Eating Disorders and Type 1 Diabetes: Strategies to Navigate This Perfect Storm

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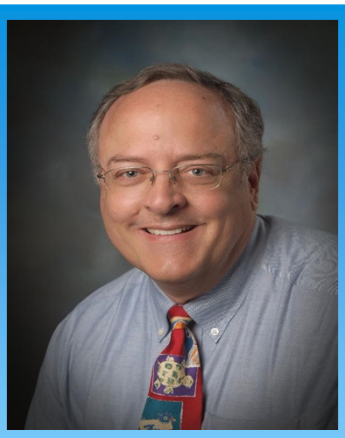
Center for Change
Orem, Utah



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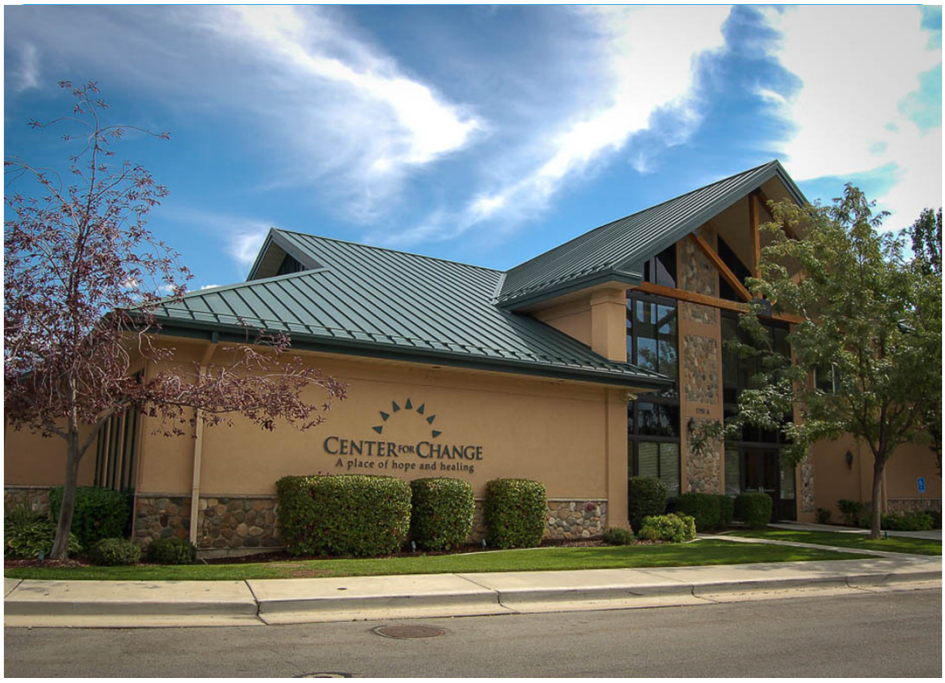
Disclosures

Speakers Bureau Novo Nordisk

Speakers Bureau AbbVie Inc.

Objectives

* Identify disordered eating behaviors reported by patients with type 1 diabetes mellitus
* Explain how eating disorders and disordered eating behaviors may be linked with type 1 diabetes mellitus
* List 3 components of the approach to treatment of patients with both eating disorders and type 1 diabetes mellitus


CENTER FOR CHANGE
A place of hope and healing


EDMUND FITZGERALD

Patient 1

* 45-year-old woman who was diagnosed with **type 1 diabetes mellitus** at age 2 years. "I have always been aware of what I am eating". In school, I "stuck out like a sore thumb". Admission hemoglobin A1C 6.5%.
* She had a **history of overweight** (height is 5 foot 7 inches (1.7 m) and weight 170 lbs. (77.3 kg) and BMI 26.6) in college and initially sought input from her endocrinologist.
* She reported **depressive symptoms** for most of her life, but treatment for depression began in college. She also endorsed **severe OCD symptoms**.

Assessments by the Center for Change Team

* Fear of how she compared with others and compulsive need to eat less or "safer" foods than anyone around her.
* Continued distorted perception of her body with need to lose weight or improve tone.
* Patient understands the skills to challenge these thoughts and is successful when coached.

In her own words…

"I hate my body"

"I've lost all the things that I used to like about my body, now I'm just flabby and fat."

"All I want to do is just go exercise and I can't"

Anorexia Nervosa and Type 1 Diabetes

Restricting Type with Excessive Exercise

Intense Fear of Weight Gain

Patient 2

* 21-year-old woman who was diagnosed with **type 1 diabetes at age 17 months**. Admission hemoglobin A1C was 7.8%.
* Recurrent DKA and recurrent episodes of severe hypoglycemia, including seizures. Hypoglycemia unawareness.
* 5 year history of **insulin refusal** and decreasing pump basal rates, while concurrently **binge eating** 5-6 hours each night and vomiting also each night. No use of diet pills, laxative or diuretics.
* Eventual use of an insulin pump allowed her to decrease her insulin doses markedly and provoke episodes of DKA more predictably than with injections.

Patient 2

* **Depressive symptoms** for three weeks prior to admission to the Center for Change, including **active suicidal ideation** with a preoccupation with death and dying.
* **Posttraumatic Stress Disorder**
* **Systemic Lupus Erythematosus**
* **Gluten Sensitivity**

In her own words…

"the needles . . . the shots . . . always gave me anxiety . . . I was not real compliant with the pin prick blood sugar checks."

"I began to notice that if I missed my insulin . . . I would lose weight . . . I liked that . . . pretty soon I was missing doses all the time . . . my hemoglobin A1C was about 11."

After her post-op sepsis and cardiac arrest, "I lost a ton of weight being in DKA . . . it was really great." She states, "In the back of my mind, I knew the DKA was awful, but I lost so much weight."

"Pretty soon, I learned to manipulate my insulin pump."

In her own words…

"I was in DKA every week. . . I would go to the local hospital emergency room on Fridays. . . in DKA. . . go to the pediatric ICU. . . stabilize over the next forty-eight-hours, and return to school on Mondays. That Friday, the cycle would repeat."

After admission to an inpatient eating disorders facility,
"Emotionally, I started having a total meltdown . . . I had conflicts with my parents . . . in the next two weeks, I increased my meal plan and insulin compliance . . . but the last week, I went back to my eating disorder. I had a nervous break down . . . I pulled out my hair . . . I stopped eating anything . . . I refused my insulin . . ."

Assessments by the Center for Change Team

* Patient states she realizes she's missing out on life and wants to return to school and move on with her life.
* In family therapy, patient shared several "secrets" with her mother, including a time she was raped and several times she's used drugs. Patient reported she is always drug seeking and trying to "numb out."
* Very challenging family therapy sessions
* Discharged after 3 week admission. Relapsed after 6 months and readmitted one year later.

Bulimia Nervosa

Sense of Loss of Control Over Eating
Recurrent Purging to Prevent Weight Gain
Self-induced vomiting
Misuse of Insulin (Omission/Restriction)
Fasting

Comorbid disorders… Major Depressive Disorder & Generalized Anxiety Disorder

Posttraumatic Stress Disorder

The Scope of the (Growing) Problem

* 37.9% of females (15.9% of males) age 12-21 with type 1 diabetes (T1DM) exhibit disordered eating behaviors (DEBs)
* Eating disorders (EDs) and DEBs may be more prevalent in individuals with T1DM compared to their peers without diabetes
* EDs and DEBs do not usually resolve without treatment

The Scope of the (Growing) Problem

* 32.4% of females with T1DM have some form of disordered eating or weight control behavior
* 36% reported intentional omission of insulin

Morbidities and Mortality of T1DM

magnified and *complicated* by the

Morbidities and Mortality of EDs and DEBs

… emergence of the perfect storm…

Why EDs and DEBs May Be Linked with T1DM

- Persistent Focus on Food (also makes detection of EDs and DEBs in this population more difficult). The loss of spontaneity with meals and snacks.
- Catabolic weight loss at clinical presentation of T1DM… then anabolic weight gain, including imprecise and imperfect insulin replacement likely to promote excessive weight gain
- Unrealistic metabolic goals (even unrealistic incremental improvements) are sometimes expected by both patients and providers (perfectionism)

Why EDs and DEBs May Be Linked with T1DM

* Effect of T1DM on self-concept, body image and family and peer interactions

Treatment Approach

* Multidisciplinary team with a "New Beginning" or "Fresh Start" philosophy
* Healing and Rebuilding (Recovery is a Process). Creating a nonjudgmental treatment relationship and celebrating small successes are essential
* In my mother's words, **"Watch Your Mouth!"**

Treatment Approach

- Diabetes Care Levels to ensure safe diabetes care during treatment (stepwise increases to higher levels based on patient's progress with self-care)
- Discontinue insulin pump, but continue CGM
- Recovery-directed eating (Intuitive Eating)… a challenge with T1DM

Conclusion

"My Personal Injection"

In her own words…

"I want to take a moment to thank you… for helping me make a significant change in my life. I should have sent you this a long time ago, but I'm stubborn and hard-headed.

I have made a lot of changes since leaving.

Not only do I owe you a "thank you", but I owe you and the staff an apology. I was in a downward spiral of self-hatred and self-pity. I was unwilling to admit that my life was out of my control. I was angry and unwilling to allow people to help me. I was emotionless, too weak to smile, too full of hate to love anyone especially myself and too numb to care.

Thank you does not begin to express how grateful I am to you and the program. I would not be where I am at today had I not been given a chance."

References

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