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TRANSCRIPT - GR 03 03 23 "First Aid for Eating Disorders: Recognition and Triage for Internists" Susan Gray, MD, from the University of Virginia

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Medicine Grand Rounds

All right, everyone. We're gonna go ahead and get started with our grand rounds today. We're delighted to host 2 speakers, Dr. Susan Gray and Dr. Laura Shaper, both from the Department of Pediatrics, who will be giving what will be surely amount to a phenomenal talk today. Dr. Gray completed her undergraduate studies at Yale University, where she received a Bachelors of Arts in French.

- Following her time at Yale, she completed her medical degree here in Charlottesville, at the University of Virginia, and notably received the Mohan Society fourth year teaching award.
- She then headed north to Boston, where she completed her residency and fellowship, training
- and pediatrics and adolescent Medicine at Boston Medical Center and Boston Children's Hospital.
- Following completion of her training, she remained in Boston for the subsequent 13 years, where she was an attending physician at Boston Children's Hospital, with appointments at multiple other institutions. She returned to Uba in 2,019, and is the division head of the division of General Pediatrics and adolescent medicine.
- Dr. Shaper completed her undergraduate studies at Duke University, where she graduated with distinction and received a Bachelor of Arts in psychology
- she subsequently competed her, completed her Phd. In clinical child Psychology at the University of Denver.
- Following completion of her doctorate degree, she then came back to the East Coast
- and completed an internship in pediatric psychology at Children's National Medical Center, followed by a post doctoral fellowship at the National Institute of Child Health
- and Human Development.
- Dr. Shaper was in on faculty at the University of Louisville School of Medicine, but came to Uva in May 2,015, where she is a professor of pediatrics and the chief of the section of pediatric psychology.
- Dr. Gray and Dr. Shafer will be speaking on the topic of eating disorders, and how we interface with patients suffering from this pathology as internness. Please join me in welcoming Dr. Gray and Dr. Schaefer.
- Thank you

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so we are going to talk to you today about eating disorders and what you all, as a primary care folks can be looking for. And and when you have these patients present in your practice.

- maybe I can advance some slides. Okay. And we there we don't have any disclosures.

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00:29:55

But, alas! The last that disclosures. If anyone would like to pay us for anything or give us any wanna start just by recognizing to that, this is the timely talk. So this is national eating disorder Awareness week. This is our fabulous social worker, Dr. Sierra Graft Stevens, who provides therapy and the eating disorders program in teen health, and she and Dr. Gray have both been doing their part in and doing media spots this week, and on our national eating disorders. Awareness week.

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00:30:28

Thank you for that. In our time this afternoon we're going to step through and some information about the prevalence of eating disorders. We'll review the eating disorder diagnoses as well before we get into prevalence, Describe eating disorder, behaviors and signs and symptoms you all can be looking for and then describe some treatment, options and evidence based care. Just wanted to make a side note before we really get into the material that eating disorders are really fairly common. Dr. Gray is gonna talk about prevalence. So chances are, you know, someone with an eating disorder, with disorder and eating, or that you yourself off the have disordered eating. And so if your this is raising concerns as we talk about some of this, so you're saying, hey, that look, that sounds familiar. Maybe I'm worried about this person just wanna highlight our resources here at Uba. We have feed. You can contact for help. You can talk the resonance room can talk with your program directors, or you could talk with your primary care Physician. So if any of this is kind of hitting home or striking a nerve. Please reach out and get some help alright so I'm gonna go over diagnoses before Dr. Gray losses in the prevalence and just want to point out a little bit of history. Here there's been an evolution, and how we diagnose, and how we conceptualize eating disorders. And so I'm a psychologist. So I'm going to the Dsm. For my diagnostic conceptualization and diagnosis, and medically we use that, too, and even eating disorders. So you see this evolution from the Dsm. 3, where we were talking about anorexia bulimia purging a rumination. And then Eden OS eating disorders on, otherwise specified really so more of a focus kind of on these 2 anorexia and bulimia that extended into Dsm. 4 and then. Now with Dsm. 5, you see the purging and r the rumination coming back in. And so in Dsm. 5. It's really a broader category of eating and feeding disorders. Most of what we'll talk about today will will pertain to anorexia. And so what to Bulimia? I also want to spend a little bit of time talking about these other

eating and feeding disorders, too, because you may be seeing those in your practice. So what are those diagnoses that we Haven't.

- Dsm: 5. So anorexia nervous. There are 2 subtypes of that, and I will go into more detail about these and then coming slides, but restricting type, and Benjamin, or purging type, Believe me, and Herosa Benjeting disorder is a new addition, and Dsm. 5.
- Our fed or avoided restrictive food and take disorder is new to Dsm. 5 pic a rumination. Now or are in this category, and then other specified feeding or eating disorders, which are presentations that are characteristic of a feeding or eating disorder. But Don't quite need full diagnostic criteria. Right? So an example would be a typical anorexia where someone has the the restricting and body distortions and fiat bodies, morph and fears of gaining weight, but they're at a normal or above normal weight instead of at a dangerously low weight. That would be an other specified feeding or eating disorder, unspecified feeding, or eating disorders are presentations that are characteristic of disorder, eating or feeding problems. But they don't meet full diagnostic criteria and either the clinician chooses not to say why they don't meet, or there's not enough information really, to make up a specific diagnosis.
- Alright, so let's talk about anorexia a quick review. So anorexia is, and I know there's a lot of information on these slides. But I really like these breakdowns and put these in here more for you to have for future reference. So I'm not going to go over every bit of information on here, but wanted you to have it so. Anorexia is the restriction of energy, and take relative to what the requirements are for someone to maintain a healthy body weight, and so that the restriction leads to a significantly low body weight. Excuse me and the context of their age, sex, developmental trajectory, and physical health. So you've got the significantly in the body weight. You've got the calorie restriction. An important piece of this is the fear of gaining weight and behaviors, the and fewer behaviors that interfere
- with weight gainer management. Or actually you've got those behaviors that go with the fear. And then there's an over evaluation of body, weight, and shape. So if any of you have worked with these patients, and it's really pretty striking. I think, about one of my, you know patients who sit there, and they're just like tiny and skeletal, and they're sitting here like squeezing everything they can squeeze to show you how fat they are, and the body fat that they have, and that's a real perception for them, right? They really do see their bodies as larger in a different shape than others are seeing them most common onset and adolescent young adults. This is more common, and children well, the increase, I'm sorry it's not more common in children, I mean there's an increase in prevalence and children and males, and it's more common in females than males. And then we're going to go over some of the medical some signs on symptoms. Later lot of psychological, psychosocial comorbidities. With this disorder bulimia is characterized by the combination of our current binge episodes and compensatory behaviors where people are trying to expunge those calories, so they access calories they've taken in. So a binge episode is eating a discrete in a discreet period of time eating more a greater amount of food than most people would eat in that same period of time, or under those circumstances, Thanksgiving dinner doesn't count. That's like normative, and everybody is eating too much, so it's not officially avenge.
- And then the other piece that has to be present for something to be categorized as a binge episode is a lot is loss of control. This feeling of loss of control over You're eating compens

story. Behaviors can be anything from self, a new vomiting misuse of laxatives or diuretics, or other medications, excessive exercise so those are.

- It's more common on girls and boys just like Anorexia, and the onset also is tends to be an adolescence for young adulthood.
- Been cheating disorder out something. Okay, Benjamin. Disorder is, as I was saying, a new one for Dsm. 5. And so this is characterized by recurrent Binge eating episodes accompanied by distress related to those. But you, Don't, have the comp compensatory strategies that you have with Bulimia.
- also more common, and females and males sub-clinical bins or loss of control eating is more common, and then full on vent eating disorder. And this is, we see this more often at people with obesity.
- Our food you think about like really, really, Picky, eating to the point of where it's a dangerous from a danger from a nutritional standpoint. So people are highly, highly selective, and in their eating, and they're failing to eat to meet their nutritional and energy needs. Because of that the avoidance and restriction of food in our food is not related to a fear of gating weight or a distortion and body perception it can be due to either sensory concerns and the foods aversive and uncomfortable, unpleasant for people to eat. Sometimes you can see a conditioned folks, maybe, who've had a choking episode. And now I've associated have a fear tied to eating.
- So there's usually some other reason people are uncomfortable eating. It's not related to that body, perception, or fear of gaining weight, and this is more common in voice than in girls. And then we see this a lot in in young children and adolescents.
- alright, some of the other feeding, and any disorders already mentioned at a typical anorexia.
- But believe me intervention with low frequency or limited duration, right so to to be diagnosed with bulimia, you have to have the binge purge cycles at least on average once a week for 3 months or longer. And so if someone doesn't meet that once a week, or it's not been 3 months, you can still given, and other feeding and eating disorder diagnosis. Similarly with Benjamin, they just don't meet the time. Criteria purging disorder would be purging behaviors without the benches and night eating disorders. When people are having excess of calories after their evening meal, or they're waking in the middle of the night and eating rumination is a disorder where people are vomiting, but it's not self, and induce they regret the recurrence of the food after they've beaten, and this happens at least once a month, and it could either be spit out, reach you'd be swallowed right? They're a lot. Yeah, if people are making faces without that, You see that that happen where but they're not appearing to make it. It seems like they're not making an effort to do this it's something that's just happening.
- Pika is eating non-nutritive substances on a regular basis. Essentially orthorexia is not actually not an official eating disorder diagnosis, but we wanted to put it in here because it's something that is out on social media. A lot more, and you may have people coming into your practice asking about it but it's not an in the Dsm. Or a diagnosis we would make is a coin term to the late nineties, and it's really an obsession with healthful eating. So it's people who are so focused on reading labels and restricting the kinds of foods they eat for health reasons that they are not meeting their nutritional needs. And there's debate about. You know we're still learning about this? There's debate about. Is this a some type of anorexia? Is this the form of Ocd like? What is this really?

- Alright, let me pause there. Questions about any of the diagnoses or eating disorders.
- I'm not seeing any come online either. Not yet. All right. Hand it over to Dr. Gray.
- And so one of the things I always like to say when I talk to groups outside pediatrics is, Send us people. Don't realize adolescent medicine is a thing it's a thing we can do. A fellowship in. I like to call us the geriatrics of pediatrics, and you're all invited. If you're interested in eating disorders, if you're interested in Denver, how, if you're interested in
- I'm the Medical director of the Tina Young Adult Health Center, and we do take a lot of trainees for electives who are not peed. So we take family medicine, emergency medicine, psychiatry. We're popular. So you have to let us know in advance. But if this is interesting to you, come talk to me afterwards.
- So with regard to prevalence, so this is a worldwide meta-analysis, and I think a lot of people know that the prevalence is reported to be higher in women, and I'll talk in a few slides about just that. There is controversy about that about whether it is actually hire in women, or if it's just that women report it more and receive more medical attention
- for disordered eating, but the lifetime. This is so. What are the things that made getting ready for this talk interesting is that the American Psychiatric Association published New guidelines
- Monday.
- so we wanted to make sure we gave you the most up to date information about this. So we did a bunch of first slides. But this reflects the most up to date information that we have about prevalence of eating disorders.
- So, even prior to Covid, the prevalence of eating disorders was going up. And so another stereotype about eating disorders at this that they're purely a Western phenomenon. So you can see. So Ea PC. Is estimated annual
- percentage. Change. So this y access is eapc. So it's pretty easy to see that it's up everywhere. So on the x-axis you have all the different regions in the world growing the fastest in the East Asia, at least prior to 2,018.
- So a lot of the data that we have about eating disorders is pre covid pandemic. It gets even more interesting mid and post, or whatever we are now covid pandemic. But even prior to 2019 the prevalence was going up, and in all of these countries it's so it's growing the fastest and low income cost in the Let's see. So the pro, as I said, the prevalence is rising over time, so estimated lifetime. Prevalence is 8, and this is all eating disorders, and this is reflected by what we're seeing here at Uba, and ting in a young adult house. So this is from 2,014 to 2,021. And I think you can appreciate that there is an initially sort of a flat at 2,019. But then we're starting to pick up again, and if I
- I don't see any of the internists I work with recently, but they sometimes do a get admitted to the adult floors, and I just wanna thank all the intern as the hospitals who helped us take care of these patients. As in patients so currently a team of health, we get up anywhere from 3 to 13 new referrals every week, and our admissions for eating disorders to the peeds unit doubled in 2,021, and I've continued to rise since then. So As I said, it's hard to estimate prevalence for eating disorders. So there's some what we call subclinical behaviors, like bingeing perjeting lack of use that are nearly as common as males and as females, and these are behaviors that people feel deeply ashamed of, and are not so likely to report to healthcare providers, and less specifically asked. So less than half of people with anorexia and nervosa are estimated to receive treatment, and less than 10% of people with Bolivia received treatment.

- One of the things that affects our estimation of whether someone so anorex is probably the best known eating disorder. One of the things that impacts us asking is our false belief that everyone within eating disorder is underweight. So most people within eating disorder are not underweight and that's important for all of us to keep in mind and stigma impacts our estimation of prevalence again because of shame with some of these behaviors, but also because of weight stigma.
- So we were hoping to give this talk to out for you today with Eva Manthi, who is our Dietitian, and to a new mental health she's out sick today. So this slide is me attempting to be Eva. But Eba is an extraordinary resource Here at Uva she's the most experienced dietician in the entire hospital for eating disorders, and for many years she was both the inpatient Dietitian, and then also our outpatient Dietitian and our eating disorders clinic. But since she had a baby. She's just outpatient, and we're expanding services. And for you guys, in terms of thinking, who do you refer people to? There are now also 2 dietitians at Northridge with eating disorder experience that you can refer to. So what is waste stigma and how does that affect eating disorders? So we soon as the socio-cultural idealization of and preference for thinness that can increase body dissatisfaction, and it's a huge risk factor for development of eating disorders. It's an independent risk factor, though, for depression and for poor health outcomes so lack of awareness, as I said, of eating source other than the anorexia may mean that individuals Don't get the diagnosis that gives them access to appropriate treatment.
- The this is what I refer to as the biggest loser phenomenon where overweight patients who are losing in an unhealthy way. For example, with atypical anorexia nervosa may start out at a weight that's considered obese end up at a normal way, and they're cheered on by their family members as they restrict more and more food groups, or, you know, ex do excessive exercise end up with stress structures because it's not recognized that this is a problem so and many highly popular. You know, social media and just popular in general, strategies for weight management are highly disordered. So a lot of our patients tell us that they start restricting their intake when they're using apps online, you know, like, lose it as one that we hear all the time that encourage you to count the number of calories, encourage you to count the number of carbs, and then people just can't stop and keep going, cutting out certain food groups, exercising despite lack of enjoyment.
- And then a lot of eating disorder treatment programs that were set up mostly, for people with anorexia sometimes have weight cut offs, or insurance has a weight cut off, so they'll say, Well, this person who's lost £70 in 3 months is a normal weight, and so they don't qualify for services. So that's something that we have to push back on populations at higher risk of eating disorders. So women we think, or at least they are more likely to come to medical attention. Lgbtq. People high risk sports. So any sport where there's a weight cut off right so to me the visual image I get in this is like all the lightweight rowers
- that you know during certain seasons, eating only cheerios and skin, though great, any wrestling sport we have to make weight, and then aesthetic sports, like gymnastics or cheer, and then dance or ice skating. So these are high considered high risk sports history of trauma, particularly sexual trauma and medical diagnosis like type, one diabetes and celia, because both of these give you the opportunity to purge. Basically so some of us, we use the term it popular term diabetes who are taught to to count cars, but who start to think about. Wait more, and then we'll intentionally omit insulin in order to lose weight and be able to pee off

that glucose patients with Celiac will intentionally ingest gluten, so it's not to be able to absorb certain foods.

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00:51:03

Patients already receiving psychiatric treatment for other conditions are more likely to have eating disorders. And so all these patients are at higher risk of having eating disorders, and then we know non-white patients are at higher risk for not receiving treatment. So what's the prognosis for eating disorders? So it's not good. When I was in training, we were taught a third, a third, a third, that a third of people recover, a third of people never recover. And then a third of people sort of relapse and remit.

- And this is actually borne out by the data now, and this is an international metal now. So it's somewhere between 20 and 40% of people relapse.
- So this is something to chew on. So eating disorders have the second highest mortality of any mental illness, and that second only to opioid use disorder, right so higher mortality than schizophrenia, higher mortality than depression hired mortality than bipolar.
- So people between the ages 15 and 24, with anorexia, have 10 times the risk of dying compared to same age, peers and the risks are the medical complications which are arrhythmia and sudden death, and that's most likely to happen in very low weighted patients who are purging and have electrolyte abnormalities, and we'll talk a little more about the mechanisms for that. But then also suicide.
- So when you're thinking about these patients in the back of your head. So
- you know, as the medical provider on a team, you're always thinking, okay, what's medically safe. But you also have to be thinking, what is the big picture for this person what puts them at risk and screening for suicide.
- All right. I'm gonna hand this back to Laura to talk about how to find these patients.

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00:52:58

Yup. Well, okay yeah. So that's talk about some screening tools you can use. And in your practice there are 3 that I would say, are evidence based, and have reasonable psychometrics. To consider one. The easiest to kind of the most common is the scoff. And so that's this blue box here on the left shows you the questions for the scoff. So it's 5 questions that you ask in clinic, or have some on your staff asking clinic. Do you make yourself sick? That's the S. Because you feel uncomfortably full.

- Do you worry that you have lost control? There's the C over how much you eat?
- Have you recently lost some more than one stone? So this is English season. Put the stone on here for us.

- So £14 in a 3 month period. Do you believe yourself to be fat when others say you're too thin, and what you say that food dominates your life. So if patients answer affirmatively to 2 or more of those you want to be concerned about possible eating, disorder high sensitivity, and specificity. On this the eating disorders examination Questionnaire LED. Eq. Oh, and let me say the scoff takes less than 5 min to administer right. So it's a good one for primary care. It's quick. It's people can learn it. You can have your nurse do it So their advantage that and it's cost effective. It's free. Right Here you go. You have it.
- So that's a really common one. The 80 queue is 28 items. It takes less than 15 min to administer. So it's Still yeah, you're not gonna do it in part of your visit, but you can add it on and have someone do it while they're in in clinic, so it's still pretty brief. It's available online for free. So it's cost effective. I should qualify it's available online for free and English.
- It I'm going to mix up whether this one's available. Yeah, it is available in other languages, but you have to contact to the developer to get it.
- The cut score on LED queue is 2.8. Again, reasonable sensitivity and specificity has reasonable, reliable reliability and validity as well, and then the eating attitudes test.
- It takes about 15 min to administer it's 26 items cut score of 20 still acceptable sensitivity and specificity and you can get it. It's available on online for free and English just a reminder, though these are only screeners. So all 3 of these measures wil give you some indication that there's a reason to be concerned. But they're not diagnostic, and they're not going to differentiate between the types of eating disorders.
- And so don't use these diagnostically, but they are quick ways to see if you need to be worried and seek for their evaluation.
- Alright, so some of those the signs and symptoms, the physical signs and symptoms. This is eating disorders affect the whole body.
- And so people with disorder, needing, maybe having trouble focusing, maybe having problems with their memory.
- The cardiac symptoms that folks can have impacting blood pressure and ending heart rate bone health administration. So biological females with anorexia, and when they reach a dangerously low weight, tend to have a minor gi. Symptoms Early satiety delayed gastric emptying, constipation, hunger swings and just poor energy, lethargy easy bruising these are all things that like if you're seeing a patience right? And and these are things that can be caused by lots of lots of different things. But you're seeing kind of a combination of these like, Have your have your
- Here's on the back of your neck. Stand up some of the behavioral signs and symptoms. So certainly an email adaptive eating behaviors, dieting, skipping meals, restricting foods, Binging Feeling a sense of loss of control, hiding
- It's sinking out with kids. I see a lot of sneaking food. I don't know whether the adults it's not so much sneaking because they're in control of the food, but but just hiding it and being secretive about it compense story behaviors where I talked about what some of these are rigidity around eating right? So folks who get really controlling about their eating, whether that's about the carb counting and the calorie counting, measuring, and weighing their foods.
- And again, this is tough, right. It's all on a continue. I mean, these are these are behaviors that are often promoted in weight management, and in some grand chronic illnesses, such as

diabetes right like I I work in diabetes clinic carb counting is really important to do. How about pencil and to take? But it's Where is the line? By what point does it become?

- Problematic and disorder, meeting anxiety around eating certain foods or food groups. There's not really a normative continuum for that right. If someone's anxious about certain foods and
- guilt around eating, and again you know it. It's it's proportional. Sometimes it's like oh, I shouldn't have that. But when people are really experiencing a lot of guilt and shame around their eating. That's that's a problem. So forth. Being entirely caught up. We're kind of disproportionately tied up in your body, shape and size. Those are all red flags for eating disorders.
- So those are things, you know. If you're picking up on with your patients. you worried. Let's talk about treatment so ideally you. When you detect an eating disorder, you want to create a therapeutic team.
- and ideally, you want a therapist. You want a dietition. I'm notice. I keep saying the word ideally right, because there's variable levels of coverage for all of these services. But in the context of a team the physician's job is medical safety.
- and I know an internal. You guys, Aren't used to looking at growth charts right because they stop at age 20, but in peace that's something. Oh, thank you. Sorry about to turn my mic back on in peace. We're looking at growth charge all the time, but some of that is honestly the most important thing that you could look at, and I encourage people to.
- You know. Once you have somebody, we follow people in our clinic up to age 26, and so once it's after 20, we'll plot it out because it's easier to see it than to follow the individual weight over time, and it will benefit your patient if you refer them to treatment as soon as you think they have an eating disorder, because in in anorexia the faster you can get people to stop doing certain behaviors, the greater their prognosis for recovery.
- Alright, so for at the initial medical evaluation, especially if you're worried about anorexia on your side. You want to be doing Orthostatic vital signs. You want to get their weight ideally after voiding and in a gown. And the reason why we do that. So I literally just came from where we're doing. This is because patients will water a load in anticipation of visits, and knowing that that inflates their weight. They'll put on 5 laser layers of clothing, knowing that that way is more so, we try to do everything in a very standardized way depending on the patient, and sort of where they are in their recovery. There are some patients that really don't want to see their weight. There's patients that do want to see their weight where we don't want them to see their way.
- It's a little bit different in peeds, I would say, than in adult medicine, because there are sometimes parents who will say to us, Well, can you make sure she doesn't see her? Wait, because if she knows she gained a pound, she'll stop eating this week.
- It's different in adult world.
- depending on the situation. You may want to get an Ekg: and then, as far as the laboratory work up. Mostly you're looking for a cute electrolyte abnormalities. So when we're getting patients referred to us, we hospitalize probably one in 3 of our patients on first presentation, just because of the severity of their presentation. And one of the in we we'll talk about reasons for medical hospitalization, but one of the ones is electrolyte abnormalities.
- And then you want to screen for other medical diagnoses like that could be missed. So things like Celiac things like thyroid disease things like ivd.

- Okay. So this is from the brand new Apa as of Monday. 2023 recommendations it's not that different than what we've been doing for a long time, but it's nice to see them all in one place, and so we'll focus on the middle column as well, which is what's recommended for adults.
- So in the context of an eating disorder. Indications for medical hospital is so breedic. Cardiacardia, less than 50 or soatic change in heart rate and blood pressure, so greater than 30 needs per minute, going from line to standing drop of more than 20 in systolic blood pressure, hypertension. So less than 90 over 60 glucose, less than 60 hypothalamia hyponitremia. Hyponitremia is pretty rare presentation. But again, water loading. You can see that hypo phosphateemia hippo magnusima you said I'm seen with reffeeding syndrome Hypothermia bmi less than 15. So just to paint a pitch for you. Of what a patient with a Bmi looks like with 50 of the mi 15 would be a woman who's 5 5, who weighs less than £90.
- So one of the things we talk about with our piece residents is, how can you? How can you recognize somebody? So the quick and dirty role we talk about is a roll of fives meaning Someone should weigh about a £100 at 5 feet, and then should have about £5 for each inch above 5 feet.
- It's different right if they're if they've always been slender or something like that. But just if you're like trying to like snap judgment, someone's calling you on the phone asking, Does this person need to be admitted? That's a useful rule to have in your head for men. We use the role of sixes. So £6 for every for every inch. I know, I should think, in metric, but I think in pounds.
- Let's see. So rapid weight change so greater than 10% weight loss in the 30 day period prolonged Qt. We haven't. We had a patient with long Qt. Syndrome and anorexia on the floor recently. That was a challenge and then compensatory behaviors that they can't control. So things like exercise, standing or vomit. So standing is one that people we don't do eating the source every day, sort of like, i'm like, what are you talking about? So these are patients who literally will come into the exam room with you, and they won't. Sit down because they know that it burns more calories to stand, and that can be really a hard behavior to control in an outpatient setting.
- And then, if they've had syncopy, if they've had hypolycemic seizures. If their diabetes is completely uncontrolled, or if there's some evidence of organ compromise.
- So, as you said, I was a French major, so slides like this make my head hurt. But what happens when someone is acutely starving? So basically you you dip into your glycogen stores first.
- then Glucone Eugene's genesis kicks in. Then Ketogenesis kicks in, and then last is protein catabolism. So by the time patients get to us a lot of times they have lost a significant amount of muscle Mass.
- And the reason why we hospitalize patients right is to try to prevent reffeeding syndrome. And so what's happening with reffeeding syndrome is when you take somebody who all of their
- atp stores are completely depleted, and then you start feeding them a normal amount. Their pancreas goes while they secrete a ton of insulin, and then are basically everything gets pushed into the intracellular space right? So their glucose their phosphorus, their magnesium. They use up more firemen. And so you can see significant edema sometimes in someone who goes into reffeeding syndrome.
- And so I can recall, like when I learned about refeding center on what we were taught about was the experience that during the liberation of the concentration camps during World War Ii.

The American Gis we're given with chocolate bars. And so for patients who were severely malnourished and were given chocolate. There were some people who just died, and it was spontaneous cardiac arrest. Basically and this was reffeeding syndrome. So why so? What is the cardiac More betting that's associated with repeating syndrome? So this is the on the left. You see the pictures from it's a Turkish study of women with anorexia compared to controls on the top, and then the women with anorexia on the bottom, and what you can see is about 25% of women with anorexia get this fibrosis this and we think that the people with the fibrosis, when they have electrolyte abnormalities or when they have Qt. Prolongation are the ones who are more likely to have spontaneous cardiac arrest.

- So oh, I'm: I'm missing a slide here. So I'm gonna talk for 2 s about what our inpatient protocol is. Have any of you cared for patients on the Anorexia protocol order? Set.
- This is a few nodes, so it's a pediatric order set, so it's a pain in the neck. You're ever trying to use it on an adult floor. But basically what it spells out. Is it? It's a medically prescribed diet.
- So we start patients at 1750 K. Cows, and that number is not arbitrary. It's derived from studies that were done at Ucsf. So when you're trying to rapidly stabilize a patient, you want to start them at a high enough calorie, count that it won't. Take too long to get the medically stable, but also that won't psychiatrically sort of push them over the edge so many patients By the time they get to us they're eating less than 500 calories a day. So if you suddenly present them with 1750 K calls, they get overwhelmed.
- But this is where we start, and the Dietitian prescribes the food basically. So they're given a a meal. They're they're told. Okay, do your best to eat this in a half an hour. If you can't eat it within a half an hour, we're going to give you the equivalent, as in the hospital we have boost.
- If you can't drink that amount in half an hour. Then we're gonna place an Ing tube and do it that way. So, page adult patients that are coming in on an anorexia protocol are doing so voluntarily unless psychiatry gets involved in this, they don't have capacity to make medical decisions, but that is very rare. So most of the time when people are coming in for medical stabilization. We explain to them in advance what's going to happen, and they know that they're going to get it to you, and there are some people that it actually helps them to get a tube. I know that sounds strange, but it helps them that we are forcing them to eat, because in the mentality of an eating disorder it's giving up to start eating so in turn. But if somebody needs a tube in order to be able to be medically stabilized. Then that's going to impact where they can go next. So we don't follow patients with eating disorders with tubes in our clinic, we refer them to residential treatment.
- So in terms of what are the levels of care that people can receive. So there's inpatient psychiatric units that are locked right, and that's usually for people who are suicidal or in rare cases where feeding is mandated.
- So that's not usually what happens for our patients. They're next column over in patient psychiatric units that are eating disorder focus.
- So the best known in the States is called Eating Recovery Center. There's one in Denver there's one in Dallas there's one in chicago and there's one in Baltimore, so so that's so some of those are locked. There's 24 h nursing. They can handle the kind of electrolyte imbalances they can handle the medical monitoring that's seen it from really acute patients next step down is residential, which is more like a dorm and fewer medical resources, and then next step down

from. But but you sleep there. Next step down is partial and then intensive, outpatient, and outpatient care.

- So in our region spoiler, alert. There are no higher levels of care in Charlottesville. There used to be, if anybody's that we're driven by Jm. Stock on West Maine, like in the middle of all those restaurants Prosperity eating disorder center used to be located there no longer in business, but these are the ones in our region. It's not unusual for a patient to be hospitalized here at Uva, and then go to Dallas for residential care, or go to North Carolina for younger patients, or go to Northern Virginia.
- There is now a virtual eating disorder recovery program that's active in Virginia called Equip.
- So that was sort of a new pandemic invention that seems to work well for some people. I want to talk a little bit about family based treatment, because i'm guessing that's not something you guys hear about a lot in internal medicine, but it is the most evidence-based treatment for anorexia Nibosa, and in the new Apa guidelines. They say that this is like their number. One recommendation for young adults who have a parent involved.
- So this pictures of Modley Hospital in the Uk. Mosley is the place where this was invented, and the idea behind family based treatment is that the parent is given control over what the person with the eating disorder is eating. So during phase one the parents job is, and in in true monthly therapy the parent is told. Quit your job.
- Your job is to feed your child. You need to go everywhere with them, including school, and you are to make all decisions about food, and your child is to make no decisions about food. It sounds like a call, right it kind of it. It started out kind of quality, but it turns out that this works better than any other medical intervention that we have.
- So during the first phase, they are told, do not respect any preferences that your child has currently for food, respect the preferences they have before, so if they didn't like him before they had an eating disorder, it's okay to not feed them hand, but if they say well, I don't eat ice cream but they like to ice cream before you feed them ice cream and you spend your whole day feeding your child 6 times a day.
- You've put butter in everything, you put cream and everything, and you don't allow them into the kitchen. So this is true family by space treatment during phase 2. The goal is once they get to a goal weight which is set by a dietician based on their previous weight trajectory. Once they get to a goal weight, they're given a maintenance plan, and then the work of that
- phase is tolerating the weight. So in phase one the patient doesn't get a therapist the parent does in in phase one. The only job for the patient is eat the food in phase 2 it's tolerate the weight gain, and then in phase 3. It's only when they been able to maintain that weight, the patient has started to give more choices and establish a healthy relationship with food.
- So it sounds strange. It's very hard to do in real life. Not that many people can just quit their job and go to their kids school to feed them.
- But what we do in team, how this? A modified kind of fpt. So this is the book that we like, which is called how to nourish your child through an eating disorder. And so what we tell parents is, find a 10 inch plate.
- Fill half of it with a grain, 25% protein, 25% fruits and vegetables. And then at every meal there's fat and dairy and fill the plate, eat every 2 to 4 h, and do not on our eating disorder preferences. So you can imagine, like this is an intense intervention. It does tend to work better in kids who have intact families, and it is very hard to operationalize in real life. But

there are also eating disorder programs that will help you do this with your kid or a young adult.

- So these are the Apa. 2,023 evidence based guidelines. So adults with anorexia should be treated with eating sort of focused psychotherapy. Emerging adults within involved caregivers should be treated with family-based treatment and sorry the level. One indicates that it's a recommendation and level. B indicates moderate evidence for that, C is the low level of evidence.

Unknown Speaker

01:15:28

So adults with Bulimia should be treated with Cbt and an Ssri and bin sheeting disorder should be treated with Cbt or in our personal therapy.

UVA Medicine Grand Rounds

01:15:37

So, it's okay. Bye. Yeah, but that slide could be good reference. For what are evidence-based psychotherapies for other eating disorders? So there you have that.

- Yeah. Okay. So what do you do If you have a patient with Medicaid, for example. So Medicaid Doesn't cover residential treatment for eating disorders. They cover medical hospitalization and outpatient treatment, and that's it. Nothing in between
- or but even patients who have insurance sometimes have to wait for a placement because all the programs are full. So you follow them weekly, do, or the static vital signs. Consider using supplements. If somebody comes to you and is extremely underweight, you can always start at 1,500 k cows. One can of boost or ensure has 250 k cows.
- and plus has 350 K calls, and so you can just do supplements if you need to, and then follow their account 10 and their ekg, and then refer.
- So I wanted to show you a few growth charts, just so. That had an idea of what this looks like. Right? So the diagnosis here right is the anorexia under Bos, so you can see they were sort of trucking along at fiftieth to 70 fifth percentile for weight, and then just fell off a clip.
- So when they came to clinic they had the rapid weight loss. Their heart rate was 44, and this was somebody that we sent directly to the hospital, and once she say, the lies ended up pursuing a partial program in New York. Here's the patient who had. This is my patient who had anorexia was weight restored, but then started purging, and that's not an uncommon trajectory to go from one behavior pattern to another. But when she first came her by car was 29, but she didn't have hypocalymia or other electrolyte abnormalities and her vitals were okay. So she is somebody that I follow as an outpatient along with a therapist and a dietician.
- This is the growth chart for someone with our fin so long standing underweight, and by the time she came to see us was only eating 3 foods.

- Dr. Pepper. hot dogs and occasionally callered grades. Yeah, so those are the only foods. And then also kind of dropped off of cloth. So she was medically hospitalized because we tried to help her as an outpatient. She wasn't making weight. She ended up needing an Ng. 2 while hospitalized, and then transferred to an inpatient treatment center in Texas.
- So future direction. I want to make sure I have time for questions, but future directions for eating disorders research. We know it has a genetic component. There are twin studies.
- We don't know enough about that, but that, I think, will be the future of Psycho Farm is figuring out those genetic links. And then I just want to mention the philosophy of health at every size. Right? So a lot of what we talked about was patients who are in larger bodies who have disordered eating. How do we make sure that you know we're telling people how to be healthy at every size as opposed to just hammering home? The message of everyone needs to lose weight.
- So there, as part of help at every size, there are a lot of dieticians now who are trying to take that approach, even when they're starting with a patient who, we think needs to lose weight talking about not so much the goal being a number. But how can we all be healthy.
- so I'll stop with that. Thank you both so much for this very timely talk. It was being disorder awareness week. I wanted to go a little bit further into the health. At every size component of this, I think one of the things that we really struggle with as primary care providers, and as in turn, is that we do have a lot of patients who have pretty severe comorbidities related to their weight that are at very high risk for developing disorder eating based on our counseling. So what are your thoughts and ideas in terms of? How do we get started in a way that doesn't put people at risk. And how do we identify those behaviors without kind of getting people off of the trajectory where they are heading towards a a healthier condition in terms of their other commodities.
- So I work in our wait management clinic again, pediatrics. So I think that's important. It can be helpful to focus on health and not wait.
- and our discussions with patients. And so still teaching some of these things about what are healthy foods, what's a balanced diet. What are healthy amounts of exercise? What's healthy sleep right? And working on those health behaviors for the sake of working on the health behaviors, and you can even talk about it in connection with the Comorbidities.
- Right? What's a heart healthy diet? What's the you know it, and not so much to focus on Calorie, counting, I think, but what are healthy portion sizes right? So on that tenant's plate, and actually a difference. We, instead of half of it, being grains like we would do in family based treatment for anorexia. You want for that to be fruit and vegetables and a quarter of a grain. So you're flipping that but just teaching healthy nutrition and healthy sleep and health exercise for the management of health. Not a weight, I think, is a good place to start so it I. My response to that would be that I use motivational interviewing a lot with patients. And so, if you say to a patient all of us could probably eat healthier. How do you think you could eat healthier? It's powerful when you hear what they have to say, because a lot of times. They know right what they're supposed to be doing, but their goals might be different than ours, and especially when you're dealing with patients who have food insufficiency right? If you say well, you should only eat at whole foods. That's just we. We missed the boat right. But if you say, well, maybe I could switch if the patient might say, Well, maybe I could switch from Dr. Pepper to diet Doctor Pepper role with that. That would be my yeah, sure thanks you both for

a great talk. Your point about what are facial interviewing was a good segue into my thought of. I was hoping you all can just share some phrases that you commonly use when speaking with and interviewing these patients to make the patient feel, you know, safe and able to be forthcoming to you. I think very often the labels that that even the words that we use can be incredibly important to the patients in my experience. Sometimes they hinge on very specific ways that we phrase things. So do you have any advice for just how to how to talk to them and make them feel comfortable and safe. And are you specifically asking about patients who are overweight or patients are under?

- I think how to answer that, because it depends. I would start with it by asking them how they feel about their own body. Right? So this we don't that to ask them that. So how do you feel about your body? How do you feel within your body? Do you have feelings about the way you look sometimes as part of a regular physical, I'll say, do you have any concerns about your weight or your shape?
- Because it's funny, like the shape question is more of a male question. Voice will almost never express concern about their way. I think if they don't well, I see I'm always seeing younger patients right, but they think it's like week or something to have concerns right there, you say, like G. But if you say, how are you worried about your shape in any way or yeah, I think to you it's so. Are you worried? You can also phrase things as what is there?
- What would you change, or what do you? How often do you think about wanting to change anything about your body?
- It's kind of normalizing. Yeah, I think I think sometimes phrasing things that way kind of normalizes it. So I think about like when I'm asking about suicide, they'll say, do you ever think about killing yourself?
- I say, how often do you? How often. If ever, do you think about wanting to die, or want me to kill yourself because that opens the door a little more to normalizing it, that people think about these things. It and I use sometimes segments a lot like. Sometimes people tell me that they're vomiting in order to lose the weight.
- Yeah, and just sort of leave it there, you know. Is that ever something we've tried
- A lot of my patients have tried using laxatives, and we're going to just wait.
- Have you ever thought about that, or using social media is sometimes useful to is, you know, what's your social media if you'd like, you know, because a lot of our patients tell us that they feel like Instagram started their eating disorder.
- You know, when you look at social media, what do you think about your feed?
- Got it? Thank you. Thank you for the talk. So a couple of questions to think about from the inpatient side of care of patients. Leaving this again, I think, for the average
- resident, and probably our non primary care faculty that that's where some of the intersection is most likely to occur. I think a conversation you, Susan, and I have had before is about the awareness of utilizing the resource of adolescent medicine as a consultative service for helping to recognize sort of severity and in patient management of the medical management, and not necessarily the psychiatric management, because I think that's probably for a lot of us on the in-patient side, who we might think of as our resource for caring for patients admitted to general medicine. With eating.
- This is psychiatry. So if you have anything to add other than maybe kind of a a thumbs up and an endorsement but you can't call this for 45 year olds. So just because yeah, then we're, it's

not pediatrics anymore. But this is an area of opportunity. I would say, we're always looking for internships to cover with, because we only see patients up to age 26, and then we have to transfer them somewhere in Charlotte. Still, there's not an intern in general practice that I know of, who's regularly seeing patients with eating disorders that they will admit out loud right? Because I think people are fearful that if they say. Oh, yes, I see patients with eating disorders that all of their partners and all of their friends will refer all their patients to them, and these are hard patients to take care of, right. It's similar to substance abuse in the sense that the patients are ambivalent. I got about getting better, and as providers like. We love for our patients to love us and think that we're doing a good job.

- The patients often are in. At best it's not hostile right? So it's a hard, patient population, I mean in patients. We're always helpful. We're always happy to try to be helpful, and but I think partnership with psychiatry is important, but we, I but I would say that I do think our service has more in depth. Knowledge of the eating disorder programs around the country, because we've all had patients go to them and have experiences there, and I feel like we have a good idea what those programs are looking for in terms of the patients they will take in the ones they won't. And if I can just add, with the psychiatry, consult piece, that there are 2 different services in psychiatry doing a patient consults. One is like, I. You know this is a psychiatrist, and they're really going to be doing safety screenings and then correct. And then the behavioral consult service with doctors and Kavanaugh might be more helpful for helping work through ambivalence. It's so going to outpatient treatment. Or if you have, yeah, I really think that in-patient stage patients are not a point cognitively where they can do much intervention from a like a kind of behavior therapy standpoint. But if you're needing help for more of a behavioral standpoint or working through motivational interviewing and ambivalence about going on to treatment. I I would strongly recommend Dr. Zo and Kavanaugh for that, and then, so the second question thing about the in-patient side. So we looked at thinking about triages and triggers for hospitalization, for a patients with meeting sort, so to take that to the next level. Are there, you know, kind of a few scenarios or pearls of wisdom, and to think about in terms of You know patients are the factors to consider about, you know. Maybe even tapping under considering a higher level of care than just admission. So you know, are there scenarios where you think you know more of the icu setting, or the closer monitor setting? Or are there pros of wisdom to think about? You know the patient with who maybe have an underlying eating disorder presents like this, maybe sicker than we all realize.
- So the patients at greatest risk, medically for cardiac or at so. So I don't know if anybody here took care of the other one with long Qt: right: so patients with pre pre-existing cardiac disease, you know, are going to need to be on telemetry patients with electrolyte abnormalities patients with rapid weight loss, so are at highest risk for re-feeding. So the other part of our pride of protocol I didn't talk about is that we do end uperic supplementation with phosphorus and potassium when people arrive, and that's something that helps as far as shorting the duration of time that they need to be in the hospital because we can normalize their like the refeding syndrome when it happens on day, 2 or 3. So that's the biggest thing I would say is that for very underweight patients for patients who have rapid weight loss for patients with electrolyte abnormalities, just tinking them up in the er isn't always the safest, unless they go back out and start restricting again. But if they go back out and eat more that

actually places them at a higher risk. So that's the big thing that you have to be mindful of. That is your question.

- Yeah, no, I think so. Yeah. Just trying to think of, you know, is, are there? Are there scenarios to be, you know, more afraid. And you know we had a a patient recently on the General Medicine Service, who came in with a a late presentation of sepsis with underlying anorexia. And I I think, just I I think there were. There were factors such as the baseline heart rate being probably low in this patient, that when they presented by more acutely ill, that how they didn't stand out with like a sedimentation rate of like 2, because of their hypothalam anemia. And then it's hard to know if there is an infection or something else going on. Yeah, that the very underweight patients who've been sick is the longest you have to, and also are the ones most likely to have the my cardinal fibrosis So underweight for longer period of time is generally that prognosis. Thank you. Alright.
- Oh, thanks! Oh, there isn't
- All right. So Dr. Evilsen so thank you very much for an informative talk, fully agree.
- fully agree with health at every size. Do you find that providers try to rationalize a low heart rate and athletes. 100%. Yes, so that so in young women especially, we worry about what used to be called female athlete triad. And now there's another name for it that I always forget. It's the acronym is Red Z.
- But I basically it's that low heart rate, low bond density, Amenoria right? And I would say that yes, like trained to athletes, have a lower heart rate.
- But that's where you need the growth. Chart right? So if you have a patient who is on their cross country T. And sports coaches get into trouble with me a lot right, because a lot of times they'll tell their athletes, hey, you run faster. If you're £10 less like you, you, your performance will be better. You'll make this team if you lose £15, not every sports coach right like we. We work with a lot of coaches who are the first one to call us and tell us, hey? I'm worried. This person has anorexia.
- But yes, I do find that providers try to rationalize low heart rate, and if there are other warning signs that you're seeing, if you're seeing hair loss if you're seeing a minoria like you just always. If you're seeing electrolyte abnormalities, you always have to be thinking about eating disorders in that context, and boys are more likely to be missed because we just say, oh, this is somebody who's athletic who has a heart rate of 40, and we don't think to ask them. You know. How do you feel about your body? What's going on with? Why go to the bathroom every time you need dinner.
- So Yes, but it's a long. It's saying Yes, so we do. Great. I think that's it. Thank you both. So much for a very fantastic talk. Yeah, thanks for having us.