

QI Study: Assessing Diabetes Distress in Adults with Type 2 Diabetes in a Primary Care Medical Home Model

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ABOUT PREMISE HEALTH

Headquartered in Brentwood, TN, Premise Health delivers onsite, nearsite, and virtual healthcare to innovative organizations, including many Fortune 1000 employers. It operates 600+ wellness centers in 44 states and Guam, creating value by enhancing healthcare quality and experience, which lowers costs by helping people live healthier.

ELEMENT 1: PURPOSE

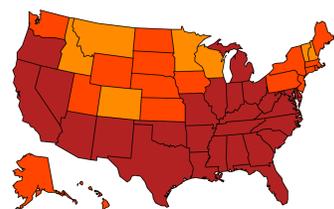
Purpose: Improve the quality of care and interdisciplinary approach to care delivered at Premise centers by incorporating the diabetes distress survey as part of the psychosocial assessment of adult patients with type 2 diabetes.

Problem: The American Diabetes Association recommends routine screening for diabetes distress in patients with type 2 diabetes in the primary care setting. Diabetes Distress is an emotional state where people experience feelings such as stress, guilt, or denial that arise from living with diabetes and the burden of self-management. This is currently not being done at the Premise center.

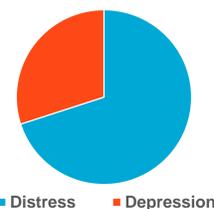
Background: Lack of awareness about diabetes distress in primary care.

- >30 Million Americans affected by diabetes
- 80% seek care to manage their type 2 diabetes in primary care
- 18-45% of patients with type 2 diabetes have diabetes distress
- Diabetes distress is not depression
- Diabetes distress negatively affects self-management abilities
- Many patients struggle despite best efforts
- \$245 billion-dollar impact on the healthcare system

Age-Adjusted Prevalence of Diagnosed Diabetes Among US Adults (2015), (CDC)



Rates of Depression vs. Distress in Adults with Type 2 Diabetes



Missing Data
 4.5% - 5.9%
 6.0% - 7.4%
 7.5% - 8.9%

ELEMENT 2: GOAL

Goal: The goal was to increase the number of diabetes distress assessments by 20%. There was no baseline for comparison in the literature or at the Premise center.

The performance goal established by the American Diabetes Association is that screening should be accomplished for 100% of patients with diabetes under the following circumstances:

- During their annual physical
- If the patient begins to have complications related to their diabetes
- Appropriate self-management behaviors are not being maintained

ELEMENT 3: DEFINED DATA

Define Data: Centers identified that none of the providers (MDs, NPs, or RN condition managers) caring for patients with diabetes were assessing for diabetes distress.

As a result:

- Diabetes distress survey (both 2 and 17 question versions) identified as an appropriate, reliable, and valid screening tool for primary care
- Training intervention completed

The data needed included:

- Staff training knowledge assessments: Pre, post, and two-month post tests
- Number of diabetes distress patient surveys completed
- Rates of diabetes distress in the population
- Retrospective chart review for completion of surveys and referrals

ELEMENT 4: COLLECTION OF DATA

- Data was collected between June 25 and October 31, 2018
- Staff training knowledge assessments recorded/analyzed using SPSS v25
- Patient diabetes distress surveys collected and scored for diabetes distress
- 100% patient chart review on those receiving a diabetes distress survey

NOTE: Provider feedback concerning the project was added to the two-month post test assessment. Additionally, many patients offered feedback, which was included on their surveys. This feedback clearly communicated the value this conversation offered in regard to the patient-provider relationship.

ELEMENT 5: ANALYSIS

SPSSv25 was used to perform a paired sample t-test to compare staff training knowledge assessments pre, post, and two-month post test.

This analysis identified a statistically significant change in provider understanding of diabetes distress and its implications in clinical management of type 2 diabetes.

Centers	# of DDS2 Surveys Completed	# of DDS17 Surveys Completed **	# of surveys Scored Positive for Diabetes Distress	% of Total Scored Positive for Diabetes Distress
Center 1	17	5	3	18%
Center 2	10	3	4	40%
Center 3*	1	1	1	100%
Center 4	37	0	12	32%
Total	65	9	20	30%

*Data analysis for Center 3 was excluded as outlier data points
 ** The 17 question surveys were done as a result of a positive findings on the DDS2. The sensitivity/specificity was .95/.85 for the DDS2, α Coefficient is .73. It is recommended that a positive DDS2 should be followed by the DDS17 for greater insight into the specific area of Distress.

Paired Samples Test

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1. Mean Pre - Mean Post	-.531	.213	.053	-.645	-.418	-9.989	15	.000
Pair 2. Mean Pre - Mean 2M	-.429	.403	.101	-.694	-.264	-4.755	15	.000
Pair 3. Mean Post - Mean 2M	.052	.359	.090	-.139	.243	.581	15	.570

95% Confidence Interval of the Difference

Data Analyzed

The total number of diabetes distress surveys completed:

- The number of Positive (a score of ≥ 3) or negative (< 3) for diabetes distress
- Rates for positive results were calculated for each center, and in aggregate

ELEMENT 7: CORRECTION

After 14 days an evaluation of the process was reviewed with staff and corrections made to initial workflow:

- All centers:** Providers found the internal referral process in the new electronic health record (EHR) to be time consuming and problematic.
 - Workflow was modified to use secure messaging, since all team members were using the same EHR (Epic). This was faster and well received.
- Center 2:** Nurse provided survey to patient to complete while waiting in exam room for provider.
- Center 4:** Determined process more effective for condition management nurse, rather than providers, to complete the survey with the patient. The nurse then documents findings and notifies the primary care provider of a positive result.

ELEMENT 8: RE-MEASUREMENT

Charts were reviewed to identify:

- 74 Diabetes distress surveys were scanned into patient charts.
- Surveys were collected between June 25 – October 31, 2019
- Provider referral was made either by warm hand-off or secure message in the EHR for patients with a positive diabetes distress survey screening.

The re-measurement was a successful identification that:

- 100% (74) of diabetes distress surveys were scanned into the patient's chart.
- 100% of patients having moderate-high levels of diabetes distress were offered services from the condition management nurses or the behavioral health provider
- The new measurement also showed a change in provider knowledge about diabetes distress, its impact on clinical outcomes and member-provider relationships.
- The rates of diabetes distress were in line with published, peer-reviewed literature. Assessments allowed the onsite care team to focus on areas identified by the patient that were a burden or caused distress.

ELEMENT 10: REPORTING

This was communicated throughout the organization by:

- All condition management nurses in the organization have been trained on the impact of diabetes distress on a member's ability to self-manage his or her condition and use of the diabetes distress survey.
- This survey has been presented to the regional clinical leadership teams and additional training is scheduled for 2020.
- The clinical informatics teams are in the process of adding the diabetes distress survey as a screening tool within the EHR workflow as a result of feedback from providers involved in the study. This will improve provider workflow to perform diabetes distress assessments per recommended guidelines across the organization.
- This project was approved by the medical operations leadership team in April 2019.
- Project's poster selected to present findings at the AADE annual meeting.



Key Findings

- Rates of diabetes distress ranged from 18-40% with an average of 30%
- 74 diabetes distress surveys were accomplished
- 100% of providers and condition management nurses documented results correctly
- 100% of patients were referred to appropriate services to reduce rates of diabetes distress

ELEMENT 6: PERFORMANCE VS. GOAL

Performance showed a positive improvement in practice change and collaborative efforts of the healthcare team to accomplish 74 assessments.

However, due to the new electronic health record, patient problem lists had not been updated to identify all patients presenting to the center for diabetes. Therefore, the team was unable to determine that 20% of patients were screened.