The wide array of comorbidities and treatment variables can make diabetes a difficult disease to manage—and to live with. Providers must be equipped to address the complexities and complications that affect patients with diabetes. In December 2016, the American Diabetes Association published a position statement recognizing the psychosocial factors (environmental, social, behavioral, and emotional) that affect medical outcomes and psychological well-being in persons with diabetes. These include self-management, diabetes distress, psychological comorbidities, and life-course considerations.1

SELF-MANAGEMENT
A patient’s perception of his or her ability to self-manage diabetes is an important psychosocial factor in treatment and management outcomes. Training patients with diabetes in self-care skills and the use of technologies—at the time of diagnosis, annually, and/or when complications or transitions in care occur—can empower patients to assume an active role in their daily management. These interventions can be tailored to address specific, individualized problems that contribute to suboptimal glycemic outcomes, such as issues in numeracy or coping, food insecurity, or lack of support. Employing a nonjudgmental approach that normalizes periodic lapses in self-management may help encourage patients and minimize their resistance to self-management.

DIABETES DISTRESS
The frustration, worry, anger, guilt, and burnout imposed by diabetes and its management (via glucose monitoring, medication dosing, and insulin titration) is known as diabetes distress. With a reported prevalence of 18% to 45%, this disease burden is quite common.2 Because high levels of diabetes distress are associated with low self-efficacy, poor glycemic outcomes, and suboptimal exercise/dietary habits, referral for counseling should be considered if a patient expresses feelings of distress.

Use of validated screening tools, such as Problem Areas in Diabetes (PAID)3,4 or the Diabetes Distress Scale (DDS)5, can aid in routine monitoring for diabetes distress. (See the Table, page 12, for more information.) If distress is identified in specific self-care areas, further patient education on self-management is appropriate.

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TABLE
Selected Screening Tools for Psychosocial Comorbidities in Patients With Diabetes*

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
<th>Population for Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Areas in Diabetes</td>
<td>20-item measure of diabetes distress</td>
<td>Adults with type 1 and type 2 diabetes</td>
</tr>
<tr>
<td>Diabetes Distress Scale</td>
<td>17-item questionnaire measuring diabetes distress</td>
<td>Adults with type 1 and type 2 diabetes</td>
</tr>
<tr>
<td>Patient Health Questionnaire-9</td>
<td>9-item measure of depressive symptoms</td>
<td>Adults</td>
</tr>
<tr>
<td>Beck Depression Inventory-II</td>
<td>21-item questionnaire evaluating somatic and cognitive depressive symptoms</td>
<td>Adults</td>
</tr>
<tr>
<td>Diabetes Eating Problem Scale-R</td>
<td>16-item self-report measure to assess diabetes-specific eating disorders</td>
<td>Youth (ages 13-19) with type 1 diabetes</td>
</tr>
<tr>
<td>Diabetes Treatment Satiety Scale</td>
<td>20-item self-report assessing satiety and fullness in diabetes</td>
<td>Youth (ages 10-17) with type 1 diabetes</td>
</tr>
<tr>
<td>State-Trait Anxiety Inventory for Children</td>
<td>40-item measure of trait and state anxiety</td>
<td>Youth with and without type 1 diabetes</td>
</tr>
<tr>
<td>Beck Anxiety Inventory</td>
<td>21-item self-report assessing anxiety</td>
<td>Adults</td>
</tr>
<tr>
<td>Hypoglycemia Fear Survey-II</td>
<td>33-item assessment of behavioral and worry dimensions of hypoglycemia</td>
<td>Adults with type 1 diabetes</td>
</tr>
<tr>
<td>Children’s Hypoglycemia Index</td>
<td>25-item assessment of fear of hypoglycemia</td>
<td>Youth (ages 8-16) with type 1 diabetes</td>
</tr>
</tbody>
</table>

*A complete table of tools for assessing diabetes distress is available from the American Diabetes Association (see citation below).

Source: Adapted from Young-Hyman et al. Diabetes Care. 2016.¹

**PSYCHOLOGICAL COMORBIDITIES**

Depression, anxiety, disordered eating, and serious mental illness (eg, schizophrenia) are known psychological comorbidities of diabetes. Screening for symptoms using patient-appropriate, standardized/validated tools should occur at initial visit, at periodic intervals, and when there is a change in disease, treatment, or life circumstance.

**Depression**

Patients with diabetes should be screened for depression when medical status worsens or when complications occur; it is recommended to include caregivers and family members in this assessment. Patients who screen positive for depression should be referred to mental health providers who have experience with cognitive behavioral therapy, interpersonal therapy, or other evidence-based treatment approaches, and who can provide collaborative care alongside the diabetes treatment team. Once diagnosed with depression, patients should be screened annually.

**Anxiety**

Expression of fear, dread, or irrational thoughts, avoidant and/or repetitious behaviors, and social withdrawal are signs of anxiety that should prompt screening. Consider screening for anxiety in patients who express worry about diabetes complications, insulin injections or infusion, taking medications, and/or hypoglycemia that interferes with self-management behaviors. Patients with hypoglycemia unawareness, which can co-occur with fear of hypoglycemia, can increase self-monitoring of glucose with a glucometer or continuous
glucose monitor. Blood Glucose Awareness Training (or other similar evidence-based intervention) can be used to help reestablish awareness of hypoglycemia and reduce fear of hypoglycemia. Providers can deliver hypoglycemia awareness education in the clinic.

**Disordered Eating**

When hyperglycemia and weight loss are unexplained by self-reported medication dosing, diet, and exercise, consider screening for disordered or disrupted eating (see Table for screening tools). In addition, reviewing the medical regimen is recommended to identify potential treatment-related effects on hunger/caloric intake.

**Cognitive Impairment**

Since research has shown significantly increased rates of diabetes among persons with serious mental illness (eg, schizophrenia), annual screening for prediabetes and diabetes is recommended for those taking atypical antipsychotic medications. Furthermore, some of the effects of serious mental illness—such as disordered thinking and impaired judgment—make it difficult for a patient to engage in risk-reducing behaviors or (if diagnosed) to manage diabetes. Therefore, monitoring of diabetes self-care activities should be incorporated into treatment goals for persons with these comorbid conditions.

**CONCLUSION**

As providers, we should be familiar with the evidence-based, validated tools available to identify the psychosocial comorbidities of diabetes. Screening and assessing patients for psychosocial/behavioral challenges should be performed at an initial visit, at periodic intervals, and whenever there is a change in disease, treatment, or life circumstances.

Health care alliances with behavioral/mental health providers who are knowledgeable about diabetes treatment and the psychosocial aspects of diabetes are key. Patient-centered care is essential to promote optimal medical outcomes and psychological well-being. As members of the health care team, we must be respectful and responsive to patient preferences, needs, and values; clinical decisions should be guided by patient values. If A1C is not at goal despite maximized medication therapy and lifestyle modification, consider identifying and addressing any psychosocial factors that may be involved.

**REFERENCES**