



## Review Article

# Diabetes and Depression: Strategies to Address a Common Comorbidity Within the Primary Care Context <sup>☆,☆☆,★</sup>



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## ABSTRACT

Diabetes and depression represent a prevalent, bidirectional, and impactful comorbidity that affects patient and family quality of life, glycemic self-management, long-term diabetes complications, usage of medical services, medical costs, and early mortality. Primary care providers (PCPs) are frequently the first medical providers to observe changes in mood and diabetes management, as well as the primary point of contact for making referrals to specialty providers (e.g. endocrinology, psychiatry). PCPs play a critical role in screening, evaluating, and treating these conditions. Critical to fostering and maintaining a position of trust and patient engagement in medication recommendations is the use of person-centered, nonjudgmental language used by the provider within the clinical encounter. Key strategies for the management of these conditions include the following: routine screening for depressive symptoms, securing access to behavioral health professionals, either within or beyond the primary care setting, collaboration with diabetes care and education specialists to support problem-solving of diabetes self-management, and monitoring the use and effectiveness of antidepressant medications.

## Clinical Significance

- Diabetes and depression, as comorbid conditions, have a significant effect on functioning and medical outcomes, affecting more than 15% of the 37.3 million Americans diagnosed with diabetes each year.
- Primary care providers (PCPs) play a critical role in the management of these comorbid conditions and can serve as the primary point of access to direct treatment and referral to allied health providers (e.g. behavioral health providers, diabetes care and education specialists)
- Routine screening for both depression and diabetes, accompanied by evaluation of screening findings and discussion of treatment options germane to the patient's overall medical presentation, can play a critical role in reducing negative health outcomes.
- Central to this interaction is the use of person-centered language that avoids judgmental and blaming attributions toward patients who are struggling with diabetes self-management and/or depression symptoms.

- Long-term follow-up on diabetes and depression treatment recommendations is important in making meaningful change in the quality of life for patients and their families.

## Introduction

Diabetes and prediabetes represent a large and growing disease population, affecting more than 37.3 million adults in the United States and 48.8% of adults age 65 and older,<sup>1</sup> with direct and indirect costs to individuals, families, and health care systems exceeding \$327 billion annually.<sup>2</sup> Diabetes treatment recommendations include a complex set of self-care behaviors including multiple medications with variable dosing and frequency throughout the day or week, management of diet, initiation and maintenance of regular physical activity, multiple medical appointments for screening, and treatment of diabetes long-term complications<sup>3</sup> that, if fully implemented by patients and their families, can take up to 4-5 hours per day to perform.<sup>4</sup>

Depression is a prevalent comorbid condition for people with diabetes. Rates of depression range from 1 in 4 adults with diabetes with

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elevated depressive symptoms that merit further evaluation (e.g. PHQ-9 scores  $\geq 10$ ) to 1 in 8 adults who meet diagnostic criteria for clinical depressive syndromes such as major depressive disorder.<sup>5</sup> Diabetes and depression have a bidirectional relationship in which a preexisting history of clinical depression increases the risk of subsequent type 2 diabetes by 60%, and the presence of type 2 diabetes increases the risk of developing subsequent depression by 15%.<sup>6,7</sup> Comorbid depression and diabetes is associated with decreased quality of life,<sup>8</sup> elevated glycemia,<sup>9</sup> increased risk and severity of long-term diabetes complications,<sup>10,11</sup> increased use of medical services,<sup>12</sup> increased risk of functional disability,<sup>13</sup> and increased risk of all-cause mortality.<sup>14</sup>

Even more concerning is the course of major depression in adults with type 2 diabetes. Two studies have demonstrated, using retrospective data collection, that the duration of major depressive episodes for adults with type 2 diabetes is approximately 24 months, compared to 8-12 weeks within the general population.<sup>15,16</sup> In a large sample of adults with type 2 diabetes, the average exposure to all clinical depressive diagnoses was 5 years, irrespective of treatment.<sup>17</sup> These data point to the absence of prompt and spontaneous remission of depressive episodes in people with diabetes.

In the past 2 years, we have observed significant increases in rates of depression associated with the COVID-19 pandemic in adults both with and without diabetes. In a sample of more than 2165 adults with and without diabetes, rates of depressive symptoms that were 4-5 times higher than rates observed in previous NHANES samples evaluated in 2019 were observed in those with and without diabetes.<sup>18</sup> Factors associated with depression in those with diabetes included insecurity related to income and access to diabetes supplies,<sup>18,19</sup> persistent and comorbid diabetes-related distress, and socioeconomic and racial disparities prominent in youth, people of color, and middle-age adults.<sup>18</sup> Data collected more than 18 months after the onset of the pandemic in the United States have revealed that rates of moderate to severe levels of diabetes distress did not subside even when depressive and anxiety symptoms showed improvement.<sup>20</sup> These data point to the long-term effects of the pandemic experience and the ongoing presence of comorbid depression among primary care patients. As the primary point of contact with the medical system for most patients, primary care providers (PCPs) are well-positioned to be the listening post for the onset of both new diabetes and new depression, as well as the bridge to treatment options that extend beyond the scope of the primary care office. In this article, we will discuss critical roles that PCPs can take to promote the identification and effective treatment of both depression and diabetes in their patients.

#### *First: Do No Harm*

The patient-centered care movement has succeeded in changing the expectations of both patients and providers regarding the language and tone used in the clinical encounter. These changes have been particularly welcomed by patients and their families who have experienced decades of stigma for their medical conditions from both the larger societal dialog and, regrettably, some medical providers. People with mental health conditions and those with diabetes have had ample stigma experiences over many decades related to depression as a 'moral weakness' or character flaw, imprecise or blatantly false attributions of blame for 'laziness,' being responsible for becoming overweight or obese or developing type 2 diabetes, communications of shame and blame for struggles with glycemic management, and the onset or exacerbation of diabetes complications, in addition to the social, economic, and psychological impact of the onset and progression of the disease itself.<sup>21-23</sup> While the 'moral' approach to behavior change may be well intentioned, it has been repeatedly demonstrated to have poor outcomes. For example, in a recent study of 1227 adults with type 2 diabetes, weight stigma was associated with increased frequency of binge eating, eating as a coping strategy for negative emotions, lower levels of physical activity, and worse self-rated health.<sup>22</sup>

Provider use of patient-centered, nonstigmatizing language is a critical foundation for effective treatment of type 2 diabetes and reduction of mental health correlates. In qualitative research on patient preferences of PCPs, factors identified to promote a strong patient-clinician relationship included the following: creating a trusted and safe space for discussion, adequate time for discussion during visits, communication that provides resources to patients, and high-quality referrals.<sup>24</sup> In the Healthy Work Place Trial, predictors of patient trust included medical explanations by providers, overall satisfaction with the provider, learning about medical conditions, and the clinician's personal manner, factors that are directly deliverable in the examination room.<sup>25</sup>

Multiple international organizations<sup>23</sup> now embrace the use of patient-centered language in clinical interactions to promote feelings of acceptance and collaboration among patients so that periods of struggle can be effectively and efficiently addressed. In 2017, the American Diabetes Association (ADA) and American Association of Diabetes Educators published the Use of Language Consensus Statement<sup>26</sup> that has been incorporated into the annual American Diabetes Association Standards of Medical Care for Diabetes.<sup>3</sup> The tenants of the 2017 ADA Use of Language statement include the following: (a) language creates reality and the opportunity for shared understanding, empathy, and behaviors; (b) language that utilizes moral judgments or attributions about patient behavior undermines the intentions of the speaker, frequently resulting in the opposite intended effect; and (c) language that is descriptive, depersonalized, and disrespectful promotes patient engagement, mutual understanding, and provider empathy. Examples of stigmatizing and patient-centered language are shown in **Box A**.

Use of nonjudgmental and nonstigmatizing language requires subtle changes in our daily scripts that create the opportunity to enhance our interpersonal and medical outcomes by reducing patient fears of stigmatization, increasing veracity and openness of data sharing, and promoting invitations to share pertinent information that may influence treatment recommendations and decisions, as well as potentially improve patient satisfaction with care and provider feelings of engagement and accomplishment within and across patients.

#### *Screening*

Detection of prediabetes and the presence of depressive symptoms creates the opportunity for further evaluation and initiation of early treatment. Diabetes screening can be performed by patients by naming individual and familial risk factors on the [www.diabetes.org/risktest](http://www.diabetes.org/risktest) website.<sup>27</sup> Medical screening for prediabetes and diabetes can be performed with glycosylated hemoglobin tests (prediabetes: 5.7%-6.4%; diabetes: >6.5%).<sup>3</sup> See the ADA Standards of Medical Care for Diabetes for in-depth recommendations for the treatment of prediabetes and diabetes.

Screening for the presence of depressive symptoms can be accomplished through self-report questionnaires completed ahead of scheduled appointments electronically or by completing questionnaire forms. A list of screening tools, a number of which have been incorporated into electronic medical record systems, is shown in **Box B**. As noted in the ADA Standards of Care, depression screening tools are not designed to replace diagnostic criteria or evaluation; rather, they are intended to prompt further evaluation for differential diagnosis (e.g. are reported symptoms attributable to a medical condition and do not constitute a new psychiatric syndrome?) and a discussion about treatment options. Questionnaires that specifically query the presence of suicidal ideation, intent, or plan should be reviewed prior to the end of the clinical encounter by designated clinical staff. Procedures for the communication about positive screens to PCPs should be in place to ensure timely review of the forms and implementation of additional evaluation.

Alternatively, screening for depression can be accomplished with brief clinical questions designed to capture changes in mood symptoms. Such questions can include, "In the last 2 weeks, have you been feeling depressed or down most of the day, nearly every day? (depression).

## Box A

The Use of Language in Diabetes Care and Education for Healthcare Providers<sup>26</sup>

Language with Potentially Negative Connotations	Suggested Replacement Language	Rationale
Compliant/noncompliance, adherent/nonadherence	Engagement Participation Involvement Medication taking “He takes his medication about half the time.”	<ul style="list-style-type: none"> <li>Compliance and adherence imply doing what someone else wants. In diabetes care and education, people make choices and perform self-care/self-management.</li> <li>Focus on people’s strengths—what are they doing or doing well and how can we build on that?</li> <li>Focus on facts rather than judgments.</li> </ul>
Control (as a noun, verb, or adjective) Glycemic control, poor control, good/bad control, controlled/uncontrolled	Manage A1C Blood glucose levels or targets Glycemic target/goal Glycemic stability/variability	<ul style="list-style-type: none"> <li>Control is impossible to achieve in a disease where the body no longer does what it is supposed to do.</li> <li>Focus on neutral words that don’t judge, shame, or blame.</li> <li>Focus on what the person is doing or doing well. Focus on intent and good faith efforts.</li> </ul>
Diabetic (as an adjective or noun) Diabetic foot Diabetic person “How long have you been diabetic?” Imperatives Can/can’t Should/shouldn’t Have to Must/must not	Foot ulcer, infection on the foot Diabetes education Person with diabetes “How long have you had diabetes?” “Have you tried...” “What about...” “May I make a suggestion...” “May I tell you what has worked for other people...” “What is your plan for...” “Would you like to consider...” Plan, choices	<ul style="list-style-type: none"> <li>Focus on the physiology.</li> <li>Put the person first and avoid describing people as a disease.</li> <li>Words and statements that are directives make people with diabetes feel as if they are being ordered around like children. They can inflict judgment, guilt, shame, and blame.</li> </ul>
Regimen, rules	Plan, choices	<ul style="list-style-type: none"> <li>Use words that empower people rather than words that restrict or limit them.</li> </ul>
Victim, suffer, stricken, afflicted	... lives with diabetes ... has diabetes ... has diabetes	<ul style="list-style-type: none"> <li>We cannot assume someone is suffering. This puts them in victim mode rather than empowering them.</li> </ul>
In denial	“Dan understands that diabetes can harm him; he does not see diabetes as a priority with everything else that’s going on in his life right now.”	<ul style="list-style-type: none"> <li>Most people are not denying that they have diabetes. This is a reflection that the person does not see diabetes as an important and/or immediate concern.</li> </ul>
Unmotivated, unwilling	“John has not started taking insulin because he’s concerned about weight gain. He sees insulin as a personal failure.”	<ul style="list-style-type: none"> <li>Few people are unmotivated to live a long and healthy life. However, in diabetes management there are many perceived obstacles that can outweigh the understood benefits. As a result, many people come to the conclusion that changes are not worth the effort or are unachievable.</li> </ul>
Cheating, sneaking	Making choices/decisions	<ul style="list-style-type: none"> <li>Recognize that patients are making choices, albeit different from medical recommendations.</li> <li>Discuss discrepancies between recommendations and behaviors with curiosity and respect. Ask what guides patient choices.</li> </ul>
Good/bad/poor	Numbers Choices Food Safe/unsafe	<ul style="list-style-type: none"> <li>Good and bad are judgments.</li> <li>Focus on physiology/biology and tasks/actions using neutral words.</li> </ul>
Fail, failed, failure “She failed metformin.”	“Metformin was not adequate to reach her A1C goal.”	<ul style="list-style-type: none"> <li>People don’t fail medications. If something is not working, we choose a new direction.</li> </ul>
Test Test blood glucose	Check blood glucose Blood glucose monitoring	<ul style="list-style-type: none"> <li>A test implies good/bad or pass/fail. Blood glucose monitoring or checking is a way to gather information to make informed decisions.</li> </ul>
Words/phrases that threaten “You are going to end up blind or on dialysis.”	“More and more people are living long and healthy lives with diabetes. Let’s work together to make a plan that you can do in your daily life.”	<ul style="list-style-type: none"> <li>Many people who are not reaching metabolic goals understand they are at risk for complications. Scare tactics produce short-term behavior change and long-term barriers to self-care.</li> <li>Focus on working together on specific, achievable, and realistic self-directed goals that can improve metabolic outcomes.</li> </ul>

Have you been feeling a lack of interest in activities that you would otherwise enjoy? (anhedonia).<sup>28</sup> In the context of busy medical practices and requirements for productivity, open-ended questions such as these can be interpreted by some providers as a threat to efficiency in data gathering or a risk of ‘opening Pandora’s box’ of psychosocial concerns.

While these concerns are based in the realistic time constraints of clinical practice, PCPs and their staff are also skilled in using the variety of tools within the health care setting to cue patients to curtail extraneous information as needed. It is important to keep in mind that there is risk in ‘learning too little’ from our patients and lack of information can lead

**Box B**

## Screening Tools for Common Psychological Conditions in Diabetes

Topic Area	Measure Title	Description	Validated Population
<b>Diabetes-Related Distress</b>	Diabetes Distress Scale (DDS) <sup>44,45</sup>	17-item questionnaire measuring diabetes-specific distress in 4 domains: emotional burden, diabetes interpersonal distress, physician-related distress and regimen-related distress.	Adults with type 1 and type 2 diabetes
<b>Depression</b>	Patient Health Questionnaire-9 Item (PHQ-9) <sup>46</sup>	9-item measure of depressive symptoms (corresponding to criteria for Major Depressive Disorder)	Adults
<b>Eating Issues/Disorders</b>	Geriatric Depression Scale (GDS) <sup>47</sup>	15-item measure developed to assess depression in older adults	Adults (ages 55-85)
	Diabetes Eating Problems Survey (DEPS-R) <sup>48</sup>	16-item self-report measure designed to assess diabetes-specific eating issues	Youth (ages 13-19) with type 1 diabetes
<b>Self-Care Efficacy</b>	Diabetes Self-Efficacy <sup>49</sup>	8-item self-report scale designed to assess confidence in performing diabetes self-care activities	Adults (age 18 or greater)
<b>Anxiety</b>	Beck Anxiety Inventory <sup>50</sup>	21 items assessing self-reported anxiety	Adults
	Hypoglycemia Fear Survey-II <sup>51,52</sup>	33 items assessing behavioral and worry dimensions of hypoglycemia in adults	Adults with type 1 diabetes
<b>Adherence to Self-Care</b>	Summary of Diabetes Self-Care Activities (SDSCA) <sup>53</sup>	12-item measure of diabetes self-care behaviors	Adults with type 1 and type 2 diabetes
	Adherence to Refills and Medications Scale (ARMS-D) <sup>54,55</sup>	12-item self-report questionnaire designed to assess the extent to which patients take and refill their diabetes-related medications	Adults

to missed opportunities to make effective treatment recommendations. Well-timed evaluation of mood symptoms provides PCPs with an opportunity to tailor treatment to meet the needs of patients and sets the stage for greater behavioral engagement of medical recommendations.

*Treatment Considerations for Comorbid Diabetes and Depression*

When evaluation of depression screening indicates the presence of clinically meaningful depressive symptoms that rise to the level of social or occupational impairment, a variety of evidence-based treatment options are available.

*Medications*

Multiple reviews of antidepressant medications have demonstrated effectiveness in the treatment of depression in adults with diabetes.<sup>29,30</sup> Selective serotonin reuptake inhibitors (SSRIs) and selective norepinephrine reuptake inhibitors (SNRIs) have shown comparable effectiveness in samples of people with diabetes, compared to the general population, with some evidence of mild glucose-lowering effects.<sup>30</sup> Monitoring of weight gain associated with both depression and antidepressant medications is recommended. A meta-analysis indicated a 29% increased risk of weight gain (defined as >5% body weight) over a 10-year period in adults receiving SSRI and SNRI antidepressants.<sup>31</sup> Weight gain is associated with increased insulin resistance and may require ongoing evaluation of the diabetes care regimen. Tricyclic antidepressants have shown effectiveness at levels of therapeutic dosing for depression in adults with diabetes, comparable to the general population.<sup>32</sup> This class of medication is also used at lower doses to treat neuropathic pain and may be a cost-effective medication to treat both depression and neuropathic pain generically at the higher dosing level. However, tricyclic antidepressants are not recommended for older adults in the general population due to increased risk of heart rate variability.<sup>33</sup> The use of supplemental atypical antipsychotic medications (e.g. aripiprazole) to augment antidepressant medication effectiveness may result in increased hyperglycemia and require changes to the diabetes treatment regimen.<sup>34,35</sup>

*Counseling*

Multiple studies have established the efficacy and effectiveness of cognitive behavioral therapy (CBT) counseling in the treatment of depression in adults with diabetes.<sup>30,36-40</sup> This model assesses and addresses the thoughts, feelings, and behaviors that serve to reinforce the homeostasis of depression by identifying automatic thoughts and behaviors and making changes to these patterns by engaging in behavioral and cognitive restructuring. This approach can be delivered within a variety of modalities (e.g. virtual, in-person, group) and treatment contexts.<sup>30</sup>

The Team Care model utilizes electronic health record data to identify at-risk patients with diabetes on the basis of depression screening scores and elevated A1c values to refer such patients to a multidisciplinary team including PCPs, psychiatry, psychology, and nurse case managers. Problem-solving therapy in conjunction with antidepressant medications and titration of diabetes, hypertension, and cholesterol medications can be used sequentially to improve patient outcomes.<sup>36</sup>

Empirically validated CBT counseling for people with diabetes and depression utilizes manualized treatment approaches that have been adapted for virtual<sup>30,38</sup> or individual<sup>37,39</sup> or group delivery.<sup>40</sup> All have been shown to be efficacious and effective in improving depression outcomes in people with diabetes.<sup>30</sup>

*Counseling and Exercise*

Several studies have demonstrated the efficacy of combining physical activity with CBT to improve depression outcomes.<sup>38,39</sup> The most effective of these approaches has combined 10 sessions of individual CBT with 12 weeks of concurrent exercise (goal: 150 minutes/week of aerobic activity) in conjunction with the use of a professional trainer or exercise professional.<sup>38</sup> In the Program ACTIVE II randomized clinical trial, we observed a 0.41 point decrease in A1c following the 12-week intervention among those randomized to either the exercise or combination (CBT + Exercise) conditions whose baseline A1c values were  $\geq 7.0\%$ . Adverse events were minimal and improvements in both depressive symptoms and depression diagnoses were observed. These data suggested that a synergistic effect of CBT and exercise has meaningful impact on short-term medical outcomes and represents good value and cost-savings.<sup>39,41</sup>

*Resources for Primary Care Providers*

As recommended by the ADA Standards of Medical Care for the Treatment of Diabetes, the evaluation and treatment of comorbid depression and diabetes is best served using a team approach that coordinates care, facilitates communication and referrals, and, in turn, supports both PCPs and patients and their families.<sup>3</sup> A team approach can be achieved within a single health care system or across organizations and providers. In **Box C**, resources that are available for coordinated care within and beyond the health care setting are shown.

At the patient-provider dyad level, the ADA has published the *Diabetes and Emotional Health Workbook*, a guide to common psychological conditions associated with diabetes including depression, anxiety, diabetes-related distress, and psychological insulin resistance.<sup>42</sup> This resource is freely available at <https://professional.diabetes.org/meetings/mentalhealthworkbook> for download and use by all PCPs. Screening tools, language considerations, and treatment approaches are provided.

## Box C

## Annotated Resources for the Psychosocial Care of People with Diabetes

Resource	Synopsis	Access
<b>Communication Resources</b>		
2017 Use of Language in Diabetes Care and Education <sup>26</sup>	A consensus statement of the American Diabetes Association and American Association of Diabetes Educators that recommends patient-centered language.	Dickinson JK, Guzman SJ, Maryniuk MD, et al. The use of language in diabetes care and education. <i>Diabetes Care</i> . 2017;40(12):1790-1799. doi:10.2337/dci17-0041. Epub 2017 Oct 17. PMID: 29042412.
2020 Joint International Consensus Statement for Ending Stigma of Obesity <sup>23</sup>	A consensus statement of more than 100 international health organizations to end stigma associated with overweight and obesity. Includes a review of the literature on the negative health outcomes associated with obesity and overweight stigma.	Rubino F, Puhl R, Cummings D, et al. Joint international consensus statement for ending stigma of obesity. <i>Nat Med</i> . 2020;26:485-497. doi:10.1038/s41591-020-0803-x
Social Determinants of Health and Diabetes <sup>58</sup>	A comprehensive review of the literature on the interrelationships of social determinants of health and diabetes onset and course of disease.	Hill-Briggs F, Adler NE, Berkowitz SA, et al. Social determinants of health and diabetes: a scientific review. <i>Diabetes Care</i> . 2020;44(1):258-279. doi:10.2337/dci20-0053. Epub ahead of print. PMID: 33139407; PMCID: PMC7783927.
<b>Behavioral Health Resources</b>		
Diabetes and Emotional Health Workbook <sup>42</sup>	A free resource for health professionals that provides screening tools and intervention strategies for common psychological conditions in diabetes including diabetes-related distress, depression, anxiety, eating issues, and barriers to insulin use.	Available for free download: <a href="https://professional.diabetes.org/meetings/mentalhealthworkbook">https://professional.diabetes.org/meetings/mentalhealthworkbook</a>
A Practical Approach to Mental Health for the Diabetes Educator <sup>59</sup>	A review of practical approaches to screening, assessment, and treatment of psychological conditions associated with diabetes.	Gonsalvo J, Hamm J, Eaves S, et al. (2018). A practical approach to mental health for the diabetes educator. <i>American Association of Diabetes Educators: AADE Practice Paper</i> . Chicago, IL. 7(2): 29-44. doi.org/10.1177/2325160319826929. Contact Mary de Groot, PhD at mdegroot@iu.edu.
The Program ACTIVE Cognitive Behavioral Therapy Workbook <sup>39,41</sup>	A 10-session manualized cognitive behavioral therapy treatment for depression in adults with type 2 diabetes. Designed for use by behavioral health professionals with adults with type 2 diabetes.	
<b>Resources for the Treatment of Type 2 Diabetes</b>		
Consensus Report of the ADA, ADCES, AND, AAFP, AAPA and AANP and APA on Diabetes Self-Management Education and Support in Adults with Type 2 Diabetes <sup>56</sup>	Recommendations for the treatment of adults with type 2 diabetes.	Powers MA, Bardsley JK, Cypress M et al. Diabetes self-management education and support in adults with type 2 diabetes: a consensus report of the American Diabetes Association, the Association of Diabetes Care & Education Specialists, the Academy of Nutrition and Dietetics, the American Academy of Family Physicians, the American Academy of PAs, the American Association of Nurse Practitioners, and the American Pharmacists Association. <i>Diabetes Care</i> . 2020;43(7):1636-1649. doi:10.2337/dci20-0023. Epub 2020 Jun 8. PMID: 32513817.
Practice Strategies for the Use of Peer Support Communities <sup>57</sup>	Recommendations for collaboration with patient use of peer support communities among people with diabetes. Considerations for the ways patients are obtaining information about diabetes management outside the clinical encounter.	Warshaw H, Edelman D. Building bridges through collaboration and consensus: expanding awareness and use of peer support and peer support communities among people with diabetes, caregivers, and health care providers. <i>J Diabetes Sci Technol</i> . 2019;13(2):206-212. doi:10.1177/1932296818807689. Epub 2018 Nov 4. PMID: 30394789; PMCID: PMC6399793.

With respect to counseling services, it is important to keep in mind that not all patients are comfortable or willing to use medication approaches for the treatment of comorbid depression and diabetes. In addition, a single treatment strategy (e.g. antidepressant medication use alone) approach may not be sufficient to treat depression in the context of diabetes. A critical element to a successful referral to behavioral health services is providing a rationale for the patient for the need for services. “Do you think I’m crazy?” is a commonly stated or unstated reaction that originates from societal stigma and beliefs about mental health and illness. Addressing these concerns proactively builds a bridge of mutual understanding and can be empowering to patients who may not understand the nature and medical consequences of untreated depression and diabetes.

PCPs who have access to embedded health psychology or behavioral health providers can make referrals to a known provider that can ensure access to care and confidence of patients and providers that contact for services will be made. For practices that do not have this resource either embedded, colocated, or otherwise easily accessible, it is important for PCPs to keep an updated list of psychological/behavioral health referral sources available for patients. In addition, community organizations that provide exercise, pastoral counseling, or other forms of services can be identified through community linkage sites (e.g. AuntBertha.com, [findhelp.org](http://findhelp.org), 211) to facilitate ease of referral and communication about service utilization by patients.

### Beyond the Initial Treatment Recommendation

However a referral for treatment of depression is made (e.g. prescribing an antidepressant medication, referral to counseling within or beyond the health care system), clinical follow-up at the next visit by the PCP is critical to ensuring successful linkage to treatment. Asking about access and contact, assessing barriers that may have interfered with acquisition of treatment, and engaging patients in problem-solving around barriers are critical elements to meaningful access to treatment. Addressing personal health beliefs, cultural assumptions, and logistical barriers to care are critical elements that can address health equities commonly observed in people with diabetes.<sup>43</sup> Helping patients to understand their diabetes diagnosis from a process perspective (i.e. a journey) can facilitate less self-criticism and distress and reduce cognitive and emotional drivers of depression. At the heart of this recommendation is good medicine—caring for our patients, sharing a common humanity, and providing them with tangible tools and resources to improve outcomes.

### Summary

Diabetes and depression, as comorbid conditions, have a significant effect on functioning and medical outcomes, affecting more than 15% of the 37.3 million Americans diagnosed with diabetes each year. PCPs

play a critical role in the management of these comorbid conditions and can serve as the primary point of access to direct treatment and referral to allied health providers (e.g. behavioral health providers, diabetes care and education specialists). Routine screening for both depression and diabetes, accompanied by evaluation of screening findings and discussion of treatment options germane to the patient's overall medical presentation, can play a critical role in reducing negative health outcomes. Central to this interaction is the use of person-centered language that avoids judgmental and blaming attributions toward patients who are struggling with diabetes self-management and/or depression symptoms. Such language augments patient trust and can reduce distress and enhance behavioral engagement in medical recommendations. Finally, long-term follow-up on diabetes and depression treatment recommendations is important in making meaningful change in the quality of life for patients and their families.

### Declaration of Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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