



Eating Disorders Can Mask Malnutrition

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We categorize eating disorders as mental illness, but they have very high medical seriousness as well, so that assessment and treatment require an integrated approach. Coordinating care for such complex cases can be done well but also can involve distinct hurdles for patients, families, caregivers, insurance companies and hospital systems.

Even the vocabulary can be problematic. One such example is “acute” level of care. The most medically severe or complex patient with an eating disorder may require medical stabilization at the “acute” level in a medical facility before he or she begins the psychiatric hospitalization, where the highest level of care also is termed “acute.”

The terms are the same, but there are distinct differences between medical acute units and psychiatric acute units — they use different arms of insurance and they typically are completely separate, even if the same health care system has both types of care available.

If a patient meets both medical and psychiatric “acute” criteria, he or she typically will complete medical acute care first and then transition to the psychiatric program specific to acute eating disorders. However, “acute eating disorder psychiatric” programs and “acute psychiatric” units denote completely different treatment settings. Typically, an “acute eating disorder psych” unit should be able to manage severe psychiatric concerns in eating disorder patients, but an “acute psych” unit often is not equipped to manage eating disorder patients.

OVERVIEW

Eating disorders can be very difficult to recognize and evaluate in terms of severity, impact and risks, especially since the effects of malnutrition are not

always readily discernible but can have severe medical implications. What’s more, the patient often experiences the eating disorder as a positive and helpful behavior — especially early in the illness — and may be reluctant to openly discuss it or accept support.

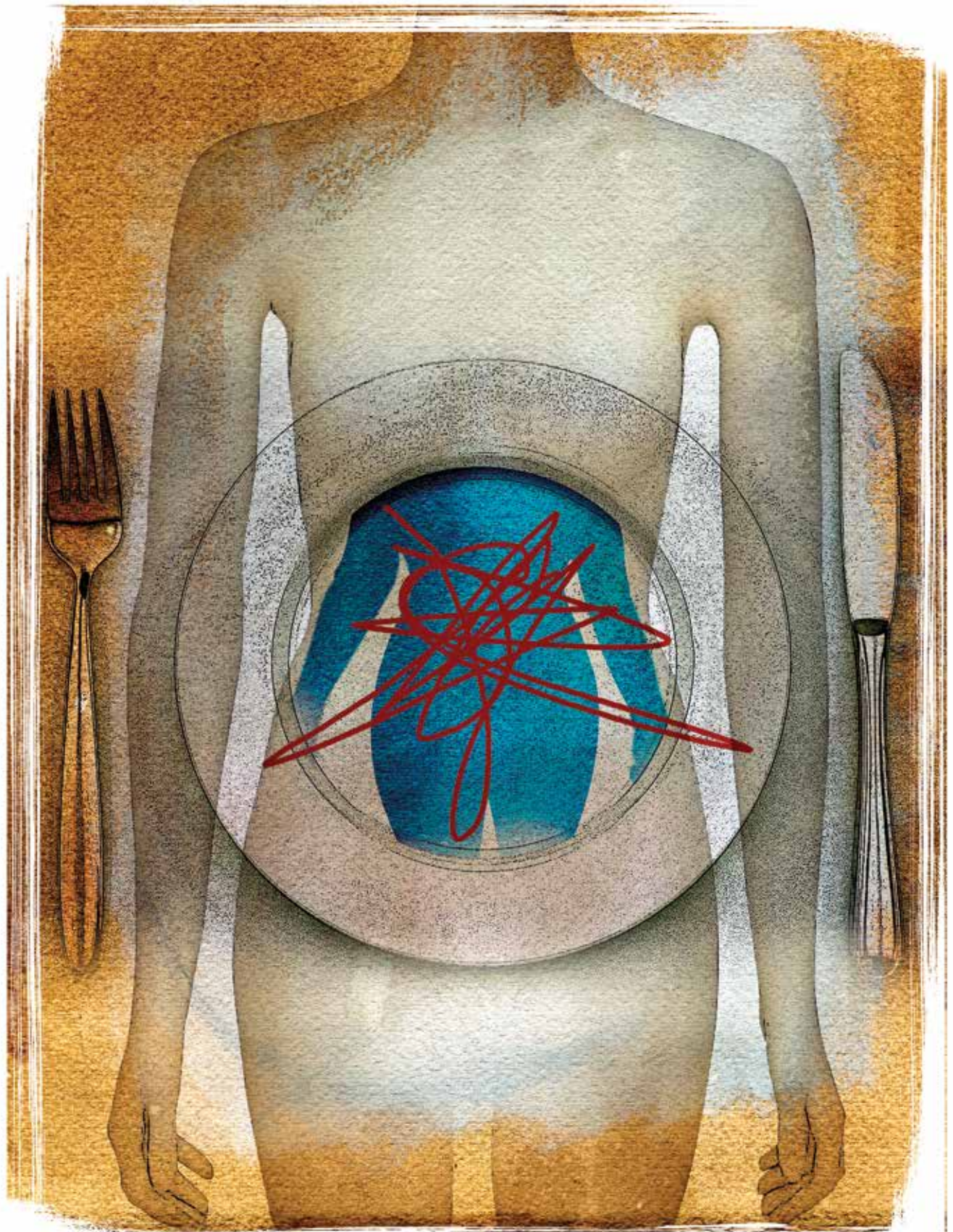
As a psychiatrist and medical director of an adult eating disorder program, I believe it is critical to improve awareness of these complex behaviors. With information, resources and tools for assessment and communication, we can help

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patients and their loved ones move closer to challenging their eating disorders and assist them in their journey to recovery.

The term “eating disorders” commonly evokes thoughts of anorexia nervosa and bulimia nervosa. People generally are aware that some patients display a combination of behaviors from both categories or may transition between different ones during the course of their illness.

However, we now recognize some important





details that once might have been overlooked during diagnoses and treatment. For example, a patient with an eating disorder might be at or above ideal body weight, rather than underweight. And even if body weight, screening blood work and physical exam studies don't show clear abnormalities, the patient nevertheless may be suffering from malnutrition.

As a psychiatrist, I am especially passionate in helping others learn how malnutrition impacts the brain and therefore impacts mood and emotions. Obviously, this article is specific to eating disorders, but malnutrition exists in many other populations: those who are impoverished, chronically mentally ill, chronic digestive illness, elderly, children with feeding disorders or "failure to thrive." We know it is important that children be nourished and rested for their learning and cognitive development; caring parents would not intentionally deprive their infants and children of key nutrients and then expect them to develop and perform optimally.

But we also receive so many confusing messages about what is healthy. Within the fields of medical research and training, previous research that resulted in guidelines and wide-flung public messaging has had to be re-evaluated and withdrawn or modified. We now know that whole foods include whole and naturally occurring fats that are critical for healthy development and that they maintain certain vitamins needed for medical and brain development. The onset of most eating disorders comes at an age when the brain and body are still in the process of key development and will be for many years. For decades, fats have been the bad guy of nutrition, but recently we have had a much needed shift in our dialogue, emphasizing the inclusion of fats for wellness across the lifespan, but especially during development, during reproductive years and during healing.

ANOREXIA NERVOSA

Anorexia nervosa generally refers to the disease in which patients greatly restrict their total caloric intake. Some may simply limit the calories they consume, but more often they also restrict food variety as well — developing ever-narrowing criteria for "safe foods" and ever-reducing volume, resulting in weight loss.

Patients also may compensate for eating by exercising — running or working out at the gym — or by constant movement — chores, taking the

stairs, walking the dog. They may abuse medications or supplements to give them energy or to reduce appetite, or they may eat or drink relatively large amounts of no- or low-calorie foods or fluids.

Atypical anorexia nervosa is the diagnosis for a patient who meets the anorexia nervosa diagnosis except for weight criteria. Some patients meet all the criteria for anorexia nervosa, but they also intermittently binge and purge food. These patients are diagnosed with anorexia nervosa, binge-purge subtype.

It isn't hard to recognize such behavior as excessive, unnecessary or unhealthy when an individual is underweight. But when someone is at or above normal weight, family, friends and clinicians can miss, excuse or accept explanations that the behaviors are lifestyle changes undertaken to become healthier.

There is a newer term, "orthorexia," that describes obsessive application of what the patient considers to be "healthy eating." The patient can be so dogmatic about restricting the diet to avoid "unhealthy" ingredients — no meat or fat or sugar, no artificial additives, for example — that it meets the criteria for an eating disorder. It is important to recognize orthorexia, because even though the patient is convinced the practice is healthy, such obsessively extreme dieting behavior can result in damage to the patient's heart, digestive system and mental health, regardless of starting weight or current weight.

BULIMIA NERVOSA

Bulimia nervosa describes disordered eating behavior in which patients, who at other times eat normally, have episodes with significant and out-of-control food intake — the binge — followed by an "undoing" behavior that most often is purging by vomiting, but could be purging by laxatives or purging by exercise. These patients may be at lower than normal weight, normal weight or above normal weight.

A related and recently coined word is "diabulimia." The term is controversial, as it is not a formally recognized diagnosis, but it describes an increasing number of patients with type 1 diabetes who skip or underuse their insulin in order to "purge" blood sugars through the kidneys and lose weight. It is a harmful practice that can cause permanent nerve and kidney damage, coma and death.

Binge-eating disorder describes binge intake of food without the compensatory behaviors — vomiting, laxatives, excessive exercise — to undo the food intake.

Across the spectrum of eating disorder diagnoses, there are several other common findings. Any patient may experience a few or many of these behaviors: obsessive drive for thinness; obsessive weighing, counting calories and/or logging other behaviors (number of steps per day, for example); perfectionism; anxiety; low self-esteem (often despite seemingly high accomplishment); distorted perception of the body; extreme beliefs around food; competitive behaviors around food, body or exercise; social anxiety; changes from previous personality.

Often, people with eating disorders will develop mechanisms to protect their eating disorders. They can minimize or rationalize concerns, isolate themselves to avoid attention and grow angry or irritable when confronted. Families and loved ones, as well as medical and mental health providers, can have a very difficult time breaking through these defenses despite close and caring relationships.

Persons with eating disorders also have a hard time asking for help, and when they try to ask for support or they return to truly healthier behaviors, they express feelings of anxiety or extreme guilt. They see their negative impact on others as causing conflict or worry, which can drive them to isolate further in order to protect their loved ones.

MEDICAL IMPACT

The medical impact of disordered eating is widespread throughout the body and varies greatly, depending on the individual's specific behaviors and specific vulnerabilities.

Let's be clear, however: There is reason, with treatment, for great hope — outside of specific injuries that can occur, the vast majority of malnutrition's impacts can and do heal, following full nutritional rehabilitation and sustained recovery.

That said, when the body is receiving limited nutritional intake, it has to prioritize how to use what it's getting and what it has in reserve to preserve required functions. Then it slows down everything that it can, as much as it can, trying to survive until the "famine" is over.

Every organ system and function in the body

can be affected by malnutrition, but the majority of patients will have symptoms only in a few systems. A great number of patients won't even recognize symptoms as abnormal or bothersome until they are again feeling better and come to realize, for example, that they no longer feel so dizzy, cold, lethargic or anxious, or that facial puffiness, brittle hair and nails and hair loss have improved.

Screening EKGs or lab studies typically will pick up only changes related to recent use of severe behaviors which drive fluid shifts (vomiting, laxatives, enemas, fluid loading) or severe restriction (driving ketones into the urine). Our amazing bodies compensate for the vast majority of chronic food behaviors and exercise behaviors, at least in ways we would find in common diagnostic blood work.

The Academy for Eating Disorders publishes an excellent, free guide to specific medical assessment of those with eating disorders.¹ One of the easiest, but most elucidating, assessment tools is the orthostatic blood pressure and pulse — very simply put, measuring a resting blood pressure and pulse, having the patient stand up, then re-measuring one minute after standing. The action of standing from rest is a very low stress in the nourished body, resulting usually in minimal change in measurements between rest and standing. In a malnourished body, one that has made

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adjustments to conserve as much fuel at rest as possible, the pulse may increase by more than 20 beats per minute and/or the blood pressure may fall. This simple test may help distinguish between someone who is physically fit and someone who is malnourished.

CHEMISTRY AND MENTAL HEALTH

Specific to mental health, let's look at the chemistry of depression and anxiety. This is a complex topic, but at the root there are very basic ideas in how nutrition provides the building blocks for



brain chemicals, and, therefore, how malnutrition steals these building blocks from the brain.

Our bodies take nutrients from food resources, break them down into basic building blocks and, driven by our genetics and our environment, use the building blocks to make up the needed proteins for ongoing function. In times of excess, our bodies can make whatever they like, store what they can and excrete what's left. In deprivation, our bodies make choices as needed for survival.

In the well-nourished body, we take in tyrosine and tryptophan from high quality protein resources. In the presence of dietary folate (which our bodies also put through a series of transitions), we eventually convert tyrosine and tryptophan into serotonin, dopamine and norepinephrine. If our bodies are stressed or deprived of nutritional resources, the body will have to choose to use its tyrosine and tryptophan for other purposes, ones more essential to survival. Indeed, women of normal weight who are dieting are shown to have measurable depletion of serotonin levels in the brain within one week of dieting behaviors. They may feel hungry and irritable/angry, “hangry.” It makes evolutionary sense — if you're hangry, you're more likely to go out and kill something so you can eat.

However, for eating-disordered persons who severely restrict food intake, or who are purging the nutrients they do take in, or who are stressing their bodies with compulsive exercises causing a deficit between energy in and energy out — their bodies are making compromised choices all the time as a matter of survival, and the individuals may experience new onset or worsening of depression or anxiety, driven by nutritional deficits.

Also, the medications used to treat depression and anxieties target the same brain chemicals — serotonin, dopamine and norepinephrine — so the medications the patient and provider would look to for treatment are rendered significantly less effective by the malnutrition.

There is a very appealing concept in the treatment of the complex presentation of eating disorder for a patient who also has depression or anxiety: Why don't we treat the depression or anxiety first, and once the patient is feeling better, then we can work on the nutrition? This sounds great, and treatment providers, families and patients would all love it if this approach was effective, but it is increasingly clear that in order to treat depression

or anxiety in a patient who is also malnourished, nutritional restoration is the primary treatment.

So, now that we've identified the eating disorder, discussed the seriousness and the need for nutritional restoration as a primary focus of treatment, how do we choose what treatment is best for our individual patient? A comprehensive resource is the clinical practice guideline for eating disorders by the American Psychiatric Association.² It's actually quite user friendly, and I encourage you to not be intimidated. It does help, though, to know what is being described by the terms for the various levels of care.

LEVELS OF INPATIENT CARE

Remembering these are different than medical acute units or general psychiatric units:

■ **Acute Eating Disorder Psychiatric** units provide the highest level of eating-disorder-specific, psychiatric care in a hospital-based program with nursing and medical/psychiatric staff, while also providing group, family, individual and nutritional therapies.

■ **Residential Treatment Center** is the next level of inpatient care. Residential programs do not have the same degree of hospital safety requirements as an acute level of care, and therefore they have more variability in where programs are located physically (hospital campuses, renovated residential neighborhoods), and they may be directed by therapy staff rather than medical staff. Patients reside at the program 24/7, and the program always should have staff present. Programming in groups, individual, family sessions and nutritional therapies also should occur for several hours most days of the week; usually some food “exposures” off campus are integrated as the patient works toward higher autonomy.

■ **Partial Hospitalization Program (PHP)** level of care is the highest outpatient level of care, but if geographically distant from the patient's home, he or she may attend a PHP with housing available. Therapies continue similar to the previous levels, typically for fewer hours or days per week and with greater expectations of patient independence.

■ **Intensive Outpatient Programs** are a step between PHP and general outpatient care. They include some group and meal support a few hours a day and a few days per week, in addition to individual appointments with therapist dietitians and medical providers (psychiatry, medical or mid-

level medical providers).

■ Finally, there are a handful of **Independent Living** arrangements, facilities that are recovery homes for patients who are in early recovery from eating disorders. They live together while transitioning to the full outpatient setting, receiving support through the community of other patients.

Most treatment sites offer some, but not all, levels of care; many treatment centers are privately owned, most accept health insurance, and a growing but limited number have beds for male patients. My own program, Laureate, is a not-for-profit center and hospital that has psychiatric acute, residential, and partial services for women and girls. The independent living home called Magnolia House is available to adult women who have completed treatment at the higher levels but need additional support before they transition to outpatient care in their home area. Part of Saint Francis Health System, Laureate is a freestanding facility on its own campus, but it is located close to its parent medical center, which allows co-management and consultation for more medically complex patients.

CONCLUSION

Drawing both from the literature and from my professional experience, here are some factors that may improve long-term recovery from eating disorders:

■ **Early and sustained treatment** with a full team of providers (medical provider, therapist and dietitian) who specialize in eating disorders or who are well informed about eating disorders.

It is paramount for a patient to complete weight restoration and complete each level of care in conjunction with the treatment team recommendation, rather than stepping down early or skipping care levels.

It is important to sustain weight restoration and to identify relapse early, with escalation in level of care to interrupt decline sooner if a relapse does occur.

Involvement of loved ones for accountability and emotional support is very important in sustaining recovery. Therapists can help provide a lot of support and guidance for how families and loved ones can communicate in order to better provide and accept support. This is a hard thing to do, and it often works better when a patient has

someone helping along the way.

When patients complete more intensive levels of work, they often wish to rush back into their lives, be it work, academics, athletics, etc. We often discuss and encourage the practice of fitting one's life back into recovery — rather than recovery back into life — and layering on additional activities. For example, starting with part-time school or work, then full time, then an extracurricular activity, etc.

Patients benefit from finding value and self-worth outside of the eating disorder. They also benefit by practicing self-compassion — otherwise known as the application of grace.

Recovery is work and requires a great deal of time, effort, energy and commitment; it's easy to lose track when rushing back to everything else too quickly. There also are good studies showing that returning to physical activities that were previously part of the eating disorder (especially cardiovascular exercise) increases the risk of relapse.

■ **Not to be overlooked:** Patients benefit from finding value and self-worth outside of the eating disorder. They also benefit by practicing self-compassion — otherwise known as the application of grace.

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NOTES

1. Academy for Eating Disorders, *Eating Disorders: A Guide to Medical Care*, 3rd edition, 2016. https://higherlogicdownload.s3.amazonaws.com/AEDWEB/05656ea0-59c9-4dd4-b832-07a3fea58f4c/UploadedImages/Learn/AED-Medical-Care-Guidelines_English_02_28_17_NEW.pdf.
2. American Psychiatric Association, *Practice Guideline for the Treatment of Patients With Eating Disorders*, 3rd edition, 2010. http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/eatingdisorders.pdf.

JOURNAL OF THE CATHOLIC HEALTH ASSOCIATION OF THE UNITED STATES

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