Life on the Brink: Anorexia nervosa and lethality

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la-shell_johnson@med.unc.edu: Good afternoon, everyone. I'd like to go ahead and start today's webinar titled, "Life on the Brink: Anorexia Nervosa and Lethality." A few things to note, participants will be muted upon entry, and videos turned off. For technical assistance, we ask that you use the chat box located at the bottom of your screen.

la-shell_johnson@med.unc.edu: You will also receive an email approximately one month, request and feedback and impact on today's presentation. Also, immediately following the webinar, you will receive an email with today's slides and an evaluation form.

la-shell_johnson@med.unc.edu: We also ask that you visit us at www.nceedus.org/training to view other training opportunities that NCEED provides. As a reminder, this training will be recorded and available via the NCEED Training Center one week from today. We will reserve ten minutes after the presentation for question and answers.

la-shell_johnson@med.unc.edu: I'll now introduce today's speaker, Dr. Tonya Foreman.

la-shell_johnson@med.unc.edu: Dr. Foreman graduated from the University of Kentucky College of Medicine. She did an adult psychiatry residency at Vanderbilt University, a child and adolescent psychiatry fellowship at the University of Florida, and a forensic psychiatry fellowship at Yale University. She has been on the medical school faculties at Tulane University, University of Louisville, Indiana University, and is currently a professor of Clinical Psychiatry at the University of North Carolina at Chapel Hill.

la-shell_johnson@med.unc.edu: She has won numerous awards, including the Ginsburg Fellowship from the Group for the Advancement of Psychiatry and the Rappeport Fellowship from the American Academy of Psychiatry and the Law. I'll now turn things over to Dr. Tonya Foreman.

Tonya Foreman: Hi, there! I was asked to give a talk about suicide and anorexia, but I realized that it's extremely difficult to separate the suicidality from the mood symptoms that are often part of anorexia nervosa. This is also complicated by the fact that we might have serious concerns about a patient's risk of dying from medical complications from their anorexia nervosa. But the patient doesn't appreciate the risk of death. Therefore I have included lethality in the talk rather than just anorexia and suicide.

Tonya Foreman: This talk is geared primarily toward primary care clinicians and mental health care clinicians. I hope it will be clinically useful, as well as provide evidence-based interventions for treating depression and suicidality in patients with anorexia nervosa.

Tonya Foreman: So here's a roadmap of what we will discuss.

Tonya Foreman: We'll review the diagnostic criteria for anorexia nervosa, as well as statistics regarding suicide and anorexia nervosa. We will talk about the emotional consequences of starvation as demonstrated in the Minnesota Starvation study. We'll take a look at a sample case. We will talk about the Connecticut statute regarding involuntary hospitalization. We will identify various levels of treatment and pros and cons of each, and we will review symptoms, including suicidal ideation that can occur as an exacerbation of eating disorder treatment.

Tonya Foreman: We'll also review management strategies for distress reduction during treatment. We'll review evidence-based medication management strategies and we will review evidence regarding ECT, TMS, and ketamine in patients with anorexia. And finally, I'll describe severe and enduring anorexia nervosa, and discuss the controversy surrounding the appropriateness of palliative care or hospice, or medical aid in dying for some individuals.

Tonya Foreman: Here's a quick review of the DSM V criteria for anorexia nervosa restriction of food relative to the requirements leading to a significantly low body weight for age, sex, developmental trajectory, and physical health. The person must have an intense fear of gaining weight or becoming fat, even though they are underweight, and there is a disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape, on self-evaluation, or denial of the seriousness of the current low body weight. You might recall that previous versions of the DSM V require that the patient be less than eighty-five percent of ideal body weight, and have amenorrhea to qualify for a diagnosis of anorexia nervosa. But, those requirements are no longer present.

Tonya Foreman: Suicide is the second most common cause of death in people with anorexia nervosa. The first most common cause is medical complications from the anorexia itself.

Tonya Foreman: Multiple studies find high rates of suicide in patients with anorexia nervosa. Suicide is estimated to be the cause of nearly half the deaths in people with anorexia nervosa, and approximately 17% percent of people with anorexia attempt suicide at some point.

Tonya Foreman: Patients with binge behavior as part of their anorexia are more likely to attempt suicide. Suicide attempts in patients with anorexia nervosa were also associated with substance abuse,

impulsivity, cluster B personality disorder traits, panic disorder, post-traumatic stress disorder, as well as eating disorder severity. Suicide attempts are more common in patients with bulimia nervosa, but completed suicide rates are higher in anorexia. This is a little bit counterintuitive, but that's what I found in the literature.

Tonya Foreman: Depression can precede the eating disorder, co-occur with it, or be secondary to it, and suicidal ideation can occur at any time. Certainly there are patients from whom the anorexia and mood symptoms are separate. Not everybody with anorexia is depressed.

Tonya Foreman: Sometimes, when you take a patient's history, it's clear that the episodes of depression predated, or are separate and distinct from the anorexia. But, for many patients it becomes a chicken or the egg question. The evolution of the mood symptoms, suicidality, and anorexia are intertwined. Starvation itself can cause mood, changes, and impulsivity. Don't underestimate the physiological mood changes that can occur in patients with eating disorders.

Tonya Foreman: I want to introduce you to the Minnesota Starvation Study. The information from this study provided much provides much of what we know about the physiological consequences of starvation. The investigator on the study was Dr. Ansel Keys, and it occurred during World War II in 1945.

Tonya Foreman: The participants in the study were thirty-six men, all of whom were conscientious objectors during the war.

Tonya Foreman: They weren't draft dodgers. They were men who generally, for religious reasons, didn't want to fight in combat, but they wanted to do something to contribute to the war effort. So they enrolled in this study to learn more about the effects of starvation. The study was a yearlong, and included six months of partial starvation.

Tonya Foreman: These are the participants, their average age is twenty-five. Their average height was five feet ten inches tall, and their average weight was one hundred and fifty two pounds. It just happened that the weight it was slightly leaner for their height than the population at large that wasn't by design. It just turned out that this was a pretty, lean group of men. None of them had a premorbid eating disorder. So the outline of the study is that there were three-months of starvation, during which each man was brought to his normal way for his height. A goal of this period was to determine the number of calories necessary for weight maintenance given a constant activity level, so they all had to walk like twenty two miles a week, or something; quite a bit of physical activity. Another goal was to establish baseline values for the various tests that were performed during the subsequent phases.

Tonya Foreman: After the control phase there were six months of semi-starvation each man's diet was cut roughly in half, with the ultimate goal of approximately twenty five percent total body weight loss.

Tonya Foreman: Dr. Keys didn't believe that the 25% weight loss would cause overly serious health consequences. But he thought it would be significant enough to produce measurable biological and emotional changes for the study. And then the final three months were a rehabilitation period, with subjects broken into subgroups to test recovery diets containing different amounts of calorie proteins and vitamins. He thought this would be helpful during the massive relief effort that was anticipated at the end of the war, and basically he wanted to find out whether there was an optimal refeeding diet for a starved person.

Tonya Foreman: The participants were subjected to many medical and psychological evaluations during the study. They had blood tests, urine tests, semen analysis, and X-rays. They also took psychological tests, including the newly developed MMPI or Minnesota Multiphasic Personality Inventory. They did treadmill tests to the point of exhaustion.

Tonya Foreman: The goal was for each participant to lose approximately two and a half pounds per week. The amount of food each man received, depended on how he was progressing toward his weekly weight loss goal. In order to lose approximately two and a half pounds a week, per week, or twenty five percent of the total body weight in six months, participants were fed approximately one thousand five hundred and sixty calories per day. This number is shocking to me. If you think about many common weight loss diets now, people eat far fewer than one thousand five hundred calories a day,

Tonya Foreman: But one thousand five hundred and sixty calories in this study was enough to cause negative physical and emotional consequences for participants. In our current diet culture, we have completely lost sight of how damaging it is to restrict calories, yet people continue to do it in the name of health.

Tonya Foreman: We don't have time to review all the findings from the study. But I do want to talk about some of the emotional effects of starvation. What we learn from the Minnesota Multiphasic and from the Minnesota starvation study is that many of the participants develop similar emotional responses to what we see in patients with anorexia nervosa.

Tonya Foreman: Subjects reported decreased ambition and social motivation, they had difficulty making decisions, they were irritable. Participants in this study reported decreased libido and decreased interest in dating. They had nightmares. One man even dreamed about cannibalism.

Tonya Foreman: This is a dexterity test. During the starvation phase, cognitive abilities decreased. People had poor concentration. They had more trouble sitting through required classes. When they repeated the MMPI, most of the study participants had higher deviations on the neurotic scale after six months of starvation than they did at the beginning of the study.

Tonya Foreman: They had low mood. They were obsessed with food, and found little joy in anything else.

Tonya Foreman: This is Sam Legg, one of the participants in this study. As the study progressed he demonstrated increasingly unusual behavior. He started collecting cookbooks and reading recipes. He stared at pictures of food with pornographic interest. He was agitated in the meal lines. When a cafeteria worker dropped a serving spoon and had to go back to the kitchen to get another one, Legg started smashing his tray on the counter and swearing. He had previously been an unofficial leader of the group, and the other participants became worried about his deterioration. At meal time Legg combined all the food on his plate into a pile. He then put so much salt and pepper on it that it was crusty with seasoning, and ate it.

Tonya Foreman: Here's Mr. Legg again; at one point in the study he dropped a car on his hand while he pretended to do some maintenance, and he crushed a finger. Doctors were suspicious, but allowed him to remain in the study.

Tonya Foreman: He also befriended some elderly women during one of his required walks, and he went to visit them one day while they were eating. He couldn't eat the meal, but he enjoyed the company. So he hung out in the yard for a while. While they ate, he went outside to chop wood. He was chopping wood, and her people laughing and scraping their plates inside. He imagined slicing through meat as he chopped through wood. He put his left hand on the flat top of the log and cut off three of his fingers.

Tonya Foreman: Ansel Keys went to see Mr. Legg in the hospital to kick him out of the study, but Mr. Legg begged to stay in the study and said, “keep me in for the hungry. For the rest of my life people were going to ask me what I did during the war. This experiment is my chance to give an honorable answer to the question.” So he was allowed to remain in the study. When asked later whether the incident had been an accident or not, Legg said that he could not say that it was, and he could not say that it was not.

Tonya Foreman: If you're interested in learning more about the Minnesota Starvation Study, I highly recommend this book, [The Great Starvation Experiment by Todd Tucker] it's well-researched, it has a lot of colorful details, it reads like a novel, and it was the source for much of the information that I just presented about the Minnesota Starvation study. Risk evaluation of patients with anorexia nervosa is

more difficult than other risk assessments, because the eating disorder itself creates a wild card. As evidenced by Mr. Legg cutting off his fingers, I've seen many patients with eating disorders who are so consumed by their anorexia that they're unreasonable. As a clinician, it's important to keep in mind that a patient who previously has been reliable, predictable, and compliant, might become more dangerous to themselves when they're in the throes of anorexia nervosa.

Tonya Foreman: Anorexia is a disease of shame and secrecy. Therefore don't assume that patients with anorexia will tell you the extent of their eating disorder behaviors, or the extent of potential suicidal radiation, particularly if a patient is quite a low body weight, where they have lost a precipitous amount of weight in a short period of time their reports about their behaviors or their mental state become increasingly unreliable.

Tonya Foreman: Let's take a look at this case study. Annie is a twenty-two year old cis female, with a BMI of 12. She has a history of anorexia nervosa, and has previously required inpatient hospitalization for bradycardia. She has lost thirty pounds in the last two months. She comes to see you for a refill on her birth control pills. Annie's mother accompanies her to the appointment, and voices concern that Annie's "anorexia is out of control again." Annie reports that she is depressed and feels hopeless. She's been isolating herself in her room, and only comes out to exercise. She says she's not actively suicidal, but she doesn't see the point of living. She says she doesn't care if she doesn't wake up tomorrow. On exam, Annie has a heart rate of 35 and a blood pressure of 86/42. She admits that she has only consumed a glass of water and a boiled egg in the last twenty four hours. When you suggest that she needs inpatient treatment, Annie becomes angry and says, "I'm not going, and there's nothing you can do about it. I'll kill myself if you try to make me fat."

Tonya Foreman: What are your options as a clinician? Obviously, this is a complicated case with many nuances, and there's not necessarily a right or wrong answer. But let's consider some of the options.

Tonya Foreman: One possible option is to send Annie to the emergency department for medical evaluation. However, if she goes to the ED, they might send her away, because they might not realize the severity of the eating disorder, or if her labs are normal, they might not realize how potentially ill she is.

Tonya Foreman: Let's take a quick little detour to talk about the potential medical lethality in a patient like Annie, and what might happen if you send her to the ED. First, let's talk about the bradycardia. Here's why bradycardia is worrisome in a patient like this. Patients with extremely low heart rates are at risk to develop aberrant heart rhythms, especially at night, when the heart rate is likely to go down anyway. My rule of thumb is that any patient with anorexia and a pulse of forty or less needs to be on telemetry for at least a few days. If they can't be on telemetry, I want them to be evaluated by cardiologists who's willing to sign off that they're stable not to be on telemetry. Sometimes, though,

bradycardia in these patients gets dismissed as oh, they're just an athlete. Here's a way to help determine if the bradycardia is secondary to a highly conditioned heart, like you would see in an athlete.

Tonya Foreman: It's true that some athletes have low heart rates when that athlete walks across the room, or does mild physical movement, their heart rate doesn't increase much because their heart is extremely efficient. Someone with bradycardia secondary to anorexia, however, might have bradycardia while sitting, but their heart rate would be likely to jump twenty or thirty, or even forty points when they do something as simple as walk across the room. This is because their heart is deconditioned.

Tonya Foreman: It is bradying down to try to preserve precious energy, but when a small demand is placed on the body, the heart has to race to catch up, to send blood throughout the body. But sometimes clinicians erroneously attribute the positional change in pulse to dehydration. But it is often because of cardiac deconditioning. Another consideration is that aggressive fluid resuscitation in this type of patient is dangerous because they can't handle rapidly increased volume. Another consideration is that people can be extremely ill with anorexia, and have completely normal labs. In fact, abnormal labs are probably the exception rather than the rule.

Tonya Foreman: If someone is purging, they're more likely to have hypokalemia or hyperamylasemia. But for someone who only restricts, their labs are likely to be completely normal, and then this can confound the difficulty of getting them admitted from the emergency department.

Tonya Foreman: A potential con of sending her to the ED is that if the ED doesn't admit her, it could undermine your efforts to get her to understand the potential lethality of her eating disorder, it would address your duty to get her treatment, but it might kind of undermine the relationship. That's probably not a reason not to send her to the ED if that's what you think needs to happen. But it can certainly be a negative outcome if Annie doesn't get admitted, and I've had many patients tell me they went to the emergency room and were told they're fine, and they can go home. This can be very dangerous in a patient who might be medically precarious secondary to her eating disorder, or in the person whose mental status and mood might worsen secondary to her severe anorexia nervosa.

Tonya Foreman: Well, can you hospitalize Annie involuntarily? This is an area of a lot of confusion, and the answer is. Yes, this is the Connecticut involuntary commitment statute, and it permits the involuntary commitment of people with psychiatric illness who are either dangerous to themselves or others, or gravely disabled. A gravely disabled person is defined as someone who may suffer serious harm because he fails to provide for his basic human needs and refuses to accept necessary hospitalization. So eating disorder would fit under that.

Tonya Foreman: So, even if the person with anorexia nervosa does not endorse active suicidal ideation. You can involuntarily hospitalize them under the Connecticut statute.

Tonya Foreman: I practice in North Carolina and our law is similar and I've successfully involuntary hospitalized patients for anorexia nervosa here. Sometimes the judge or magistrate ultimately allows that patient to leave the hospital before I think they're ready, but sometimes they don't, and I feel like I've done my duty by exercising the right to involuntary hospitalize somebody whose judgment is grossly impaired, secondary to their anorexia nervosa.

Tonya Foreman: So let's talk about some of the, uh levels of care that people with anorexia nervosa can have. First, there's inpatient treatment; inpatient treatment might occur on a medical or pediatric unit, a general psychiatric unit, or a specialty eating disorder unit.

Tonya Foreman: Residential treatment is probably not appropriate for someone who is acutely suicidal unless it's a locked facility compliant with JCAHO requirements regarding ligatures and other safety hazards. Some residential treatment programs are secure in that way, but many are not. Many residential treatment programs are in homes or in more cozy structures, and those places would not be appropriate for somebody who's acutely suicidal.

Tonya Foreman: Then these are some alternatives to 24/7 treatment. However, in the case of somebody who is medically unstable or acutely suicidal, they wouldn't be appropriate, but I included this slide so you'd be familiar with the terms. PHP or partial hospitalization program is basically day treatment where patients go to the treatment facility for six or more hours a day.

Tonya Foreman: Intensive outpatient programs or IOP, usually meet three or more days per week, often in the evenings for just a few hours, and a benefit of IOP is that often patients can continue to go to school or work while they go to IOP. But again, this wouldn't be appropriate for someone who is suicidal or medically unstable.

Tonya Foreman: And then, finally, there's outpatient treatment.

Tonya Foreman: So I want to acknowledge that often we place patients on certain types of units, because there's no alternative. In addition, many of the issues facing a patient with life-threatening anorexia nervosa or suicidal ideation straddle the line between medicine and psychiatry. So as I talk about levels of care and monitoring, the type of patient I have in mind is someone whose anorexia puts their life at risk due to active or passive suicidality or impaired judgment secondary to the anorexia

itself, or someone with potentially life-threatening medical complications of the anorexia nervosa itself and this type of patient doesn't fit neatly on a medical or psychiatric binary.

Tonya Foreman: So, going back to the inpatient levels of care and the potentially suicidal patient with anorexia nervosa, let's think about the type of monitoring that's available at various levels of care on different units.

Tonya Foreman: First, there's an inpatient, medical or a pediatric unit. Hospitalization on an inpatient medical or peds unit would generally have a patient in a traditional hospital room, and rooms on medical or peds floors are not locked. They're not secure against suicide risks, and they don't provide the safety that a suicidal patient needs. Therefore they would have to be on 1:1.

Tonya Foreman: So what are the potential benefits of inpatient medical/pediatric hospitalization for a patient like Annie?

Tonya Foreman: First, sometimes this is the unit that is clearly necessary for someone who is medically unstable, and no other unit would be appropriate, because the patient might need IV fluids, telemetry, or IV electrolyte repletion. In addition, access to specialty medical or even surgical consultation can occur easily. From a medical or a pediatric unit, there should be easy access to STAT labs, X-rays, other imaging, and other diagnostic procedures

Tonya Foreman: Access to that type of service can often be limited in non-medical settings. Another potential benefit of hospitalizing a patient like Annie on a medical unit, is that it might be easier to persuade her to be admitted to a medical unit than to a psychiatric unit. If she's having GI or other physical complaints that need additional diagnostic testing, it might be easier to persuade her to be admitted to medicine while a work-up or stabilization occurs.

Tonya Foreman: What are the potential limitations of medical or pediatric hospitalization?

Tonya Foreman: One potential limitation is that the staff on these units might not have much experience treating eating disorders and it's easy to say something that is well-meaning, but is triggering for patients. So, for example, most patients would be pleased to be told that they look healthier today, however, for a patient with anorexia nervosa, they would automatically think you look fat if a patient tells them they look better.

Tonya Foreman: One-to-one sitters often have no mental health experience, and they're not likely to have eating disorder experience. In some facilities, the 1:1 literally is just a person that sits by the patient to make sure they don't attempt suicide or elope. The 1:1 might not feel or be empowered to intervene if a patient purges or exercises. They're not likely to be trained to provide meal coaching. They're unlikely to detect more subtle eating disorder behaviors such as smearing food or hiding food. The 1:1 probably won't be able to do narrative documentation that reflects eating disorder behaviors so the clinician will be able to collect quality data about real time behaviors.

Tonya Foreman: Since 1:1 usually have no eating disorder experience, they might engage in inappropriate food talk. For example, the sitter might make comments about dieting or exercise. It might allow the patient to watch inappropriate programs such as The Biggest Loser. They might not intervene if the patient accesses inappropriate social media sites, such as pro-ANA or pro-MIA sites. If you're not familiar with pro-ANA or pro-MIA sites, they are websites that glamorize eating disorders. And basically people go there to praise each other or to seek advice about how to have a worse eating disorder.

Tonya Foreman: They're really horrifying sites. Other potential limitations of med or peds units. Typically, these units don't offer group or individual psychotherapy. Some hospital units, especially peds units, have excellent eating disorder protocols, but others don't.

Tonya Foreman: It might be challenging on some of these units even to get daily weights, much less blinded, gowned, post-void weights. The unit dietitian might not know how to help a patient with an eating disorder develop a meal plan and make food selections. The patient is unlikely to receive psychoeducation about the eating disorder, or have an idea about what treatment beyond the hospital could entail.

Tonya Foreman: Case Managers on general, medical or pediatric units are unlikely to be familiar with aftercare resources for patients with anorexia nervosa. Having family members at the bedside can be helpful or detrimental, depending on the situation. If the family has enabled the eating disorder, or is highly enmeshed with the patient having them at the bedside can present challenges.

Tonya Foreman: I remember transferring a woman in her twenties to our eating disorder unit from the medical floor. When I went to visit her on the medical floor, her mother was literally sleeping in the hospital bed with her.

Tonya Foreman: So if hospitalization on a medical or pediatric unit is not indicated, what are the pros and cons of hospitalizing a patient like Annie on a general psychiatric unit? On the plus side, psychiatric units are designed to provide an environment that protects patients with suicidal ideation. Staff are trained to watch for potentially dangerous behaviors, the doors are usually locked, belongings are searched, and visitors are monitored. There's less probability of having contraband on the unit. However, I will tell you an anecdote on the unit where I work, which is a specialized psychiatric eating disorder unit in a hospital, people can occasionally seek in contraband, even though all the belongings are checked.

Tonya Foreman: One time the friend of a patient on our unit stuffed laxatives inside a teddy bear, and sent the bear to the hospital as a gift. Unwittingly the patient's mother delivered the bear, and we let the patient have there. Little did we know that we had just given her dozens of laxative pills.

Tonya Foreman: Another potential benefit of being on a general psychiatric unit is that involuntary hospitalization procedures can be implemented easily if needed.

Tonya Foreman: There are challenges to be on a psychiatric unit, though. First, whether we like to admit it or not, there is a stigma associated with psychiatric units. I've known many patients who could more easily accept

Tonya Foreman: I'm sorry, many parents who could more easily accept, that their child has a serious gastrointestinal condition that requires hospitalization on a pediatric unit, than to accept that their child has an eating disorder, a psychiatric condition.

Tonya Foreman: Psychiatric units are scary. If you haven't been on one in a while, they are not warm and fuzzy. As increased safeguards are put in place to prevent suicide in the hospital psychiatric units have become even less hospitable. The furniture is institutional, minimal decorations are allowed, and activities that could be good coping strategies often have to be limited due to safety concerns.

Tonya Foreman: For example, psychiatric patients might only be allowed to use the flexible safety pens that are um often given to prison inmates, and I say to ends. I don't mean like clipping pins. I mean like drawing pens. They're the flexible ones that are really difficult to use.

Tonya Foreman: Craft Supplies are limited, due to the risks from scissors, paints, and glue. Access to fresh air in nature is likely to be quite limited. Visitors are often restricted, and general psychiatric units typically have a mixed milieu of patients with an assortment of psychiatric illnesses. It can be frightening to be on a unit with a person who is acutely managed for having a psychotic episode.

Tonya Foreman: Other patients who don't understand eating disorders may make comments that are triggering. For example, they might say something like hide a body like yours I wouldn't be suicidal. Diet talk or comments about bodies might occur. Other patients might speculate about medications causing weight gain commonly prescribed. Activities to promote a healthy lifestyle can be triggering for patients with eating disorders. For example, if a group leader in a general psychiatric unit encourages patients to exercise more, or cut back on sweets that can unwittingly reinforce the eating disorder.

Tonya Foreman: A big challenge on general psychiatric units is that NG tubes might not be allowed. Therefore there's little recourse when a patient is refusing to eat or not eating enough, unless that patient becomes medically unstable enough to have to be transferred to a medical or a pediatric unit.

Tonya Foreman: What are some of the potential challenges of treating a patient on a dedicated eating disorder unit? First, there's the possibility of contagion.

Tonya Foreman: I think I missed one, the potential benefits of being on a specialized eating disorder unit.

Tonya Foreman: There are clearly some benefits. There are trained staff who are familiar with how to monitor and support patients with eating disorders. There should be protocols in place to provide medically safe nutritional rehab.

Tonya Foreman: There should also be protocols for how to do the vital signs and the weight, so the patients don't see their weights. Staff can provide meal support and monitor for eating disorder behaviors. Bathroom support can be provided to prevent purging. Accurate bowel movement records can be kept to try to reduce laxative seeking behavior, and a dedicated dietitian can provide specialized meal plans and education for patients and their families.

Tonya Foreman: However, there are challenges even of being on a specialized eating disorder unit. The first one there's the possibility of contagion and competition. Anorexia nervosa thrives on comparison, and every name of admission to an eating disorder unit creates a cascade of emotions in all the patients already on the unit. Patients inevitably, inevitably believe they are the biggest patient on the unit. They might feel unworthy of treatment. They might want to compete, to be the sickest, or to do their eating disorder well enough to have medical complications. If Ng tubes are used, patients might see the NG tube as a sign of success in having an eating disorder that made them sick enough to need a tube.

Tonya Foreman: Chronicity is another issue. Patients who are repeatedly hospitalized or hospitalized for long periods of time in eating disorder settings can become more attached to their eating disorders. It can become their identity.

Tonya Foreman: Eating disorders also become normalized as patients are surrounded by other people with eating disorders. Some patients become developmentally stunted and lose sight of goals, hobbies, friendships, and other relationships, because they're living in an environment where it seems like everybody has an eating disorder.

Tonya Foreman: Okay, So what is the perfect environment?

Tonya Foreman: Obviously there's not one. And often you won't have the luxury of choosing the type of unit where your patient receives treatment. That can be dictated by the medical condition, insurance, considerations, bed availability, and the types of units available in your area. But what I've tried to outline for you is some of the challenges and benefits that can occur with various treatment options for patients with anorexia nervosa, who are at risk of death from medical or psychiatric consequences of their illness.

Tonya Foreman: So what happens when our patient with severe anorexia nervosa and active or passive suicidal ideation, receives treatment at some higher level of care? What is likely to happen?

Tonya Foreman: The patient's distress is likely to increase.

Tonya Foreman: What was that? The patient's distress is likely to increase.

Tonya Foreman: Eating disorders are unlike nearly all conditions you'll treat because the patient is likely to feel ambivalent at best about recovering.

Tonya Foreman: When a patient comes to see you with a broken leg, you and the patient will be on the same page about the desired outcome. You both want the patient's leg to be repaired, and for the patient to recover. If a patient comes to you with a headache, you and the patient will want the headache to go away.

Tonya Foreman: The patient with anorexia has worked hard to become so ill. Their illness might feel like an achievement; recovery from the eating disorder might feel like a loss. They truly might not have the energy to be invested in living and planning for a future.

Tonya Foreman: Eating disorders are maladaptive coping mechanisms for sure, but they can provide some temporary distress reduction for patients. When you put that patient in an environment in which they can't act on their eating disorder behaviors, their emotional distress is going to increase.

Tonya Foreman: I often use the analogy of a balloon with a patient. If you squeeze on a balloon and compress part of it, it splooges out in other directions. If we squeeze on a patient's eating disorder by not letting them do the eating disorder behaviors, other impulses are likely to splooge out. For example, if a person is in treatment and is making a concerted effort to reduce eating disorder behaviors, the urge to use substances, self-injure, or to consider suicide is likely to increase.

Tonya Foreman: So you think it's done a great thing by getting our hypothetical patient to a safe level of care, and now the patient feels worse.

Tonya Foreman: What now?

Tonya Foreman: But I can't condense everything that happens in treatment into a few slides, but I want to try to distill some of the key features of treatment first. Here's the best medication:

Tonya Foreman: Food is the best medicine to treat anorexia nervosa, and ultimately to treat the suicidal ideation that can accompany it.

Tonya Foreman: As we learn from the Minnesota Starvation Study, low mood and impulsivity can occur secondary to starvation. Often a person's mood improves substantially once they are better nourished.

Tonya Foreman: That doesn't mean that the patient does not report feeling physically and emotionally miserable in the process, but the low mood that comes secondary to starvation needs to be treated with food and with a tincture of time.

Tonya Foreman: Next, treatment. Distress reduction and coping skills. A common type of therapy, and one that is often used in treating eating disorders as well as for patients who are suicidal is DBT. DBT

stands for dialectical behavioral therapy, and it's a form of cognitive behavioral therapy designed for people who have intense emotional reactions. DBT has four main tenants. They are mindfulness, interpersonal effectiveness, distress tolerance, and emotion regulation. Coping skills: developing coping skills is a core tenant for DBT and it's beyond the scope of this talk to do a deeper dive into them. But I do recommend trying to familiarize yourself with the terminology used in DBT because it will help your patients if you speak the language they are learning in therapy. You can reinforce and validate what they're learning as part of their treatment.

Tonya Foreman: Much of the work of overcoming an eating disorder, and this often applies for mood disorders as well, is replacing maladaptive coping skills with less destructive ones. For most patients that doesn't feel like good news at first when patients are into stress. They understandably want something that feels one hundred percent effective and works immediately. But that's not how coping skills work unfortunately.

Tonya Foreman: The cornerstone of eating disorder treatment, as well as treatment for depression and anxiety, is helping the patient learn to tolerate distress.

Tonya Foreman: Often when we encourage patients to use coping skills, they say I've tried them all, and they don't work.

Tonya Foreman: I tell patients that coping skills are like muscles, the more they use them, the stronger they become. We can all learn to use certain behaviors or cognitive reframing techniques to reduce our distress.

Tonya Foreman: I don't want to live any more, meds and therapy aren't working. This sometimes feels like the story of my life is a psychiatrist working in inpatient and residential eating disorder settings. People come in for treatment, they can't engage in their eating disorder behaviors while in treatment. So they're distressed and potentially their suicidal ideation go up. Suddenly, they feel like they're aren’t working. I try to prepare patients for this phenomenon that the message often doesn't penetrate.

Tonya Foreman: Patients feel the stress and hope understandably that a medication adjustment will make them feel better. Their distress is real. Our ability to reduce that distress with medications is limited.

Tonya Foreman: So what is the role for medications? There's definitely a role for meds in treating many of the disorders that are comorbid with eating disorders. However, there are no specific medications approved to treat anorexia nervosa itself. We obviously have many meds that can treat depression

though, and I'm going to go through some medications and talk about how they might be helpful or worrisome choices to use in a person with severe anorexia nervosa and suicidality.

Tonya Foreman: Does that patient have the building blocks? One question that often arises is, will meds even be effective in someone who is extremely low body weight. Do they even have enough tryptophan, a precursor to serotonin to make and modulate neurotransmitters?

Tonya Foreman: There was a study by Barbarich to look at whether adding Tryptophan and other nutritional supplements help increase the effect of fluoxetine in severely malnourished patients. The study did not demonstrate a benefit to adding Tryptophan and other supplements.

Tonya Foreman: So here's some practical advice that I use in in decision making about whether and when to start medications, if you're going to the beach, wear a swimsuit.

Tonya Foreman: If the patient has long-standing mood, symptoms or if the mood symptoms predated, the eating disorder I go ahead and add a medication to target mood sooner rather than later, since it takes several weeks for most antidepressants to start working.

Tonya Foreman: If I think we're going to end up needing an antidepressant anyway, I'd rather go ahead and start it sooner rather than wait. Since there's no magic indicator of when a patient's nutrition might be adequate to make the medication helpful. I'd rather have it on board anyway, if I feel certain that it will be needed.

Tonya Foreman: If the mood symptoms had their onset around the same time as the eating disorder, or seem clearly secondary to the eating disorder, then I hold off on adding medication to see how the mood changes with weight and nutritional restoration. One caveat is that in extremely malnourished patients with electrolyte abnormalities, QTC prolongation, or other medical issues, I usually don't start a medical ah medication until the medical issues have been stabilized.

Tonya Foreman: As you know, SSRI's and SNRI's are the main stay of treatment for depression.

Tonya Foreman: There is a black box warning, as you know, regarding treatment emergent suicidality, so it's important to assess for suicidal ideation before starting medication, and then make sure the patient will notify you if suicidal ideation develops while on the meds. But I think it's important not to

undertreat mood symptoms for fear of precipitating suicidal ideation and SSRI’s and SNRI’s are logical first choice.

Tonya Foreman: I don't have a favorite SSRI or SNRI. If compliance is an issue I like fluoxetine due to its long half-life. With all the others, I make a point of emphasizing the importance of medication compliance. SSRI and SNRI withdrawal is probably under recognized as a significant cause of physical and emotional distress. Missing even one dose of some of these meds can make people feel physically or emotionally terrible.

Tonya Foreman: So I make a big point to tell people never to run out of these meds and not to miss doses. Mirtazapine is another antidepressant, commonly used to treat depression in patients with eating disorders. I like to use mirtazapine because it can help patients sleep.

Tonya Foreman: It can cause increased appetite, and that can be a good thing or a bad thing.

Tonya Foreman: I don't ever try to trick patients by giving a med that's likely to make them hungry, and remember that anorexia is not fundamentally a disorder of appetite, even if medication increases hunger patients with anorexia are likely to restrict anyway we're going to consider mirtazapine,

Tonya Foreman: I do try to be honest with a patient that it might affect their appetite. So, I'd rather have them buy in and have a conversation with me then go look it up on the internet and decide that I've tried to trick them.

Tonya Foreman: And remember there is a black box warning regarding using Bupropion on patients with eating disorders due to risk of seizures.

Tonya Foreman: Lithium: Lithium has been demonstrated to reduce suicidal ideation. However, I would use lithium with extreme caution in a patient with suicidal ideation and anorexia nervous. Lithium toxicity could easily occur in the face of dehydration that might accompany anorexia. Lithium requires blood level monitoring, and it can affect thyroid and renal function. I rarely start patients with severe anorexia nervosa.

Tonya Foreman: Atypical antipsychotics can be an appealing choice to help patients with symptoms and anorexia nervosa because they often increase appetite and lead to weight gain. The literature is inconclusive regarding the benefits of atypical antipsychotics in patients with anorexia in reducing

cognitive activity and eating disorder cognitions. I often see olanzapine being used in eating disorder patients, and sometimes I do like to use it to help sleep, and the severe anxiety associated with severe anorexia. But I would view its use as short term. I'd see quite a few patients who were put on olanzapine, and then gained a lot of weight, and that triggered another round of severe restricting.

Tonya Foreman: Aripiprazole: In this study by to Tahillioglu, the BMI and core eating disorder cognitions improved in patients with anorexia taking aripiprazole, but depressive symptoms did not.

Tonya Foreman: I do use quite a bit of aripiprazole, all at a very low dose, for example, two milligrams to reduce rigid eating disorder cognition, but the literature doesn't currently support it's used to treat depression, specifically in patients with anorexia nervosa academically.

Tonya Foreman: Ketamine: There's not time to go into this study by Keeler in detail. But just know that ketamine can be helpful to provide rapid treatment of depression and amelioration of suicidal ideation, and ketamine is being specifically studied in patients with anorexia nervosa.

Tonya Foreman: ECT: There's a study by Shilton, et al that shows that ECT is safe and well tolerated in anorexia nervosa with severe comorbid treatment, treatment resistant major depressive disorder, and or suicidal risk. TMS: This analysis by Morais showed mixed results with TMS and anorexia nervosa.

Tonya Foreman: So, let's shift gears now to talk about something very sobering. We are all dedicated to preventing suicide. However, in the eating disorder community we are starting to talk about when or if it's appropriate to declare that treatment is unlikely to be helpful.

Tonya Foreman: At what point do we allow someone to succumb to anorexia?

Tonya Foreman: Is that suicide, or is it a natural progression of the illness? I'd like to introduce the term severe and enduring anorexia nervosa, and I didn't make up this term. This is a term that's used in eating disorder treatment communities. There's no clear consensus on what severe and enduring anorexia is.

Tonya Foreman: We know that approximately a quarter of patients with anorexia do not recover or go into sustained remission. If you work with patients with eating disorders, you're likely to encounter patients who have severe and enduring anorexia nervosa. However, figuring out how to manage their care is difficult. We've talked about involuntary hospitalization in patients with severe eating disorders.

Tonya Foreman: But what about the patient who's been severely ill for years. The patient is not actively suicidal, but they continue to engage in behaviors that place them at chronic risk of sudden death. These patients might or might not have the insight into the lethal potential for their illness. What do you do with these type of patients?

Tonya Foreman: So here are some factors to consider when making the severe and enduring anorexia diagnosis. Obviously, a person has to have had anorexia for multiple years in order to be diagnosed. But how many years? There's no consensus. Is it five years, ten years, fifteen years? What if there's been a period of remission followed by a relapse, does that improve the prognosis?

Tonya Foreman: The age of the patient is crucial before making the diagnosis. We know that brains are still developing into a person's twenties, and if the patient's eating disorder had its onset during their teens, it likely affected their developmental trajectory. In addition, they would have been malnourished during adolescence, and they might need additional years to catch up developmentally, both physiologically and psychologically. Loosely, I've heard experts suggest that thirty years old is the youngest that someone should ever be considered to have severe and during anorexia nervosa.

Tonya Foreman: And finally, it's important that someone has undergone full weight restoration probably more than once, in order to be classified as having severe and enduring anorexia nervosa. Cognitions and mood often don't improve until a person is fully weight restored, and has lived in a weight restored body for months. Even though a person might have been to inpatient or have residential treatment several times if they left treatment, or were forced to leave treatment due to insurance deauthorization before they were fully weight restored, they did not have the opportunity to do some physical and emotional healing that can only occur with full weight restoration. So I would not consider that to have severe and enduring anorexia nervosa.

Tonya Foreman: So here's a spectrum of attitudes regarding treatment for this type of patient. And first, I am not here to promote any particular approach.

Tonya Foreman: I just want to introduce you to the discussions that are happening among eating disorder professionals. Incidentally, as you probably know, similar discussions are happening with regard to suicide in general. We've moved away from saying that someone committed suicide in favor of saying that somebody died by suicide. This shift in terminology reflects our understanding that sometimes in some circumstances suicide is a natural outcome of long-standing emotional or physical pain.

Tonya Foreman: If we think of eating disorder treatment, viewpoints fall on a spectrum with the most conservative opinion being that forced treatment is always the right thing to do. Even if someone has had treatment numerous times and says they don't want to undergo treatment again, people in the

forced treatment camp would still advocate for the patient to be involuntarily hospitalized, tube fed, and forced to undergo treatment.

Tonya Foreman: A more moderate approach might be a harm reduction model in which the patient might not be maintaining the weight that you believe to be optimal, but you agree to continue to work with them, and not force treatment unless their weight or medical condition falls below certain thresholds. Heading to the right end of our Bell Curve would be people who believe that palliative care and even hospice can be appropriate for certain patients with anorexia nervosa. Under this model, the patient would be given supportive treatment or comfort measures, but they would not be forced to undergo eating disorder-specific treatment, even if their weight or medical status falls below a certain threshold. And then, finally, some people advocate the option of medical aid in dying or MAID.

Tonya Foreman: I want to make you aware of a bombshell paper that was published earlier this year, and in this paper Gaudiani and Jaeger point out that, “the majority of potentially terminally illnesses carry with them softly considered an evidence-based staging criteria that allow patients and clinicians to distinguish mild and likely curable presentations of the disease from irreversible, pre-terminal and terminal stages.” That's not the case in anorexia nervosa. The authors point out that we don't expect people with stage four cancer to continue treatment that comes with high mobility, with high morbidity. If that person decides they are ready to stop treatment.

Tonya Foreman: That is historically, not in the case with eating disorders. In Gaudiani's highly controversial paper, she and the other authors argue that medical assistance in dying should be offered to some patients with severe and enduring anorexia nervosa.

Tonya Foreman: At a certain point, is it inappropriate for us to continue to force treatment on patients eating disorder professionals are trying to figure out how to provide treatment that respects a patient's autonomy, even if it means that the person is likely to die?

Tonya Foreman: Gaudiani's paper has caused some shockwaves in the eating disorder treatment community, and I'm going to put a couple of references for rebuttal papers at the end of my slides. So you can take a look at those.

Tonya Foreman: Should we ever allow someone to succumb to anorexia nervosa? This is a topic that's difficult to, to discuss, and it tends to bring up a lot of emotions for people. But I put it in this presentation so you would be aware of the ethical issues that people in the eating, disorder treatment community are having when we consider eating disorders and lethality.

Tonya Foreman: I was tempted to try to find a nice, tidy way to wrap up this talk and put a happy spin on it. Humor is one of my favorite defense mechanisms, but I just couldn't find a way to end on a light note.

Tonya Foreman: Thank you for taking care of patients with eating disorders, thank you for trying to prevent suicide and death in this population, and thank you for your attention. I am happy to answer questions now.

la-shell_johnson@med.unc.edu: Thank you so much for this wonderful talk, but I also wanted to share that this presentation was done in collaboration with the HUB Behavioral Health Action Organization for Southwest Connecticut. Now go ahead and open up for questions that we received in the Q and A box.

Tonya Foreman: Any unanswered question will still be taken, and will be sent via email with responses one week from today by Dr. Foreman.

la-shell_johnson@med.unc.edu: The first question reads: Can the same clinical interventions benefit involuntary cancer anorexic cachexic patients?

Tonya Foreman: Do you repeat the question? Can the same clinical interventions benefit involuntary cancer anorexic cachexic patients?

Tonya Foreman: I'm not sure, I understand.

Tonya Foreman: I think the person may be wondering about somebody who has cachexia as a result of cancer or some other similar illness. That's a really good question, uh. And in fact, I was just had a conversation today with one of our consult liaison psychiatrists about how they handle that when somebody has a terrible illness and just develops failure to thrive.

Tonya Foreman: I'm not going to give an answer to that question, because I don't live in the CL world, and so I don't know if they ever use the involuntary hospitalization statute. I think, in order to use it, you would have to make an argument that the person has a mental illness, and perhaps in that case you could say that the person has severe depression that is making them unwilling to eat or continue to engage in treatment, but it gets very, very dicey. I'm fortunate to work in a, a big hospital where we can call it ethicists, and get consultation from um a lot of people to help us when things get really sticky like that. But do remember, though, that, that involuntary hospitalization statute is for mental illnesses.

Tonya Foreman: Thank you so much, Dr. Foreman. And then they asked, “can you spell the websites mentioned that are horrific in regards to glamorizing anorexia?”

Tonya Foreman: It's that's a good question. You know what they, the words that I use were pro-ana. So some people call anorexia, ANA, almost to personalize it like a person, or pro-mia like bulimia. Um, so if you put in on your search, pro-ana, or pro-mia, you will come up with sites. I haven't done it in years because I don't want to get cookies on my computer, and I don't want to get um linked to all of those things. So it's been a number of years since I've gone on them. But the kind of things that people will post, they're like little bulletin boards where somebody may go on and say, you know, ‘here's a trick for how you can eat less’, ‘put mustard in your water and drink it,’ or you know, ‘wear plastic wrapped around you when you go work out.’ Or you know, ‘put salt on your apples.’

Tonya Foreman: All kinds of things, and if you work with patients with eating disorders, you will know that there are countless tricks and methods that they use in order to try to further their eating disorder. Um. So one thing I do with patients at some point in treatment is usually talk to them about their social media and find out if they have been going to pro-ana or mia sites, or if they are following influencers who have eating disorders, or who glamorize um emaciated bodies.

Tonya Foreman: If, if, so, I encourage a bother and treatment, maybe with the support of a therapist, to delete those things from their social media feeds, because the last thing you want is for them to leave treatment and go start scrolling TikTok, or Instagram, and see all of those potentially triggering images come up. Similarly sometimes patients themselves have posted images of themselves and emaciated bodies, and maybe they got a lot of positive comments for them. And so you just want to try to help anticipate with patients things that may be triggering in the future, so that they are not blindsided.

la-shell_johnson@med.unc.edu: Thank you so much, Dr. Foreman and I'll go ahead and address one more question. Can you discuss your thoughts on the intersection between your talk and the recent position paper of terminal anorexia as a classification?

Tonya Foreman: The paper was important, because I think it advances the conversation. Um, that we do need to start thinking about how to offer dignity and work with patients who have severe and enduring anorexia, but maybe are not motivated to uh to continue to try to work toward recovery. I think there were some problems with the paper, though in that they might not have picked the best cases to use. To argue that there is such a thing as terminal anorexia. One of the authors of the paper was a patient of Dr. Gaudiani’s, who did end up dying from anorexia.

Tonya Foreman: They were together pursuing the medication-assisted death. I think they even had the medication, but the patient ended up dying before taking it so she didn't actually take the pills to die. But the patient felt so strongly that people should have access to it, that she was a posthumous author on the paper. But I think that case in particular um, that was met with a lot of scrutiny, because, you could argue that she had never had full treatment. Um, I'm not sure she had ever been fully weight restored. I think there were questions that maybe she hadn't had a full trial of multiple antidepressants and different medications. So unfortunately, I think that the um, the ah cases that they chose kind of produce some very easy criticism for their paper, and that may have not fostered the important conversations that we need to continue to have about whether there is terminal anorexia.

la-shell_johnson@med.unc.edu: Thank you so much, Dr. Foreman. Um, we have run out of time and I do have unanswered questions that are still here in the Q and A box. What I will remind you is that we will send responses to your questions one week from today, and this presentation reporting will be available via the NCEED Training center. You also receive the link to that training recording once it is available. Thank you so much for joining today's presentation.

la-shell_johnson@med.unc.edu: Well thank you for your time and for sharing your welcome knowledge. Thank you all for coming today.

Tonya Foreman: Thank you all.