)
More actively promote assistance and provide reminders	"I think [offered social care assistance] needs to be promoted a lot more actively, because frankly it kind of went in one ear and out the other I didn't really understand the gravity and weight of what it was." (in-person assistance) "More communications or reminders from you to me Some interactive reminder so that you know that I have [the necessary information] and that I can act on it." (in-person assistance)
Tailored modalities based on preferences	
Prefer technology	"I would much rather use a technical technology to gain my information, than a letter in the mail. I think that's a fairly passé method of communication." (<i>in-person assistance</i>) "An app would probably be something easier, because I know some people do have anxiety about going in or even calling. Because that would at least–I know for me, you know, calling in and being, like, 'I need this thing. Can you direct me to the right people?' It kind of feels like—it's kind of—not everybody wants to do that. So having something where you have almost like a directory." (<i>in-person assistance</i>) "I definitely like to look at stuff online. It's easier to do when it's through my email or if there's a website I could check out. Then I can kind of do it on my own time rather than hav[ing] to set an appointment and then work around that appointment or something." (<i>in-person assistance</i>)
Prefer in-person intake	"Having [10] read the brochure versus having somebody kind of sit and do the detailed intake and say, 'Hey, can I make a referral for you for this?' It makes a big difference maybe treating it more as a concierge's kind of approach to it to say, 'We understand what your needs are. Can we start to plug you in with the resources?'" (in-person assistance) "If there was someone who knows all [of the available social care assistance programs] and says, 'Well, here's one that you could have a little bit more money and you could qualify,' or 'Here's one that doesn't have a financial qualification,' rather than me having to go to each thing and find out, to have someone who already knows [eligibility requirements] and then might say, 'Oh, no. Here's a good one. You should go there." (in-person assistance)
Prefer to receive information from clinician	"I feel like if my doctor had said more to me about [offered assistance], I probably would have [engaged]." (in-person assistance)