

**ORIGINAL RESEARCH**

# Intervention to Improve Psychosocial Care for People with Type 2 Diabetes

Deborah J. Cohen, PhD, Shannon M. Sweeney, MPH, PhD, Rachel Springer, MS, Bijal A. Balasubramanian, MBBS, PhD, LeAnn Michaels, Miguel Marino, PhD, Danielle Hessler, PhD, Andrea Baron, MPH, and Johanna Nesse, FNP

**Background:** This proof-of-concept study tested the feasibility and acceptability of INTEGRATE-D, an implementation support intervention for primary care clinics to improve the psychosocial care of patients with type 2 diabetes.

**Methods:** Cluster randomized controlled pragmatic trial, with a parallel, convergent mixed methods design. Two Intervention Clinics (ICs) were offered tailored training on American Diabetes Association (ADA)-recommended psychosocial care and facilitation to identify and support clinical change. Two Control Clinics (CCs) received no intervention. Primary outcomes: intervention acceptability, appropriateness and feasibility. Secondary outcomes: process-of-care metrics (eg, depression screening, diabetes management) and clinical outcomes measures (PHQ-9 and A1C). Qualitative data were collected to assess implementation and experience with the intervention.

**Results:** ICs were offered training and received 15-months of facilitation. To accommodate COVID-19-related safety restrictions, the intervention was changed to be delivered virtually (eg, remote facilitation and training sessions). Despite an adapted delivery and COVID-19 and staffing stressors, clinics exposed to INTEGRATE-D found it to be acceptable, well-aligned with clinics' needs, and feasible. Qualitative data suggest COVID-19 stressors tempered feasibility. The effect of INTEGRATE-D on process and clinical outcome measures were mixed. Several factors, including differences in ICs and CCs not addressed in randomization and delivery of a less intensive intervention due to the pandemic, may help explain these results.

**Conclusions:** Given the growing number of people with type 2 diabetes and the importance of psychosocial care for these patients, INTEGRATE-D warrants further pilot-testing with a larger sample of clinics and patients, and under conditions where in-person facilitation and expanded training is possible. (J Am Board Fam Med 2025;38:253–274.)

**Keywords:** Behavioral Counseling, Chronic Care Management, Diabetes, Disease Management, Integrated Health Care Systems, Outcome Measures, Patient Health Questionnaire, Primary Health Care, Psychosocial Care, Type 2 Diabetes Mellitus

## Introduction

Over 30 million people in the United States (US) live with type 2 diabetes,<sup>1</sup> the majority of whom receive care for this chronic condition in primary care settings.<sup>2,3</sup> Complex environmental, social, behavioral and emotional factors, collectively called

psychosocial factors, influence type 2 diabetes management. This is reflected in the American Diabetes Association (ADA) recommendations for psychosocial care for patients with diabetes (Figure 1). Helping patients manage their behavioral health needs and meet diabetes management goals reduces the risk of adverse outcomes.<sup>4–6</sup>

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From the Department of Family Medicine, Oregon Health & Science University, 3181 Sam Jackson Park Road, Portland, OR (DJC, SMS, RS, LM, MM, AN); Department of Epidemiology, University of Texas Health Science Center at Houston School of Public Health, Dallas, TX (BAB); Department of Family Medicine, University of California, San Francisco, CA (DH); OHSU Primary Care, Beaverton, OR (JN).

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**Corresponding author:** Deborah Cohen, PhD, Department of Family Medicine, Oregon Health & Science University, Portland, OR 97213 (E-mail: cohendj@ohsu.edu).

**Figure 1. American Diabetes Association (ADA) recommendations for psychosocial care for patients with diabetes.<sup>1</sup>**

- Psychosocial care should be integrated with collaborative, patient-centered medical care and provided to all people with diabetes; the goal is to optimize health outcomes and health-related quality of life.
- Providers should consider assessment of symptoms of diabetes distress, depression, anxiety, and disordered eating and of cognitive capacities using patient-appropriate standardized/validated tools at the initial visit, at periodic intervals, and when there is a change in disease, treatment, or life circumstance. Including caregivers and family members in this assessment is recommended.
- Consider monitoring patients' psychosocial factors and self-management behaviors impacting the person's self-management.
- Consider assessment of life circumstances that can affect physical and psychological health outcomes and their incorporation into intervention strategies.
- Addressing psychosocial problems upon identification is recommended. If intervention cannot be initiated during visit when problem is identified, a follow-up visit/referral to a qualified behavioral health care provider should be scheduled.

<sup>1</sup> Our study used the 2016 ADA guidelines. The ADA updated these in 2024, recommending annual screening for psychosocial need.

Psychosocial care for patients with type 2 diabetes involves identifying when depression, anxiety, diabetes distress (DD), cognitive impairment, social and economic need are affecting people, in general, and diabetes self-management, in particular, and developing the pathways to help patients access appropriate services and/or treatments.<sup>7–10</sup> Busy primary care clinics are often challenged with competing demands and priorities, may be unaware of the ADA recommendations, and struggle to adapt team-based workflows. Therefore, clinics can benefit from time, training and support from an outside expert to develop skills and adopt processes to better integrate patient care.<sup>11–14</sup>

We report the results of a mixed methods cluster randomized clinic level controlled pragmatic pilot study to test the acceptability, feasibility and appropriateness of a package of implementation strategies – called INTEGRATE-D – designed to assist primary care clinics (henceforth, clinics) with aligning care with ADA recommendations. We assessed whether intervention clinics (ICs) found INTEGRATE-D acceptable, appropriate and feasible.<sup>15</sup> We examined if clinics reported using more quality-improving strategies to improve type 2 diabetes care (prepost) compared with control clinics (CCs), met a higher number of process-of-care metrics for type 2 diabetes, depression and diabetes distress screening (prepost) as compared with CCs, and demonstrated a positive trend (improvement) in depression symptoms, measured by the Patient Health Questionnaire 9 (PHQ-9), and diabetes management, measured by Hemoglobin A1c (A1C) scores, (prepost) as compared with CCs. We

also sought to understand the context in which INTEGRATE-D was implemented, how it was implemented, and how it was experienced by clinical teams and patients. To our knowledge, INTEGRATE-D is one of the first studies to pilot-test an intervention to help primary care clinics better align care with the ADA recommendations.<sup>4</sup>

### The INTEGRATE-D Intervention

INTEGRATE-D was an implementation support intervention designed to help clinics align care with ADA recommendations.<sup>4</sup> The intervention was initially comprised of 15-months of tailored external support that included 3 evidence-informed implementation support strategies: (1) Audit and feedback, which involved assisting clinics in accessing actionable data reports to identify care gaps;<sup>16,17</sup> (2) Skill-building, which included expert training on ADA recommended care, DD, pragmatic screening and treatment strategies, and education in the medical aspects of type 2 diabetes targeted to BHCs<sup>18–21</sup>; and (3) Facilitation—monthly, tailored support to help clinics identify and implement changes to align care with ADA recommendations using Plan Do Study Act (PDSA) cycles and the Bodenheimer Building Blocks.<sup>22–24</sup>

We modified INTEGRATE-D to accommodate strains due to COVID-19 and to align with what we learned from baseline assessments. Table 1 shows clinics received monthly facilitation remotely rather than in person. IC1 received 15 once monthly facilitation meetings; IC2 received 11 due

**Table 1. Intervention Components, Description, Frequency, and Timeline**

Intervention Component	Who Provided Support	Description	Frequency and Timeline
Expert Training	Physician, BHC, and expert in implementing DD	<p>Education for clinical teams in ADA recommendations and self-management support materials on the following topics:</p> <ul style="list-style-type: none"> <li>• Psychosocial care, type 2 diabetes and DD training for all clinical roles delivered by a physician and DD expert</li> <li>• BHC training about the role of the BHC in caring for patient with type 2 diabetes delivered by a clinical psychologist with expertise in integrated behavioral health and primary care</li> </ul>	<p>IC1 received these remotely March and May 2021  IC2 was given a recording of these trainings. We do not know if these were reviewed by IC2.</p>
Facilitation	Practice Facilitator	<p>Customized remote once-a-month meetings with an experienced practice facilitator using Bodenheimer's Building Blocks framework and Plan Do Study Act (PDSA) cycles. Meeting topics were tailored to the clinic's experience and aligned with ADA recommendations and included:</p> <ul style="list-style-type: none"> <li>• Patient education materials for BH and self-management support</li> <li>• Implementation of systematic screenings for DD, depression, anxiety</li> <li>• Identifying changes in roles/responsibilities, new processes/workflows for screening and treatment</li> <li>• Identify cross-functional practice team, train team in QI</li> <li>• Proactive outreach to patients regarding DMII, self-management status, community and family needs</li> <li>• Pre-visit planning and huddling, scheduling BHC visits with warm handoffs</li> </ul>	<p>IC1: December 2020-February 2022  IC2: June 2021-May 2022</p>

*Abbreviations:* IC, Intervention clinic; BHC, Behavioral health clinician; DD, Diabetes distress; QI, Quality improvement; DMII, Type 2 Diabetes mellitus; ADA, American Diabetes Association.

to the delayed intervention start. Facilitation was tailored and included PDSA cycles that tested workflows to incorporate psychosocial screening; facilitators did not use audit and feedback data. We delivered 2 remote expert trainings to IC1. Trainings were recorded and shared with IC2.

## Methods

We used a cluster randomized controlled pragmatic trial, with a parallel, convergent mixed methods design to evaluate INTEGRATE-D. Clinics were enrolled in March 2020. The intervention period was from November 2020 to June 2022. Data collection was completed in December 2022. This study was approved by the Oregon Health & Science University Institutional Review Board (STUDY00020783) and was registered as a Clinical Trial (NCT04461405).

### Practice Recruitment

Oregon Rural Practice-based Research Network (ORPRN) practices, a statewide practice-based

research network, led recruitment. ORPRN sent an e-mail blast to clinics with information about the study and a brief response about level of interest. Outreach was followed with personalized e-mails and phone calls. Four clinics agreed to participate. These clinics all employed at least one behavioral health clinician (BHC) (or intended to use a BHC), varied on their location (rural and urban), size (number of clinicians), and ownership (health-system owned, independent federally qualified health center). Clinical team members were invited by e-mail to participate in interviews and surveys and received up to 2 reminder e-mails. Clinics contacted identified patients; the study team contacted patients willing to consider participation, explained the study, completed informed consent and scheduled an interview.

### Clinic Randomization

Consistent with aims of pilot studies, we sought to test and apply a randomization procedure that would be ideal in a larger sample size trial. Clinics

were pair-matched and randomized using a covariate-constrained randomization procedure<sup>25,26</sup> incorporating each clinic's number of clinicians, ownership type, clinic specialty (Family Medicine and/or Internal Medicine), and rurality using 2010 RUCA codes.<sup>27</sup> One clinic from each pair was randomized to receive the intervention and the other to the control group, which received no intervention. Following randomization, one clinic dropped out before the intervention start due to COVID-19-related organizational strain. We replaced this clinic with one that had similar characteristics to its matched control.

### **Sample**

Clinic staff participants included at least one clinic leader (eg, Medical Director, Practice Manager) and staff (eg, clinicians, medical assistants, BHCs) who worked with a facilitator. Before the intervention, we purposively selected and invited clinical staff from a range of roles to participate in interviews. Following the intervention, clinic staff who were exposed to the intervention were invited to complete a postintervention interview and survey.

Two samples of patients were randomly selected for chart abstraction: (1) patients with a diagnosis of type 2 diabetes and (2) patients with a diagnosis of type 2 diabetes and depression symptoms (PHQ-9 > 9)<sup>28</sup> or elevated diabetes distress (DD  $\geq 2$ ).<sup>29</sup> The first sample of patients assessed the impact of screening for depression and DD; the second assessed changes in care delivery among patients who screened positive for depression and DD. Chart audits did not contain patient health information and did not require patient consent.

We identified 5 patients across the 2 intervention clinics (ICs) that had a diagnosis of type 2 diabetes and either depression symptoms or elevated DD to participate in an interview. These patients were most likely to have been exposed INTEGRATE-D-related clinic changes.

### **Data Sources and Measures**

Table 2 shows the data sources and measures used to assess the feasibility and effect of INTEGRATE-D.

### **Data Collection**

We evaluated quantitative data 12 months before the first facilitation visit (preintervention) to 6 months after the last facilitation visit (postintervention). Preintervention interviews and survey data

were collected between November 2020 and July 2021. We delayed the intervention start for IC2 to allow them to prioritize their COVID response, adjusting data collection for IC2 and its matched control clinic 2 (CC2). Monthly check-in calls with ICs started in the month following the first intervention visit (December and June, respectively) and continued for the duration of the intervention. Postintervention survey and interviews were conducted between March and June 2022 for IC1 and between June and July 2022 for IC2.

### **Survey Data**

We conducted 2 surveys. One was completed by the office manager or clinical leader from each clinic (n = 4). This survey collected clinic demographic data and 14 items from the Change Process Capability Questionnaire (CPCQ), which was modified to assess a medical group's use of quality improvement strategies aligned with improvement in type 2 diabetes care. Demographic data were collected once, preintervention. The CPCQ was completed pre and postintervention (see Appendix 2).<sup>30</sup> ICs and CCs completed this survey with a 100% response rate. The second survey assessed the feasibility, acceptability and appropriateness of INTEGRATE-D using 3 psychometrically assessed measures developed by Weiner et al.<sup>15</sup> This survey was distributed to clinical team members exposed to the intervention (n = 17) after the intervention ended, with an 82% response rate. Surveys were conducted using REDCap.

### **EHR Data**

EHR data were abstracted through a combination of manual and automated reporting, both of which followed a protocol.<sup>31,32</sup> Research staff assisted clinic staff with creating a list of patients with type 2 diabetes seen in the clinic at least once in the 15 months before the intervention start and once during the intervention. Using a random number table, we selected 50 patients from this list. The same procedure was used to generate a list of 30 patients who had depression symptoms (PHQ-9 > 9) or elevated DD, using the 2-question or long screener.<sup>33</sup> Of those patients, chart auditors further assessed behavioral health outcome measures. The A1C measure was assessed for these 2 groups. Staff conducting chart audits were trained to determine which individuals to include in numerators and denominators, which clinical data to include and appropriate parameters to record.

**Table 2. Study Measures, Variables and Data Sources**

Variable/Definition	Data Source	Data Collection/Analysis
<b>Assess the Feasibility, Appropriateness and Acceptability of INTEGRATE-D</b>		
Acceptability – extent to which intervention is agreeable, palatable, satisfactory	Assessed via survey <sup>15</sup> and semi-structured interview. Survey had four questions per variable. See Online Appendix for items.	Collected from clinic members exposed to the intervention ICs at the end of the intervention.
Appropriateness – extent to which intervention fits and is compatible for addressing issue or problem		Descriptive analysis for ICs only.
Feasibility – extent to which an intervention can be successfully used or carried out		Survey scores, which ranged from 1 (strongly disagree) to 5 (strongly agree) for each clinic member response were averaged at the clinic-level.
<b>Compare changes in use of quality-improving strategies</b>		
Clinics' ability to implement quality improving strategies related integrated type 2 diabetes care	Assessed via survey using 14 items from the Change Process Capability Questionnaire (CPCQ). <sup>30</sup> See Appendix 2 for items.	One person at IC and CCs completed the survey at the same time, pre- and post-intervention. Survey scores, which ranged from –2 (strongly disagree) to +2 (strongly agree), were summed for each clinic with possible sums ranging from –28 to +28. Average aggregate scores were compared between IC versus CCs
<b>Compare changes in process of care screening rates</b>		
A1C screening – binary variable indicating whether the patient was screened at least once during the period	Electronic Health Record (EHR) data abstracted through manual and automated methods	Operationalized at the patient level for pre- and post-intervention periods, means aggregated at the clinic-level for IC and CC. <u>Pre-intervention</u> defined as the time during the 12 months before the intervention; <u>post-intervention</u> defined as any time during the 12 months following the start of the intervention.
Cholesterol screening - binary variable indicating whether the patient was screened at least once during the period		
Nephropathy screening - binary variable indicating whether the patient was screened at least once during the period		
Psychosocial screenings – binary variables indicating whether the patient was screened at least once during the period for depression (PHQ-2 and/or PHQ-9) and/or for diabetes distress (DD) <sup>1</sup>		
<b>Compare changes in clinical outcomes (PHQ-9 scores and A1C levels)</b>		
Behavioral health – change in symptoms (PHQ-9) for patients with depression symptoms (PHQ-9 > 9); data abstracted through manual and automated methods	Operationalized at the patient level for pre- and post-intervention periods, means aggregated for intervention and control clinics; <u>pre-intervention</u> defined as score closest to the intervention start date; <u>post-intervention</u> defined as score closest to the intervention end date.	
Diabetes Management – change in A1C for patients diagnosed with type 2 diabetes		
<b>Confounding Variables - Patient socio-demographics, comorbidity, insurance, and utilization</b>		
Age, gender, language preference, race/ethnicity, income/federal poverty level, insurance type, physical, mental/behavioral health comorbidity, healthcare utilization	EHR data abstracted through manual and automated methods	Operationalized at the patient level

<sup>1</sup>Diabetes distress (DD) screening was implemented by IC; clinics did not screen for this pre-intervention.

Abbreviations: IC, intervention clinics; CC, control clinics.

*Interviews*

Experienced qualitative researchers conducted semi-structured interviews (see Appendix 3) and monthly

checks with clinics. Preintervention clinic member interviews (n = 19) explored experiences with delivering psychosocial care to patients with type 2

diabetes. Postintervention interviews (n = 5) and one e-mail interaction complemented postintervention surveys. Interviews were conducted with those exposed to the intervention and explored their experience with the intervention and the changes they implemented. Monthly phone check-ins were conducted with one person from each IC to monitor progress; notes were prepared from these conversations. Patients from the 2 ICs (n = 5) were interviewed to explore their experiences of integrated psychosocial and diabetes care and how it may have changed.

### Practice Facilitator Data

The facilitator completed notes following each session documenting what they worked on with the clinic, resources shared, progress, planned quality improvement cycles, successes and challenges. Monthly study team check-ins with the facilitator complemented these notes and allowed for monitoring progress and fidelity. Notes were developed to document these conversations.

Clinic member and patient interviews generally lasted 30 to 45 minutes, were conducted via telephone or web platform, audio-recorded with permission, professionally transcribed, and reviewed for accuracy. Qualitative data were deidentified and organized into Atlas.ti7 for management and analysis.

### Analysis

Feasibility, acceptability and appropriateness of INTEGRATE-D were assessed postintervention among ICs. For the other quantitative variables, we compared differences in values pre and postintervention among ICs and CCs. For the CPCQ as well as for feasibility, acceptability and appropriateness, we performed clinic-level analyses. For process-of-care measures, we performed patient-level analyses, with results summarized by clinic. When testing the

effect of INTEGRATE-D on these outcomes, the independent variables were exposure to the intervention (whether the patient was associated with a clinic randomized to the intervention) and time period where baseline represented the closest measure available for the patient before the start of the intervention and follow-up represented the closest measure after the end of intervention.

To assess the effect of the intervention on A1C and PHQ-9 outcomes, we compared ICs and CCs performing a patient-level analysis using linear mixed effects models. We modeled the outcome of interest as a function of the indicator for period (post vs pre), indicator for intervention arm (IC vs CC), and the interaction between period and intervention, using random effects to account for repeated measures within the same patient over time. We adjusted for potential confounding using a range of patient-level characteristics (see Table 2). Statistical tests were 2-sided ( $\alpha = 0.05$ ) and performed in R (version 4.2.0).

Qualitative researchers with expertise in primary care, integrated care and implementation science conducted analyses. We used a group process to analyze qualitative data, tagging text to assign codes that were aligned with emerging patterns/findings. When codes were clearly defined (ie, we had a codebook) and used consistently among the team, we transitioned to individual data analysis. The team continued to meet to review work and discuss emerging findings. Tagged data were analyzed a second time to examine the similarities and differences across the 2 ICs. Qualitative findings were summarized and connected with quantitative findings to explain the study results.

### Results

Table 3 shows the clinic characteristics. Clinics employed at least one BHC. IC and CC arms were well-balanced on ownership, rurality and number of clinicians.

**Table 3. Clinic Characteristics**

	Intervention		Control	
	1	2	1	2
Practice number	1	2	1	2
Ownership	FQHC	Hospital	FQHC	Hospital
Geographic location	Rural	Urban	Rural	Urban
Number of clinicians (MD, DO, NP, PA)	15	7	10	12
Number of licensed BHCs	7	1	4	1

*Abbreviations:* MD, Medical doctor; DO, Doctor of osteopathic medicine; NP, Nurse practitioner; PA, Physician assistant; BHC, Behavioral health clinicians.

**Acceptability, Appropriateness and Feasibility of INTEGRATE-D**

INTEGRATE-D, as modified, was deemed to be acceptable (Mean = 3.60, S.D. = 0.50; Range=[3, 4.25]), appropriate (Mean = 3.79, S.D. = 0.45, Range=[3, 4.25]), and feasible (Mean = 3.50, S.D. = 0.43; Range=[3, 4]), with participants at IC1 having slightly more favorable responses (most participants chose “agree” or “strongly agree”) as compared with IC2, whose responses tended toward “agree” (corresponding to a score of 4) and “neutral” (corresponding to a score of 3), with potential responses ranging from strongly disagree (corresponding to a score of 1) to strongly agree (corresponding to a score of 5). Data not shown.

Qualitative findings were aligned with survey results. ICs described the work with the facilitator as acceptable and valuable:

*It seemed really useful to get a discussion going between members of the Quality team, Medical team, and Behavioral Health team. [The facilitator] would ask questions that would get us thinking about how we did things, what types of things we weren't doing that needed to be done, etc., and having all three departments represented was crucial to planning and problem solving.* – Quality Analyst Email, IC 1

Clinic members reported that INTEGRATE-D improved patient care: *“I felt like [INTEGRATE-D] improved my care of my diabetic patients,”* (Physician Assistant, Interview, IC1) because the intervention provided a more holistic approach to caring for patients with type 2 diabetes. Clinical staff that used the DD tool generally found that it fostered meaningful conversations with patients about managing their diabetes. The intervention also met clinical teams’ needs: *“We now have a workflow to screen patients, and we also have a workflow to*

*support those patients who have scored higher on the screenings. Yeah, I think that is a win because we did not really have anything like that at all before.”* (Pharmacist, Interview, IC2.) The facilitator kept clinics focused on making changes that were aligned with their needs and navigated external challenges.

Participants described the intervention as *mostly* feasible. Limited workforce capacity and turnover – challenges exacerbated by the pandemic – affected experience. As the Care Coordinator in IC2 reported, due to the pandemic, the clinic had improvements that *“...were shelved, that could help our patients; we just did not have the resources to do more.”* ICs kept the changes small and doable.

*With our behavioral health department in a bit of disarray throughout the course of the project, we weren't in a great position to deep dive into new material... I think more implementation probably took place than I realize or that I can see from my perspective, but due to staffing constraints, etc., I think [what we did] was also more limited than what we'd initially hoped for.* – Quality Analyst, Email, IC1

Facilitators focused on implementing the DD screening because this was worthwhile and achievable work that primary care clinicians could do without BHC input, since clinics experienced turnover in this role (Facilitator Notes).

**Changes in QI Strategies**

CPCQ scores increased for ICs and CCs, as shown in Table 4. The CPCQ questions that showed most positive change (average of at least 1 point increase, on a -2 to 2 scale) align with the training and facilitation ICs received, and the types of changes they reported making in interviews.

**Table 4. Change in CPCQ Measure**

Practice	Baseline	Follow-up	Change	CPCQ Items That Showed Most Change in ICs
Intervention Clinic 1	1	12	+11	<ul style="list-style-type: none"> <li>• Providing information and skills-training</li> <li>• Using rapid cycling, piloting, pre-testing or other vehicles for reducing the risk of negative results from introducing organization-wide change in care</li> <li>• Deliberately designing care improvements to make the care process more beneficial to the patient</li> <li>• Customizing the implementation of diabetes disease prevention care changes to the practice</li> </ul>
Intervention Clinic 2	14	22*	+8	
<i>Total average intervention</i>	<b>7.5</b>	<b>17</b>	<b>+9.5</b>	
Control Clinic 1	17	21	+4	
Control Clinic 2	16	21	+5	
<i>Total average control</i>	<b>16.5</b>	<b>21</b>	<b>+4.5</b>	

\*Left missing (computed as 0 = neutral) on two questions that were previously completed as +2. Were these +2 responses carried forward, the follow-up score for this clinic would be 26.

Abbreviations: CPCQ, change process capability questionnaire; IC, intervention clinics.

**Table 5. Change in Process of Care Measures**

	Intervention				Control			
	Clinic 1		Clinic 2		Clinic 1		Clinic 2	
	Pre-	Post-	Pre-	Post-	Pre-	Post-	Pre-	Post-
<b>Group 1*: Patients with type II diabetes who did not screen positive for depression or diabetes distress, N (%)</b>								
Screening PHQ-2 or 9	30 (60%)	15 (30%)	12 (24%)	21 (42%)	32 (62%)	29 (58%)	29 (58%)	36 (72%)
Screening diabetes distress (DD)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Up-to-date A1C screening	41 (82%)	38 (76%)	44 (88%)	47 (95%)	37 (74%)	30 (60%)	46 (92%)	47 (94%)
Up-to-date nephrology screening	44 (88%)	38 (76%)	44 (88%)	39 (77%)	30 (60%)	23 (46%)	47 (94%)	47 (94%)
Up-to-date cholesterol screening	31 (62%)	27 (54%)	36 (72%)	36 (72%)	34 (68%)	31 (62%)	36 (72%)	28 (58%)
<b>Group 2**: Patients with type II diabetes who screened positive for depression or diabetes distress, N (%)</b>								
Screening PHQ-2 or 9	2 (7%)	3 (10%)	0 (0%)	0 (0%)	12 (40%)	10 (33%)	8 (27%)	13 (43%)
Screening diabetes distress (DD)	0 (0%)	11 (37%)	0 (0%)	1 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Up-to-date A1C screening	26 (87%)	26 (87%)	4 (100%)	4 (100%)	25 (83%)	25 (83%)	28 (93%)	25 (83%)
Up-to-date nephrology screening	25 (83%)	29 (97%)	4 (100%)	3 (75%)	15 (50%)	23 (78%)	24 (80%)	26 (87%)
Up-to-date cholesterol screening	18 (60%)	20 (67%)	2 (50%)	3 (75%)	19 (63%)	27 (90%)	21 (70%)	21 (70%)

\*Sample of 50 patients per clinic.

\*\*Sample of 30 patients per clinic, with the exception of Clinic 2, where only 4 patients screened positive for depression or diabetes distress.

**Changes in Clinical Process of Care Measures**

Other than the outcome of screening for DD, which we observed increased among ICs in the postperiod among patients who screened positive for depression symptoms, we found no differences between ICs and CCs on process of care measures. The results for both groups were mixed (Table 5). For patients with type 2 diabetes, IC2 improved its screening for depression and DD and IC1 had a drop. This

patterned persisted with the other process of care measures, with IC2 either maintaining or improving its process measures, and IC1 seeing a small drop. A similar pattern emerged in CCs.

Among patients who screened positive for depression symptoms or elevated DD, IC1 improved its rate of rescreening patients, and IC2 did not have adequate patients in the chart audit sample for assessment. Interviewed patients did recall experiencing a range of

**Table 6. Adjusted\* Change in PHQ-9 and A1C, Means and 95% Confidence Intervals (CIs)**

	Intervention		Control		P value**
	Pre-	Post-	Pre-	Post-	
<b>Group 1: Patients with type II diabetes who did not screen positive for depression or diabetes distress, N (%)****</b>					
A1C (mean, 95% CI)	7.69 (7.33, 8.05)	7.67 (7.29, 8.05)	6.87 (6.48, 7.25)	6.77 (6.37, 7.18)	0.747
<b>Group 2: Patients with type II diabetes who screened positive for depression or diabetes distress***</b>					
A1C (mean, 95% CI)	7.37 (6.78, 7.95)	7.44 (6.82, 8.07)	7.25 (6.82, 7.68)	7.38 (6.92, 7.83)	0.905
PHQ-9 (mean, 95% CI)	13.91 (9.38, 18.44)	15.77 (8.64, 22.89)	10.66 (8.64, 12.67)	12.61 (10.54, 14.68)	0.980

The Patient Health Questionnaire-9 (PHQ-9) is a depression screening tool that uses a scoring range of 0–27 to indicate the Severity of depression: 0–4: None to minimal depression, and the patient may not need treatment; 5–9: Mild depression; 10–14: Moderate depression; 15–19: Moderately severe depression; 20–27: Severe depression.

\*Covariate adjustment incorporates patient socio-demographic characteristics as shown in Table 2.

\*\*Tests the difference in pre- versus post- change between intervention and control group.

\*\*\*Group 1 had a sample of 50 patients per clinic; group 2 had a sample of 30 patients per clinic, with the exception of Clinic 2, where only 4 patients screened positive for depression or diabetes distress.

screenings by the clinical team, but they could not describe these screenings. Patients did not report having had discussions with their clinicians about DD.

CCs show both improvement (CC2) and worsening (CC1) of rescreening rates, but both CCs identified and rescreened patients with previously reported depression symptoms more than was observed at ICs. Among this group of patients, up-to-date screening rates for cholesterol and nephropathy was slightly higher in ICs.

### ***Change in Clinical Outcomes (PHQ-9 Scores and A1C Levels)***

Among patients with type 2 diabetes and those who screened positive for depression symptoms, we did not observe meaningful differences between ICs and CCs in change in A1C or depression symptoms (PHQ-9) after adjusting for patient-level demographic characteristics (Table 6).

### **Discussion**

INTEGRATE-D was an implementation support intervention designed to help clinics improve psychosocial care for patients with type 2 diabetes. INTEGRATE-D was an acceptable, feasible and fitting intervention. ICs reported implementing more type 2 diabetes quality improvement strategies after the intervention than before as compared with CCs, as measured by the CPCQ; ICs made modest to large improvements, on average in the CPCQ (prepost) and CCs made small to medium changes in this measure.<sup>34</sup> Regarding improvements in clinic process of care and outcome measures (diabetes, depression and DD management), the results of this pilot were mixed.

We moved forward with INTEGRATE-D at the start of the pandemic because clinics wanted to participate. Despite this perseverance, the pandemic affected our study in numerous ways. First, we never visited clinics to understand their culture and how they delivered care, as planned. Remote facilitation did not allow for observation of clinic operations, including the informal ways teams used data and the ways that primary care and BHCs worked together. We speculate that this hampered motivation and engagement and disadvantaged the facilitator when it came to leveraging audit and feedback data to help clinics identify worthwhile operational improvements. Second, workforce challenges affected clinics' improvement

efforts. Particularly challenging was the loss of BHCs in the ICs. The facilitator worked with clinical teams to focus on improvements that did not involve BHCs, which was not ideal. Third, the pandemic likely reduced the number of PDSA cycles that ICs conducted and minimized spread clinic wide. Fewer clinic members were working in the clinic at the same time, and their focus was on the pandemic and meeting patients' basic care needs. As a result of these factors, exposure to INTEGRATE-D was less intense than intended, and may explain the muted and mixed results that we observed.

Despite these challenges, we gained several valuable lessons from this work. BHCs in primary care clinics may know little about type 2 diabetes or their role in caring for this population. This was the case in both ICs. We identified experts to provide training to address this knowledge/experience gap. Despite being unable to interview BHCs due to turnover, we believe that more training was needed. Since the time of our study, the ADA has developed extensive training materials,<sup>35</sup> which should be considered for future studies and quality improvement efforts.

This study also has several limitations. First, while it was not ideal to have one IC discontinue participation after randomization, we were able to replace this IC in a manner that aligned with our matching procedure. We modified our timing to ensure that matched IC and CCs received the intervention and were assessed at the same time. Second, differences in when ICs received the intervention (early or later pandemic) may have shaped their experience. Third, while ICs and CCs matched well on structural characteristics, baseline differences in A1C levels suggest differences in patient populations and unmeasured clinic characteristics. One clinic characteristic we did not assess before randomization was experience with integrating medical and psychosocial care. For example, CC1 employed 4 BHCs, and there was nearly a 2:1 ratio of primary care clinicians to BHCs. This ratio allows BHCs to work closely with primary care (eg, do warm hand-offs), and is suggestive of a more advanced clinical model<sup>36</sup> then was present its matched IC. Future studies need a more granular understanding of clinics' experience with integration prerandomization. Fourth, INTEGRATE-D was a clinic-level intervention, and we cannot discern if patients were not exposed to the

intervention of were unaware of clinic level changes. Fifth, we conducted fewer interviews with clinical team members postintervention than anticipated; this was a result of the smaller reach of the intervention, burnout and turnover.

## Conclusion

Our rigorous mixed-methods evaluation shed light on unique challenges experienced by clinics in addressing diabetes medical care, depression, and DD. Since this study was conducted, the ADA has updated its guidelines to be more specific about the need for annual screening.<sup>37</sup> Given the growing number of people with type 2 diabetes, the importance of psychosocial care for these patients, and the continued gap between the guidelines and actual diabetes care delivery, programs like INTEGRATE-D continue to be needed and must be further explored, under nonpandemic conditions.

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To see this article online, please go to: <http://jabfm.org/content/38/2/253.full>.

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## Appendices

### Appendix 1: Acceptability, Appropriateness, and Feasibility of INTEGRATE-D

Measure	Definition	Questions
Acceptability	The perception that a given treatment, service, practice, or innovation is agreeable, palatable, or satisfactory	<ol style="list-style-type: none"> <li>1. INTEGRATE-D meets my approval</li> <li>2. INTEGRATE-D is appealing to me</li> <li>3. I like INTEGRATE-D</li> <li>4. I welcome INTEGRATE-D</li> </ol>
Appropriateness	The perceived fit, relevance, or compatibility of the innovation or evidence-based practice for a given practice setting, provider, or consumer; and/or perceived fit of the innovation to address a particular issue or problem	<ol style="list-style-type: none"> <li>1. INTEGRATE-D seems fitting</li> <li>2. INTEGRATE-D seems suitable</li> <li>3. INTEGRATE-D seems applicable</li> <li>4. INTEGRATE-D seems like a good match</li> </ol>
Feasibility	The extent to which a new treatment, or an innovation, can be successfully used or carried out within a given agency or setting	<ol style="list-style-type: none"> <li>1. INTEGRATE-D seems implementable</li> <li>2. INTEGRATE-D seems possible</li> <li>3. INTEGRATE-D seems doable</li> <li>4. INTEGRATE-D seems easy to use<sup>15</sup></li> </ol>

## Appendix 2: Change Process Capability Questionnaire (CPCQ) Items

Indicate the extent* to which you agree or disagree that your practice has used the following strategies to improve Type 2 Diabetes mellitus (DMII) care:
1. Providing information and skills training
2. Using opinion leaders, role modeling, or other vehicles to encourage support for changes
3. Changing or creating systems in the practice that make it easier to provide high quality care
4. Removal or reduction of barriers to better quality of care
5. Using teams focused on accomplishing the change process for improved care
6. Delegating to non-clinician staff the responsibility to carry out aspects of care that are normally the responsibility of physicians
7. Providing to those who are charged with implementing improved care the power to authorize and make the desired changes
8. Periodic measurement of care quality for assessing compliance with any new approach to care
9. Reporting measurements of practice performance on diabetes disease prevention measures for comparison with their peers
10. Setting goals and benchmarking rates of performance quality on DMII measures at least yearly
11. Customizing the implementation of diabetes disease prevention care changes to the practice
12. Using rapid cycling, piloting, pre-testing, or other vehicles for reducing the risk of negative results from introducing operation-wide changes in care
13. Deliberately designing care improvements so as to make clinician participation less work than before
14. Deliberately designing care improvements to make the care process more beneficial to the patient

\*Response options: Strongly Disagree, Somewhat Disagree, Neither Agree nor Disagree, Somewhat Agree, Strongly Agree

## Appendix 3: Practice Member Interview Guide Pre-Intervention

*Please Note: Ask for permission to tape record this interview.*

*Thank you so much for joining us today. We are excited to work with you on the INTEGRATE-D pilot project. We would like to take a moment to have everyone on the call introduce themselves.*

*Today, we would like to get to know you and learn more your practice. Ordinarily, this is the call where we work with you to plan an in-person site visit. Unfortunately, we will not be able to visit with your practice in person because of the coronavirus. Instead, we are hoping to talk, and maybe brainstorm with you a bit, about how we can learn about your practice by interviewing people, which will be done virtually, and perhaps by collecting documents (or in other ways) that help us understand how your practice delivers care.*

*Before we begin, we want clarify that we are attempting to learn about what your practices is like under “normal” operations, so we ask that you think back to a period prior to the pandemic (i.e., think back six months or so ago). We will conclude our conversation by asking about the adjustments made as a result of COVID-19.*

### 1. Please tell us about how your practice is organized.

- What staff positions does this practice have?
  - Clinicians
  - Medical assistants
  - Nurses
  - Care manager or care coordinator
  - Behavioral health clinician/team
  - Panel manager
  - Front desk staff
  - Office Manager
  - Anyone else?
- Who are the people that are ‘in charge?’

### 2. Who’s on a team? How many teams?

- Does the office operate in teams or pods?
  - Do some of the teams/pods care for more patients with Type II Diabetes Mellitus (DMII) than others?
  - To your knowledge, are there any providers with more diabetic patients on their panel?

### 3. Can you describe for me the physical layout of your practice?

- Number of exam rooms?
- Who has offices and who is in what office (how is this organized)?
  - Where are the clinicians’ offices or computer station located?
  - Where is the Medical assistant station?
  - If the practice has a Behavioral Health Clinician, where does this person work? Where is there office in relation to the clinicians?
- Are there shared or communal spaces in the practice? If so, where are they located?
- We would like to get a sense of how the offices and shared spaces are arranged. Do you have a copy of the floor plan or a fire evacuation map that you can share?

*I’d like to talk about what a patient can expect before their visit with the doctor or another provider.*

**4. Can you walk me through what a patient can expect before the visit with a clinician or another provider?**

- Is there any preparation that happens in the days before the visit (e.g., phone call outreach, paperwork collection)? If so, can you describe how this happens?
- What happens next? (e.g., rooming, visit)

**5. How are behavioral health needs identified?**

- Who is involved in screening patients?

**6. To better understand how the practice is managed do you have office protocols or workflows that you can share with us?**

**7. To what extent are these workflows done consistently across clinical staff?**

- Among clinicians?
- Among Medical assistants?

*Now I'd like to understand a bit more about how the clinic manages its population of DMII patients specifically.*

**8. How does the practice identify and monitor your patients with DMII (e.g., Registry)?**

- Who else is responsible for this work (e.g., Panel manager?)
- What indicators or measures do you use? (e.g., A1C)
- Do you receive incentives for patients' outcomes? (Pay-for-performance)

**9. How regularly do patients with DMII visit the practice?**

- Controlled?
- Uncontrolled
- What do you do for patients with Type II diabetes who do not come in regularly?
- Newly diagnosed patients

**10. Which staff members are most closely involved in DMII care?**

- What roles do these positions play in care delivery for patients with DMII?

*Now, I'd like to change gears a bit and talk with you about quality improvement.*

**11. What does your practice do to monitor and improve its quality?**

- What types of quality improvements has your practice worked on in the past?
- How did you approach that change?
- What happened?
- How do you decide what to work on?
- After you've decided what to work on, what happens next?
- How do you know if a change you've made is working?

**12. Thank you so much for your description of how staff are involved in patient care. We would like to interview 5-10 individuals to broaden our understanding of the work being done in the practice, especially as it relates to DMII patients. Given the range of [summary of what interviewee mentioned above (e.g., roles involved in this care, workflow variation) who would you recommend that we speak with to capture a wide range of experiences?**

- Which clinicians should we interview?
- Which medical assistant do you recommend we interview?
- Other nurses?
- Care manager or care coordinator, whomever is involved with panel management
- Behavioral health clinician/team
- Panel manager
- Front desk staff
- Office Manager
- Anyone else?

**13. Do you have someone on your team who leads your quality improvement efforts? Who?**

- What role does the quality improvement lead play in diabetes care?

**14. What scheduling considerations should we keep in mind as we move forward with interview planning?**

- When does your practice open and close?
- Do patient care teams meet or huddle either before or during patient care sessions?
- What times are huddles?
- When do you have all staff meetings?
- Are there specific days that you focus on DMII patient care?
- Are there specific team members who only work certain day?

**15. How do you recommend we start approaching people in the practice about participating in an interview?**

**16. I'm sure COVID-19 has impacted your clinic operations. What changes should we be sensitive to as we move forward with interviews?**

- What are you doing to continue delivering care during COVID? (e.g., changed hours, started or increased telehealth visits, reduced or eliminated in-person visits)
- What care are you not able to provide as a result of COVID-19? Are there certain groups of patients that are primarily impacted? How are you providing care to these groups

**17. What questions do you have for us? [At this point we can describe the data collection process for the study.]**

## Appendix 4: Practice Member Interview Guide Post-Intervention

### Introduction:

*Introduce yourself.*

Thank you for participating in this interview. We are speaking with you today because of your involvement in an intervention known as INTEGRATE-D that worked to integrate medical and psychosocial care for patients with Type II Diabetes Mellitus (DMII) in your practice. We'd like to hear about your experiences with the intervention and any changes that were made to diabetic care in your clinic.

*Did you have a chance to review the information sheet? Do you have questions?*

- Describe how the interview audio transcripts are de-identified and handled:
  - *Audio recordings will be professionally transcribed, and any information in the interview that could be used to identify you will be stripped from the transcripts. These transcripts will only be seen by and shared with the research team.*
  - Start recording: *Do I have your permission to record this interview?*

### Questions:

If have not spoken to practice member before. If have spoken to practice member before skip to #2.

#### 1. First, please tell me about yourself.

- What is your background?
- How long have you been at the practice?

#### 2. If have NOT spoken to practice member before:

##### **Tell us about your experience working on INTEGRATE-D?**

- i. What did you work on?
- ii. How were the meetings?
- iii. What did you find most useful?

If have spoken to practice member before:

**We've spoken about your role and the practice in the past and are hoping you could tell us about your experience working on INTEGRATE-D?**

- i. What did you work on?
- ii. How were the meetings?
- iii. What did you find most useful?

#### 3. How did you work with your facilitator?

- How did you decide what to work on?
- How did you use the resources your facilitator provided?

#### 4. What changes did your practice implement around diabetic care as part of INTEGRATE-D?

- Around depression screening?
- Behavioral health warm hand off?
- Screenings?
- Other things from IT?

**5. How did you use data in the quality improvement process?**

- What data did you use? How often?

**6. What strengths did your practice have in doing this work?**

**7. What challenges or barriers did your practice have with this work?**

**8. What have you continued to work on from INTEGRATE-D?**

- Any other work to improve care for DMII patients since the end of the intervention?

**9. Can you walk me through what a patient with DMII can expect before the visit with the doctor or another provider?**

- Is there any preparation that happens in the days before the visit (e.g., outreach phone call, paperwork collection)? If so, can you describe how this happens?
- Can you tell me what happens during check-in at the front desk for patients with DMII?
  - Which care team members are involved?
  - What are their responsibilities?
- Is the patient asked to complete any paper work while waiting? If yes, can you tell me what DMII patients are asked to complete?
  - Once completed, what happens to this information?
  - How frequently does this data collection process happen?

**10. What happens after that, when the patient with DMII is roomed?**

- Height, weight, blood pressure, pulse checked?
- Check their feet?
- What else do you ask patients about?
  - Last eye exam?
  - Check medication list? See if they need refills?
  - Ask about home blood sugar readings?
  - What else do you screen patients for?
  - Alcohol use
  - Tobacco use
  - Exercise
  - Diet
- Foot exams
- Blood tests
- Assessment of blood sugar log
- Check on last eye exam
- Medication reconciliation
- Immunizations
- Screening
  - To what extent are screenings consistently performed by staff?
  - Standard workflow
- Order lab tests
- Training and education

**11. What happens after the visit with the provider?**

- Scheduling?
- Care management?
  - How are referrals made?
  - Warm handoff with Behavioral Health Clinician or pharmacist

*Now I'd like to discuss how this process looks for patients with DMII who might have depression or anxiety.*

**12. First, is there anything special that happens during check in for patients who might have depression or anxiety?**

**13. Is there anything special that the Medical Assistant does during rooming for people who might have depression or anxiety?**

- How are behavioral health needs identified?
  - What type of screening is done?
    - How regularly?
    - [For Medical Assistants] If you receive a positive screen what do you do next?
- How is information entered into the Electronic Health Record?
- [For Medical Assistants]: After you finish rooming the patient what do you do?
  - Referral (to Behavioral Health Clinician?)
- [For Behavioral Health Clinician]: How are patients normally referred to you?
  - Warm handoff?

Thank you for walking us through the process that patients can expect when visiting with providers. I'd now like to ask you about how your practice manages patients with DMII.

**14. [For doctor/Behavioral Health Clinician] How does your practice normally work with patients who are newly diagnosed with DMII?**

- What type of support does your practice offer DMII patients?
  - Social work
  - Dietician
  - Pharmacist
  - Behavioral Health Clinician
- How do you decide which of these services to refer the patient to?
- How do you go about making the connection between the patient and one of these services?
- How does your practice normally follow up with patients about their DMII care?

**15. How does this look different between newly-diagnosed patients versus follow-up patients?**

**16. What systems does your practice have in place to support the management of patients with DMII?**

- How, if at all, is your practice's Electronic Health Record used to support managing patients with chronic disease?
- What Electronic Health Record system is used by your practice?
- Does your Behavioral Health Clinician have access to the Electronic Health Record system?
  - If so, what level of access do they have to clinical information?
- What types of patient self-management support are available for patients with DMII? [Examples include: Introductory material about DMII, self-care (e.g., blood glucose, foot care), exercise, nutrition and health, medical care and other related illnesses]
  - Who offers these services and supports?
  - What types of services and supports, outside of the practice, are typically recommended to patients?

Now, I'd like to talk with you about the care you provide to patients with DMII.

**17. How do you help patients with their behavioral health needs (e.g., managing depression, anxiety)?**

- What services and supports do you/ the Behavioral Health Clinician provide to patients who are either screened or discussed their concerns about depression and/or anxiety with providers?
  - Aside from the services and support that you/ the Behavioral Health Clinician provide, what other support can your practice offer patients with behavioral health needs?
  - What community partner services and support are available, if any?
  - What offerings are available to patients with DMII?

**18. [For doctor/Behavioral Health Clinician] What kinds of needs do your patients with DMII have that are beyond what the practice can address?**

- Where do you refer these patients?
- How well does this work for you?
  - For the patients?

**19. Can you tell me about how your practice approaches quality improvement?**

- How does the practice know when quality needs to be improved?
- When something needs to be improved, what does the practice do?
  - [If it sounds like the practice has a formal quality improvement team probe for details about membership and meeting frequency]
- Can you think about one quality of care related problem (or other type of problem) that your practice worked on in the past year? What was the problem, and how did the practice go about understanding the problem and deciding what, if anything, to do about it?
- Has the practice engaged patients and families as advisors to guide quality improvement? If so, how?

*Thank you so much. Before we end today I'd like to understand how what you've described for me might look different since the start of the COVID-19 pandemic.*

**20. How has COVID-19 impacted clinic operations with regard to patients with DMII?**

- What are you doing to continue delivering care during COVID? (e.g., changed hours, started or increased telehealth visits, reduced or eliminated in-person visits)
- How are you managing patients with DMII?
- What care are you not able to provide as a result of COVID-19? Are there certain groups of patients that are primarily impacted? How are you providing care to these groups?

## 21. What questions do you have for us?

### Patient Interview Guide

#### Introduction:

Hi I'm [name] from Oregon Health and Science University. Thank you for participating in this interview. Your primary care practice – [name of practice] – has been focused on making some changes to improve how their team brings together behavioral and medical care for people with DMII. We are speaking with you today because we'd like to hear about your experience receiving care at [name of practice].

Did you have a chance to review the information sheet? Do you have questions?

*Describe how the interview audio transcripts are de-identified and handled:*

Audio recordings will be professionally transcribed, and any information in the interview that could be used to identify you will be stripped from the transcripts. These transcripts will only be seen by and shared with the research team. Anything you mention to us will not be shared back to anyone at [name of practice.]

*Start recording:* Do I have your permission to record this interview?

#### 1. I'd like to start off my telling you a bit more about myself

Hit on the following items:

- what you do professionally
- where you live
- what your family looks like
- Something about your health, while I don't have DMII, I have family members and friends who do. And, something about behavioral health issues, members of my family and my friends grapple with depression, anxiety, etc.
- We are asking them to get personal, and we should think about what we feel comfortable sharing.

#### 2. Would you mind telling me a little about yourself?

#### 3. Tell me a little about your health

- a. Tell me a little about your health care needs

Thank you. We know you are a patient at [name of practice.]

#### 4. Can you describe for me what it's like to be a patient at [name of practice]?

- a. How long have you been getting care here?
- b. Who do you usually see? Anyone outside your primary care physician? Why?
- c. How often do you typically come in?

#### 5. *If patient has mentioned diabetes:* Tell me about a recent visit receiving diabetes care at [name of practice]

- a. *If patient has NOT yet mentioned diabetes:* My understanding is that you have DMII, and I'd like to talk a little bit about that, could you tell me about a recent visit receiving diabetes care at [name of practice]

**6. What do you think [name of clinic] could do to better help you manage your diabetes?**

Great. Thank you. Now, I'd like to talk with you about your behavioral health, when I use this term, I am including behaviors such as eating, exercise, use of substance such as tobacco, alcohol, as well as social well-being.

**7. Have you been asked about aspects of your behavioral health care at [name of practice]?**

- a) If yes, what were you asked about?
- b) If yes, can you describe for me how this was done?
  - a. For example, did you receive a written questionnaire? Did someone on the care team ask you some questions? Did you bring it up?
- c) *If no (don't push), how would you feel if you had been asked about your behavioral health?*

Great. Thank you. Now, I'd like to talk with you about your mental health care, when I use this term, I am including emotions such as depression, anxiety, grief and diabetes distress

**8. Have you been asked about aspects of your mental health at [name of practice]?**

- a. If yes, what were you asked about.

**9. Have you completed a survey at the clinic asking you about your mental health such as depression or anxiety?**

- a) If yes, what did you think about this survey?
- b) If yes, what did the clinical team talk to you about after the survey?
- c) What happened after the survey?
- d) *If no, prompt a bit, this may have been something you were asked to fill out in the waiting room and may have had questions such as asking if in the last few weeks you've had little pleasure or interest in doing things*
  - a. *If still no, how would you feel about taking a survey meant to screen patients for depression or anxiety at regular intervals—let's say annually?*

**10. Now that we've had a chance to talk a bit about your health and health care, what do you like about this clinic?**

- a. What do you not like about this clinic?
- b. How do you think things might be improved?

**11. Questions for us?**

Thank you very much for your time speaking with me. Have a great day!