Psychosocial Care in People with Diabetes
Learning Objectives

• Describe the interactions between living with and managing diabetes and associated psychosocial issues, which range from normative diabetes specific distress to diagnosable psychological disorders.

• List approaches for identifying symptoms of distress, including screening methods, for people with diabetes within routine care.

• Indicate appropriate referral and treatment options for people impacted by both sub-clinical and clinical psychological distress.

• Identify paradigms for implementing psychosocial services into person-based team care using the collaborative care model.
# Psychosocial Care: Life and Disease Course Perspectives

<table>
<thead>
<tr>
<th>Phase of living with diabetes</th>
<th>Continuum of psychosocial issues and behavioral health disorders in people with diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavioral health disorder prior to diabetes diagnosis</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Diabetes diagnosis</strong></td>
<td>Normal course of adjustment reactions, including distress, fear, grief, anger, initial changes in activities, conduct or personality</td>
</tr>
<tr>
<td><strong>Learning diabetes self-management</strong></td>
<td>Issues of autonomy, independence, and empowerment. Initial challenges with self-management demonstrate improvement with further training and support</td>
</tr>
<tr>
<td><strong>Maintenance of self-management and coping skills</strong></td>
<td>Periods of waning self-management behaviors, responsive to booster educational or supportive interventions</td>
</tr>
<tr>
<td><strong>Life transitions impacting disease self-management</strong></td>
<td>Distress and/or changes in self-management during times of life transition***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nonclinical (normative) symptoms/behaviors</th>
<th>Clinical symptoms/diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mood and anxiety disorders</td>
<td>• Adjustment disorders*</td>
</tr>
<tr>
<td>• Psychotic disorders</td>
<td>• Psychological factors** affecting medical condition</td>
</tr>
<tr>
<td>• Intellectual disabilities</td>
<td>• Maladaptive eating behaviors</td>
</tr>
<tr>
<td></td>
<td>• Psychological factors** affecting medical condition</td>
</tr>
</tbody>
</table>

*With depressed mood, anxiety, or emotion and conduct disturbance. **Personality traits, coping style, maladaptive health behaviors, or stress-related physiological response. ***Examples include changing schools, moving, job/occupational changes, marriage or divorce, or experiencing loss.
## Psychosocial Care: Life and Disease Course Perspectives

<table>
<thead>
<tr>
<th>Phase of living with diabetes</th>
<th>Continuum of psychosocial issues and behavioral health disorders in people with diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease Progression and onset of complications</td>
<td>Distress, coping difficulties with progression of diabetes/onset of diabetes complications impacting function, quality of life, sense of self, roles, interpersonal relationships</td>
</tr>
</tbody>
</table>
|                                | • Adjustment disorders*  
|                                | • Psychological factors** affecting medical condition |
| Aging and its impact on disease and self-management | Normal age-related forgetfulness, slowed information processing and physical skills potentially impacting diabetes self-management and coping |
|                                | • Mild cognitive impairment  
|                                | • Alzheimer or vascular dementia |

*With depressed mood, anxiety, or emotion and conduct disturbance. **Personality traits, coping style, maladaptive health behaviors, or stress-related physiological response. ***Examples include changing schools, moving, job/occupational changes, marriage or divorce, or experiencing loss.

Providers for psychosocial and behavioral health intervention

- All healthcare team members (e.g., physicians, nurses, diabetes educators, dieticians) as well as behavioral providers
- Behavioral or mental health providers (e.g., psychologists, psychiatrists, clinical social workers, certified counselors or therapists)

American Diabetes Association
Implementation of Team Based/ Person-Centered Care

• Collaborative Care Model
  – Physician, case manager, educator, and mental health consultant (psychiatry, psychology), within the practice
  – Active monitoring with ongoing exchange of information re: medical and psychosocial outcomes
  - Active re-alignment of regimen to meet person needs and to reach desired health outcomes

• Embedded Behavioral Specialist
  – Psychologist, Social Worker, Psychiatrist at the clinic site
  – In practice or consultant, member of the interdisciplinary team

• Referral to Behavioral Provider
  – Referral outside the practice
  – Concurrent care; coordinated targeted goal setting
  – Formal Communication of person’s progress between providers (EMR, feedback to referring provider)
Case Study

**Introduction**

- Mrs. R is a 66-year-old librarian
- She was diagnosed 8 years ago
- Over the past 2 years A1Cs ~ 9-10.5%
- She notes feeling powerless to achieve better blood sugar values - her provider notes this during clinic visit assessment
- She also has hypertension, hypercholesterolemia

Continued...
Case Study (Cont’d)

Discussion Question
What could you screen for in this person (PWD)?
A. Diabetes distress, depression, anxiety
B. Disordered eating
C. Depression and cognitive impairment
D. Depression and anxiety
E. Cognitive Impairment
General Considerations

- Psychosocial care should be integrated with a collaborative, person-centered approach.
- Psychosocial screening and follow-up includes:
  - Attitudes about diabetes
  - Expectations for medical management and outcomes
  - Affect or mood
  - General and diabetes-related quality of life
  - Available resources: financial, social
  - Psychiatric history
General Considerations (Cont’d)

• Consider assessment for symptoms of diabetes distress, depression, anxiety, disordered eating behaviors, and cognitive capacities

• Assess psychosocial issues in the context of the burden of diabetes self-management

• Consider screening older adults (aged ≥65 years) with diabetes for cognitive impairment and depression
Screening Recommendations

1. Include routine psychosocial assessment as part of ongoing diabetes care using a collaborative, person-centered approach.

2. Psychosocial issues should be understood through a life-course lens, understanding that life circumstances and therefore the needs of the person with diabetes, will change over time.

3. Screening and follow-up should include attitudes, expectations, mood, general and diabetes-related quality of life, resources, and psychiatric history.

Continued...
Screening Recommendations (Cont’d)

4. Screening that reaches the level of clinical significance requires referral to appropriate care providers.

5. Routinely screen for depression, diabetes-related distress, anxiety, disordered eating behaviors.

6. Older adults should be considered a high priority population for screening & treatment.

Standards of Medical Care in Diabetes. Diabetes Care 2015; 38 (Suppl. 1): S1-S93
When to Screen

- At diagnosis
- Regularly scheduled visits
- Changes in medical status
- During hospitalization(s)
- When new-onset complications occur
- Whenever problems are identified with:
  - Glucose control
  - Quality of life
  - Self-management
Person-Centered Care Challenge…

• What information or clinical observations would prompt you to refer Mrs. R to a mental health provider?
When to Refer to a Mental Health Provider

- Self-care impaired after tailored diabetes education
- Evidence of diabetes distress related to managing disease: self-care behaviors, lack of resources, unsupportive social environment as examples.
- Positive screen on a validated screening tool for depressive symptoms
- Symptoms or suspicions of disordered eating behavior, an eating disorder, or disrupted patterns of eating specific to the care regimen
- Intentional omission of insulin or oral medication to cause weight loss
- Positive screen for anxiety or fear of hypoglycemia

Continued...
When to Refer (cont’d)

- Serious mental illness is previously documented or suspected
- Youth and families with behavioral self-care difficulties, repeated hospitalizations for diabetic ketoacidosis, or significant distress
- Screens positive for cognitive impairment
- Declining or impaired ability to perform diabetes self-care behaviors
- Before undergoing bariatric or metabolic surgery and after surgery for 1yr
Examples of Psychosocial Issues

• Diabetes distress

• Mental health disorders
  – Depression
  – Anxiety
  – Disordered eating
Diabetes Distress
Diabetes Distress: Prevalence and Impact

- 18-45% with an incidence of 38-48% over 18 months
- High levels of diabetes distress significantly impact medication-taking behaviors
- Linked to higher A1C, lower self-efficacy, poorer dietary and exercise behaviors
- One-third of adolescents with diabetes develop diabetes distress (associated with declines in self-management behaviors and suboptimal blood glucose levels)
- Parents of children with type 1 diabetes prone to diabetes distress, which impacts their ability to provide support for their child
Diabetes Distress

- Significant negative emotional reaction to:
  - Diabetes diagnosis
  - Worry and fear regarding health
  - Financial and behavioral burden of living with diabetes
  - Onset of complications
  - Impact on lifestyle of self-management demands
  - Lack of support in managing diabetes

Gonzales et al. *Diabetes Care* 2011; 34:2222–2227
Diabetes Distress: Survey Instruments

- Problem Areas In Diabetes (PAID)
- Diabetes Distress Scale (DSS)
- PAID-Peds
- PAID-Teen Version
- PAID-Parent Revised Version
Diabetes Distress: Treatment

- Develop a step-by-step action plan to address key concerns
- Provide continuing emotional and instrumental support: reduce burden of care whenever possible through shared responsibility taking
- Follow up with feedback about health status and constructive feasible strategies to improve outcomes
- If setting goals, make sure they are “SMART:”
  - Specific
  - Measurable
  - Achievable
  - Realistic
  - Time-limited in duration
Depression
Depression Impact

- Affects one in four patients with type 1 or type 2 diabetes
- Associated with poorer self-care and medication adherence
- Increases risk for obesity, sedentary lifestyle, smoking
- Greater risk for complications
- Increases health care service utilization and costs
- Increases risk for type 2 diabetes

## Association of Depression with Diabetes Self-Care

<table>
<thead>
<tr>
<th>Self-Care Activities (Past 7 Days)</th>
<th>Major Depression (%)</th>
<th>No Major Depression (%)</th>
<th>Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy eating ≤ 1x week</td>
<td>17.2</td>
<td>8.8</td>
<td>2.1</td>
<td>1.59-2.72</td>
</tr>
<tr>
<td>5 servings of fruits &amp; vegetables ≤ 1x week</td>
<td>32.4</td>
<td>21.1</td>
<td>1.8</td>
<td>1.43-2.17</td>
</tr>
<tr>
<td>High-fat foods 6x week</td>
<td>15.5</td>
<td>11.9</td>
<td>1.3</td>
<td>1.01-1.73</td>
</tr>
<tr>
<td>Physical activity (30 min) ≤ 1x week</td>
<td>44.1</td>
<td>27.3</td>
<td>1.9</td>
<td>1.53-2.27</td>
</tr>
<tr>
<td>Specific exercise session ≤ 1x week</td>
<td>62.1</td>
<td>45.8</td>
<td>1.7</td>
<td>1.43-2.12</td>
</tr>
<tr>
<td>Smoking: yes</td>
<td>16.1</td>
<td>7.7</td>
<td>1.9</td>
<td>1.42-2.51</td>
</tr>
</tbody>
</table>

Egede LE, Ellis C. *Diabetes Res Clin Pract* 2010;87:302-12
Association with Diabetes Complications

Depression is associated with:

- Retinopathy (0.17)*
- Nephropathy (0.25)*
- Neuropathy (0.28)*
- Sexual dysfunction (0.32)*
- Macrovascular complications (0.20)*

(* Weighted R values)
### Association of Depression With Health Care Use

<table>
<thead>
<tr>
<th>Utilization Category</th>
<th>Depressed</th>
<th>Non-Depressed</th>
<th>$p^*$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>Mean utilization</td>
<td>$n$</td>
</tr>
<tr>
<td>Ambulatory visits</td>
<td>85</td>
<td>12</td>
<td>708</td>
</tr>
<tr>
<td>Emergency department visits</td>
<td>29</td>
<td>1</td>
<td>144</td>
</tr>
<tr>
<td>Hospital in-patient days</td>
<td>23</td>
<td>1</td>
<td>147</td>
</tr>
<tr>
<td>Prescription Medication Use</td>
<td>85</td>
<td>43</td>
<td>717</td>
</tr>
</tbody>
</table>

*p*-value for mean log 10-transformed utilization adjusted for age, gender, race/ethnicity, health insurance, and comorbidity.

Egede LE, Ellis C. *Diabetes Res Clin Pract* 2010;87:302-12
Depressive Symptoms

• Defined as symptoms not meeting Major Depressive Disorder (MDD)
• Criteria:
  – Depressed mood --Changes in sleep
  – Diminished interest --Feelings of worthlessness/excessive guilt
  – Lack of energy --Thoughts of death
  – Concentration difficulties --Changes in appetite/weight
• Common among people with diabetes
• Associated with poor self-care, complications and mortality

Gonzales et al. *Diabetes Care* 2011; 34: 236-239
Depression: Who to Screen

Routine screening recommended for persons with:

- Prediabetes (particularly overweight patients)
- Type 1 and/or type 2 diabetes
- Gestational diabetes
- Postpartum diabetes
Person-Centered Care Challenge

- List validated survey instruments that can be used to screen for depression.
- Identify the type of psychosocial therapy people with depression could receive.
Depression: Survey Instruments

- Patient Health Questionnaire (PHQ-9)
- Beck Depression Inventory II (BDI-II)
- Child Depression Inventory (CDI-2) in ages 7-17 years
- Geriatric Depression Scale (GDS) in ages 55-85 years
Referrals for treatment of depression should be made to mental health providers with experience in:

- Cognitive behavioral therapy
- Interpersonal therapy

Pharmacotherapy should also be considered if symptoms interfere with effective self-care behaviors. Referral to a psychiatrist familiar with diabetes is preferred.
Anxiety
Anxiety Common Disorders

- Generalized anxiety disorder (GAD)
- Body dysmorphic disorder
- Obsessive compulsive disorder (OCD)
- Specific phobias, particularly needle phobia and fear of hypoglycemia
- Posttraumatic stress disorder (PTSD)
Anxiety: Prevalence and Impact

- Lifetime prevalence of GAD to be 19.5% in people with either type 1 or type 2 diabetes
- Common diabetes-specific concerns:
  - Fears related to hyperglycemia
  - Not meeting blood glucose targets
  - Insulin injections
  - Infusion
  - Fear of hypoglycemia (FoH)
- General anxiety is a predictor of injection-related anxiety and FoH
Anxiety: Who to Screen

- Exhibiting anxiety or worries that interferes with self-management behaviors regarding:
  - Diabetes complications
  - Insulin injections or infusion
  - Taking medications
  - Hypoglycemia
- Express fear, dread, or irrational thoughts and/or show anxiety symptoms:
  - Avoidance behaviors (including medical care)
  - Excessive repetitive behaviors
  - Social withdrawal

Continued...
Anxiety: Who to Screen (Cont’d)

• Preoccupation with an imagined defect in appearance that interferes with social, occupational, or other areas of function - body dysmorphic disorder
• Exhibits excessive diabetes self-management behaviors to achieve glycemic targets, reports repetitive negative thoughts about inability to prevent poor health outcomes, and/or has related thoughts and behaviors that interfere with daily living – OCD
• Severe hypoglycemia - PTSD and PTSD-like and panic disorder symptoms
Anxiety: Survey Instruments

- State-Trait Anxiety Inventory (STAI) and for Children (STAIC)
- Beck Anxiety Inventory (BAI)
- Hypoglycemia Fear Survey – II (HFS-II)
- Children’s Hypoglycemia Index (CHI)
Anxiety: Referral and Treatment

- In hypoglycemic unawareness (can co-occur with fear of hypoglycemia)
  - Treat using Blood Glucose Awareness Training (BGAT) to help re-establish awareness and reduce fear

- In OCD
  - Referral to a mental health professional familiar with OCD treatment should be considered if diabetes re-education is not effective in reducing obsessive thoughts, behaviors, or feelings of general anxiety

- FoH without symptoms of hypoglycemia
  - A structured program (Blood Glucose Awareness Training) should be delivered in routine clinical practice to improve A1C, reduce the rate of severe hypoglycemia and restore hypoglycemia awareness
Disordered Eating Behavior
Disordered Eating: Behaviors and Impact

• In type 1 diabetes, insulin omission causing glycosuria in order to lose weight is the most commonly reported disordered eating behavior. People with type 2 diabetes treated with insulin, also frequently report intentional omission.

• In type 2 diabetes, bingeing (excessive food intake with an accompanying sense of loss of control) is most commonly reported.

• Persons with disordered eating, disrupted eating patterns, and eating disorders have higher rates of diabetes distress and FoH than those without these symptoms.
Disordered Eating: Who to Screen

- Unexplained hyperglycemia and weight loss, despite self-report of adherence to medical regimen including medication dosing and meal plan
- Self-report of excessive caloric restriction and/or excessive physical activity.
- Expression of significant dissatisfaction with body size, shape or weight.
- Report of loss of control over eating.
- Repeated unsuccessful dieting attempts.
Disordered Eating: Survey Instruments

- Eating Disorders Inventory-3 (EDI-3)
- Diabetes Eating Problems Survey (DEPS-R)
- Diabetes Treatment and Satiety Scale (DTSS-20)
Disordered Eating: Screening Considerations

• Potential confounders to the identification of symptoms are:
  – Behaviors prescribed as part of treatment (carbohydrate counting, calorie restriction)
  – Behaviors or effects e.g., loss of control over satiety regulation
  – Adverse effects of treatment, such as excessive hunger secondary to hypoglycemia
Disordered Eating: Screening Considerations (Cont’d)

• When evaluating symptoms, etiology and motivation for the behavior should be considered
  – Missed insulin injections due to suboptimal self-management differ significantly from intentional medication omission to produce weight loss

• Assessment and screening requires methods that account for:
  – Treatment prescription, regimen behaviors and diabetes-specific eating problems
Disordered Eating: Referral and Treatment

• Review of the medical regimen is recommended to identify potential treatment-related effects on hunger/caloric intake
• If night eating syndrome (recurrent eating at night) is diagnosed, changes to the medication regimen are required until maladaptive eating patterns are modified
• Adjunctive medication such as glucagon-like peptide 1 receptor agonists may help
  – Meet glycemic targets
  – Regulate hunger and food intake
  – Potential to reduce uncontrollable hunger
Disordered Eating: Referral and Treatment

- Bulimia, the most commonly reported symptom in persons with diabetes, should be evaluated in the context of treatment, especially insulin dose.
- If a diagnosis of Bulimia Nervosa is established via clinical interview by a qualified professional, use of anti-depressant and anti-anxiety medications is often effective when accompanied by psychotherapy.
- In severe cases of Bulimia or Anorexia, hospitalization may be necessary to stabilize diabetes and mental health.
Older Adults

- Older adults with diabetes:
  - 73% increased risk of all types of dementia
  - 56% increased risk of Alzheimer dementia
  - 127% increased risk of vascular dementia
- People ≥65 years of age should receive annual screening for mild cognitive impairment or dementia
- A collaborative care model should include structured nurse care management for treatment of comorbid depression
Bariatric Surgery

• Increased risk of:
  – Depression and other major psychiatric disorders
  – Body image disorders, sexual dysfunction and suicidal behavior

• People presenting for bariatric surgery should be assessed by a professional familiar with weight-loss interventions and post-bariatric surgery behavioral requirements.

• If psychopathology is evident (particularly suicidal ideation and/or significant depression), postponement of surgery should be considered until psychosocial issues are resolved or stabilized.

• Consider ongoing mental health services to help patients adjust post-surgery.
Summary

• Identified several pathways to integrate behavioral services into clinical practice

• Determined the high potential risk for psychological disorders in people with diabetes and described tools available to the provider for screening in the care setting

• Offered the provider appropriate referral and treatment options for people affected by these disorders.

• Presented a comprehensive summary of the 2016 Psychosocial position paper, and reviewed up to date terminology for care practices (person-centered) and “Person with diabetes” rather than “Patient”
Helpful Resources
Position Statement

Psychosocial Care for People With Diabetes: A Position Statement of the American Diabetes Association
Diabetes Care 2016 Dec; 39(12): 2126-2140

Authors

• Deborah Young-Hyman, PhD, NIH Office of Behavioral and Social Science Research
• Mary de Groot, PhD, Indiana University School of Medicine
• Felicia Hill-Briggs, PhD, ABPP, Johns Hopkins University School of Medicine
• Jeffrey S. Gonzalez, PhD, Yeshiva University and the Albert Einstein College of Medicine
• Korey Hood, PhD, Stanford University School of Medicine
• Mark Peyrot, PhD, Loyola University Maryland
Guidelines

- Full version
- Abridged version for PCPs
- Free app
- Pocket cards with key figures
- Free webcast for continuing education credit
- Position Statements

[Professional.Diabetes.org/SOC]
Professional Education

- Live programs
- Online self-assessment programs
- Online webcasts
- Online ADA Mental Health Provider directory

Professional.Diabetes.org/CE
Diabetes Self-Management Education

- Find a recognized Diabetes Self-Management and Support program service
- Become a recognized provider of DSME/S
- Tools and resources for DSME/S
- Online education documentation tools

Professional.Diabetes.org/ERP
Professional Membership

- Journals
- Meeting, book and journal discounts
- Career center
- Quarterly member newsletter

Professional.Diabetes.org/membership
Thank You!