[MUSIC PLAYING]

EVA SZIGETHY: So, I have some grant funding, PCORI Grant, looking at some of those integrated models and inflammatory bowel disease, and none of my disclosures affect the content of my talk today. So I hope to impart on you why the integration of behavioral health is critical in medical settings, how to deliver it effectively, and I will be specifically focusing on how do you use the digital cognitive behavioral therapy apps. I know there was-- the specific question was for nicotine, but we're going to talk more broadly for anxiety and depression. And then, the importance of the treatment to target whatever combination of behavioral integration and modalities you use.

So with that, our health care costs are rising, and continue to rise even though we talk about changing up how we're doing things. And one piece of this rise does come from mental health. So behavioral patients who have behavioral health issues, across chronic diseases, are two to three times more expensive, in terms of their overall costs and contributing to this growing number.

So while we are talking about shifting to value and improving the quality of care-- and we're talking about doing that by really changing up health care delivery models. So new strategies that are less reactive, they're more proactive planned, we're treating our patients over a life span tracking how they're doing-- we're still not quite there. And I hope today to impart on you that the behavioral health management integration, into all the kind of work that you all do, can be an important piece of helping to attain this quality and also reduce those costs.

So we're going to talk about these general areas of the targeted points that I wanted to make sure that you take away today. So population health-- it is as its definition implies-- treating a group of patients and tracking them in a systematic way. So here we're talking about tracking your patients who have behavioral issues in a systematic way. And then by knowing their comorbidities, by knowing what they're starting with, that you can track that progress when they come in to see you for their medical appointments.

So I know that Dr. white had given you a talk yesterday on major depression and the diagnosis and the treatment options. So I'm going to supplement her talk but still build on major depression. Because if there's one psychiatric disorder, of all of them that's worth paying attention to, depression is still our most costly and still least identified psychiatric condition. So when we look at the lifetime prevalence of depression across different chronic diseases, it's basically at least double, sometimes triple the rate that we find in community samples of patients who don't have chronic medical diseases.

And there has a growing number of studies. One of the most best done studies is by the Milliman Group, who looked at the difference in costs, overall health care costs between those patients that have mental health conditions. And this was broader than just depression but depression was a big chunk of it. So it included all psychiatric quotable diagnoses.

And you can see in the highlighted column that there is a cost potential, and these are per member per month costs of those patients who have medical, mental health comorbidity. And there is the opportunity with proper screening and with proper interventions that we can actually reduce that significantly. So as I stated, the Milliman Report really put on the map that idea that if you have comorbidity mental health conditions, your costs of overall care is two to three times higher. It's a long read but a worthy read. And I have the website, where you can download the report to read for yourself.

The estimates of that is $293 billion a year. And that was in 2012, so likely even greater now. And again, as they're starting to look at when you have effective behavioral integration and what's been most looked at as collaborative care models, you can reduce those costs annually by billions. So not just millions but billions of dollars.

So how do we do that? So some of these points are worth hitting against. I know Dr. White had talked about the PHQ-9, and its use as a screening instrument. It's one of multiple instruments out there. And I think the key here is that there are multiple brief instruments available. And again, if you're going to just pick one to screen for, screening for depression is very worthy.

If you have the bandwidth, in terms of your office and how it's set up, to screen for other disorders than anxiety disorders, substance abuse disorders, and post-traumatic stress disorders would give you the highest yield. So for depression, you heard about the PHQ-9. The promise instruments are now they have brief 8-question screens. And the advantage over the promise instruments, over the PHQ, is that it only probes affective and cognitive symptoms of depression.

So if it's a positive, it's going to be less false positive for those somatic or neurovegetative symptoms of depression that can be positive if somebody is having an active disease, that basically causes them to be fatigued and have malaise and have poor appetite. These are scored in a standardized way. They're available on the public domain. It's an NIH sponsored initiative.

And they have just moved to making these available by computerized adaptive testing. And they've also were in the process at UPMC of actually integrating the promise instruments into Epic, and so to be easily tracked as we move and watch our patients longitudinally. So when we say treatment to target it means that you have something, hopefully something, quantifiable that you are tracking.

So basically, if you're using the PHQ-9, a 3 to 5 points change, or a 50% reduction of a score that was greater than 10 are considered clinically significant marks for you to track, that you are appropriately managing someone's depression, for example, if you start an antidepressant. And these scores, of course, are always taken in the context of how your patient is doing, how the patient is functioning. And of course, also as you're making treatment options, it's just worth to remind you as you know that the scores are one element of it. But I think we obviously-- our patients are on different insurance plans, we have different formulary options, costs associated with the different types of antidepressants, and so-- and treatment tolerance and what patients have failed. So we're taking all of that into effect.

This is something that I'm tracking because one of the things that I am developing for the system is a greater access to digital behavioral health tools. So I really care about, what are the generational differences in our patients in terms of their expectations of health care delivery. So this is broadly, this isn't just behavioral health.

So if you take the baby boomers, Generation X, and millennials-- so as we get-- our patients get younger and younger they are not just preferring, but by the time we get to the millennials they expect mobile health options, telepsych, telehealth options to be part of routine care. As the generations get younger, they doctor shop a lot. Their allegiances to the person that gives them the solution that they have actually investigated themselves using Doctor Google, that very legitimate medical source.

But nonetheless, they come in very, very compelled and believing in what they find and looking for that. And the younger generations are the ones that are more checking out our profiles online, and seeing what our ratings are. And again, more and more of them are active digital tool users, digital gadget users. And it's interesting. They still want a personalized experience with a doctor, with a human, but again they're expecting information to be sent to them by digital means and then communication to evolve in that direction.

So even with this digital advancement, I mean, the trust to doctor patient relationship is key. And what hasn't changed across the generations, is patients wanting to be involved in their care decision making, and wanting that health information we give them to be understandable but preferably a digital format. And I think that as providers, we need to know that this is what our patients expect, and think about how can we provide this in our practices.

So behavioral management-- the most studied behavioral management we have, and this is for depression, anxiety, substance abuse disorders, insomnia, post-traumatic stress disorder-- are the cognitive behavioral therapies. And I'll go to a slide to show you what that entails. Mindfulness meditation originally started out really in the wellness space for our patients, but actually now there are more and more studies looking at it as a valid treatment for depression and anxiety, specifically.

The psychotropic medications-- you heard about the algorithm. So I'm not going to spend too much time there other than to give you some more ideas what to track if somebody isn't responding. Then care management is key, and we'll talk about what that entails. And last but not least, we'll talk about the different ways behavioral health is actually integrated into care.

So behavioral therapies, cognitive behavioral therapy, what's so important about that is if it's adequately delivered it actually has a 70% response rate after three to six months of treatment. And these are patients who are not being put also on a psychotropic medication. So that mild to moderate anxiety and depression can have a very strong response to behavioral therapies and with much less side effects.

And those effects-- because what are you doing? You're teaching them coping skills, or the cognitive behavioral therapy is teaching them coping skills. I never met a pill yet that teaches patients how to cope with depression, with stress, with anxiety.

And so even if you decide to use a psychotropic medication, there's still value in thinking about how can I access these kinds of coping skill trainings for my patients? Cognitive behavioral therapy-- and again, applied vastly to many psychiatric disorders-- so we're basically-- the underlying theory here is that how we feel is connected to what we think is connected to our actions or behaviors. And then with that, we also get bundled in their physical sensations-- pain, poor sleep, fatigue, lethargy, muscle tension. And this is a vicious cycle.

So behavioral therapies target what people can do. If there are things in their control, to change their behavior to help them feel less distressed, sad, anxious. Or, if it's especially things they can't control, how can they change their thinking, their catastrophizing, they're unhelpful beliefs, low self-esteem, self punishment themes. How can you change their negative thinking to influence their mood and help with behavior.

Study after study in chronic pain shows that if you have chronic pain of any kind for long enough, you will have depression. Your brain will get depressed and or anxious and often both in different ways. And once you have that happening in your anatomy your perception of pain will be intensified automatically. So it is really important to think about it also as an ancillary treatment for our chronic pain patients.

So I'm going to jump right to the chase. We hear this all the time. Well this is great, but I can't access mental health providers, or it takes six to eight months to get an appointment. So one of the solutions that we are working on-- we are actually currently testing, and I'm going to give all of you an opportunity at my last slide to be participants in this-- is digital tools. So digital tools that can be prescribed by any medical provider and that comes with, not just the tools themselves, but a UPMC coach who helps to motivate these patients and track their progress and also flag risks.

So digital tools you know they need to have appealing content, they need to be easy for our patients to use. You need to deliver them in a way that people interact with their digital gadgets. Which we are all, I mean and doctors I think are really bad offenders, we probably are all sending two to four hours, and that's a conservative estimate, on our digital gadgets a day. But we don't do it in 50 minute sessions. We actually do it in two to six minute soundbites, and just get back to it and get it back to it and maybe even briefer.

And so we need to deliver these tools in the ways that our patients are most likely to become engaged and then activated to use them and practice them. And last but not least, what the digital tools that-- especially now we're not talking about just wellness or stress, we're talking about as a treatment for anxiety and depression-- there needs to be a feedback loop to the provider so that you know is your patient using, is your patient getting better, and if there's an escalation that there's a way to have coordination of care. So our digital tools that we are developing right now teach in those six-- actually two to six minute sound bites relaxation mindfulness skills, the cognitive skills to change those negative thoughts, behavioral skills, exposure exercises for anxiety patients, problem solving exercises for depression patients, and a whole list of distress tolerance techniques.

They are guided by non-clinical coaches. So coaches actually message within this secure-- HIPAA secure app, they message the providers and the coaches are UPMC hired coaches. We call them paraprofessionals. So they have some background in behavioral health, usually undergraduate. They go through very extensive training, and then they're supervised by licensed mental health providers.

And the interaction with the user is not real time, texting back and forth. It's two to three texts a week in an asynchronous mode. And some users do text back and some users like to have the educational information or the good job or the reminders to go and use the apps. And these kinds of tools actually work the best if patients are willing to take that six to eight minutes of time to learn a technique and use it at least three times a week. And the literature on these apps is showing that if somebody is likely to use this, they're most likely to use it and benefit the first two months of prescription. After that, no matter what the coaches or the doctors do there's very little further engagement.

And again, just as I said, in this app our tracking outcomes and risk escalations. So this just gives you some sense of the patients have these techniques that are queued up for them. There's an anxiety path, there's a depression path, and the coach actually has the ability to import techniques from anxiety to depression and depression to anxiety based on what is discussed in supervision.

Then, the "in the moment relief," that middle screen of these techniques is something that is available to them as a library. All of those techniques are two minutes long. They're all very high quality audio. And they're giving patients, basically, a way to ground themselves, especially if they're in a crisis or an unsafe mode.

And then the other thing that is so important with this app is teaching coping skills is great. But unless you can anchor it to the patient's problem list or the goals, not just-- it has to be much more than just number reduction on a GAD or page nine questionnaire, it really doesn't have that value of the sustainable change-- changing their behaviors, changing their thinking in a way that becomes a habit. So the goals are tracked and, again, the coach prompts all of this. This is all then fed back as reports, right back into Epic where it's currently in our system being ordered.

The coaches dashboard-- then the coaches can track everything that a user does, so they're minutes of engagement, what techniques they've done. And embedded right in this digital tool are GAD-7 and PHQ-9, so anxiety and depression screens that are tracked within the app about every five to seven techniques. So how is this working right now?

And we've actually piloted this in some of our CMI primary care practices, and that's going to be vastly expanded. We've actually piloted it in my inflammatory bowel disease medical home, which I'll end with telling you about the model and what our findings are. But basically, a patient comes into the office, has a tablet, is screened for anxiety and depression, and then the system triggers a best practice alert to the provider if a screen is above a certain score. And that best practice alert suggests that you might want to consider this digital behavioral tool.

It's ordered just like you order a medication and the patient leaves with sign up materials. And actually, we're finding that if the patient leaves downloading the app right there in the office, it's even better and they can start the program immediately. And then again, their progress is fed back through the electronic medical record to the providers.

And using this tool-- and some of this we published and some of these publications will be coming out soon. But basically, we're seeing significant engagement. So both in primary care and inflammatory bowel disease, so sub-specialty care, but across the board 75% engagement. So if a doctor asks you to use this, 75% of the patients will download this app and complete at least three techniques. And again, that's now what we see when even when you do find a mental health provider, and you refer them to a mental health clinic, those rates are much lower.

Also, significant reduction in anxiety depression already showing a strong signal at two months of use. And what we were excited about, because I have behavioral social workers as part of my medical home team, is there was an increased efficiency of my behavioral staff by 68%. They now no longer have to meet with patients every two weeks to teach them coping skills. They can allow, really, this tool to be their digit-- their extender. And they're monitoring the progress, and in some settings it's the primary care docs directly that are monitoring the progress, but they don't have to take the time to do the training.

So what's on tap in 2020, so this is not a long wait this is six months from now, we are developing-- and this is really an initiative that is being led by our health plan but being made available to the UPMC system-- is that we are taking a multiple-- I mean, we have-- some of you might have heard of "Beating the Blues." "Odyssey" is a wellness app that has some stress management and weight management and physical exercise components. "Brain Manager" is what the digital tool that I just showed you is currently called. But all of this actually is going to be renamed, "The Better You."

And, "The Better You" is going to be a one stop shopping, so that's easy for you as the provider to look at. OK, what are the digital tools that we have available, and how can I access them for our patients? And the one that's not up here, that will also be part of this, is a behavioral therapy a digital behavioral screening and therapy for insomnia. So again, these are all available.

2020 will be when we're going to be asking for interested practices. And they can be in community settings, they can be linked to UPMC, but we would like UPMC, anybody who's linked to UPMC in some way, to be willing to pilot when this goes live in the early part of 2020. So if any of you are interested, the best thing to do, because I did not put my email on this, is please email me. It's my last name, Szigethy, and the first initial, E at UPMC.edu.

Email me your interest and then my team would get in touch with you. And again, we're expecting, by the spring of 2020, to have this available to all three million health plan members. And then we're going to be working on the mechanisms to expand past patients who have UPMC Health Plan Insurance. For these trials, it's going to be as insurance neutral for testing these cases.

All right. Going back to psychiatric medication management, I think Ellen touched upon, but I think it is so worth-- if there's information here, much of this information she gave you in terms of what are the most common antidepressants. But every single one the side effects appear before the therapeutic effects. And I think if there's one message, when you start any psychotropic agent, it's to set patient expectancy accordingly so that they can go ahead and use these medications and not quit in the first week, and basically give it a chance to be therapeutic.

Now when you have limited or no treatment response, and let's just use depression as our focusing lens but this really would be for psychotropic medication used for any kind of condition, intermittent adherence is the most common. The brain doesn't like that. The brain really gets sensitive when it has a medication every other day. Or oh, I forgot it so now I'm going to take a double dose to get back on it. And I think what is important is to have the side effects first discussion with your patient.

There are, and relatively rarely, genetic rapid metabolizers. But again, the two most common reasons that patients aren't having a response, or limited response, is they're not taking it regularly-- daily-- or they're not at a high enough dose. And I gave you some of the dose-- the dose-- max doses that are FDA recommended.

Now we move into the diagnosis not being correct. Bipolar depression actually will get worse, if you don't have a mood stabilizer. Depression that's due to a medical condition, obviously, has limited response to psychotropics. And the substance-induced mood disorders, while there might be a role for an antidepressant, are not going to have as robust response. So again, having a way to screen for these yourself, or know what your backup plan is for a psychiatrist.

So this is a little different from Dr. White's talk. My algorithm, and also having much literature support for my patients even though I am a practicing psychiatrist, I use behavioral interventions first. And only then do I go to a psychotropic med. Now of course if it's a severe depression, there's comorbidity, there's other reasons that you heard about in her talk why you'd want to have a psychotropic medication in addition, then I add it. But you have the algorithm.

And as she said, there really is no one antidepressant or class that is better than the other. Unfortunately, it really just takes systematic trial and error. Generalized anxiety disorder-- 40% of patients with depression have this. It's excessive worry and at least three of these pretty general symptoms. So most of us meet this criteria on a bad day. But the key here is that you're having these symptoms for at least six months, more days than not, and it's beginning to impede your functioning.

First line, most evidence for generalized anxiety disorder-- cognitive behavioral therapy followed by the SSRIs and SNRIs. By the time you're getting to the third line agents that are most supported in the literature, you probably want to be thinking of a behavioral health or psychiatry collaborator. And it's important in the third line that not all of those have FDA indication for generalized anxiety disorder, but all of them have efficacy data.

Panic disorder, another collection of really many different physical symptoms that can affect basically the whole body associated with that feeling that they're losing control, they're going crazy, feeling like they're going to die in that moment. And any four of these symptoms would qualify you for panic disorder. And why is that important to parse out? And I should say actually, that after age 45 a brand new onset of a pure psychological panic disorder is very rare. So after your patients are 45, think of an organic cause that could be causing it.

And the other thing that's so important, and why you really want to ask about panic attacks and panic disorder is there is a significant increased risk of suicide and substance abuse, id you are depressed and also have a panic disorder. Cognitive behavioral therapy-- here, significantly favored over medication because you need to retrain their brain, literally, to stop setting off these false alarms. It takes longer and exposure is a critical part of this therapy. And on cognitive behavioral therapy alone or, if needed, combined with the medication. But in panic disorder the state of the evidence now does not support starting only with the psychotropic if you really want to optimize treatment.

And then if the medication works here, I know you had some discontinuation advice from Dr. White, that you want to take longer with these patients. Care management-- having somebody there in the office or access to somebody basically, that tracks the progress of the treatment and helps with psychosocial issues, such as disability such as coordination of care is important. So medical models of integration of behavioral health are important to consider because of the medical problems, nor the psychiatric problems do not occur in silos.

I know you got a lot of background from Ellen on collaborative care so I'm not going to cover that. I did want to talk about enclosing a model of care that also integrates behavioral health here, both a behavioral therapist-- social worker-- and a psychiatrist and often co-located. And in a medical home model, in a patient-centered medical home model, you actually follow the patient over their lifetime longitudinally, and you're really thinking about preventive care not the reactive care and using the best available evidence and technology.

So most of the evidence in the literature has-- collaborative care has been studied the most. It's been around the most. Medical home models are really just starting to evolve.

And it really has shown very strong clinical, and now starting to show cost saving effects for depression and some for anxiety disorder. I think the important thing is that it takes a while. So when you get these models up and running, it can take up to two years to see clinical effects.

And it can see it can take actually up to three to four years to see financial benefits. And I think that's important. And the impact study is probably the most quoted study, showing $6 of savings for every $1 spent for collaborative care, and that is the integration of that behavioral specialist.

So in terms of the patient-centered medical home, as was stated in my introduction, we have developed one of the first sub-specialty medical homes for patients with inflammatory bowel disease. Inflammatory bowel disease in any medical system is one of the most expensive diseases costing the 3 million patients who have it across our country-- spends $6 to $30 billion in direct and indirect costs annually. And again, depends what is measured.

And a really large study, looking at 63,000 patients, just showed that mental health conditions were one of the drivers of those costs. Here at UPMC, we have about 4,500 patients with IBD, and 30% of those patients are accounting for 50% the cost. And guess what? There's very high psychiatric comorbidity in most of those 30%.

Just like other diseases, higher rates of depression, anxiety disorders, so 30% in IBD if you take any kind of mood disorder. And again, growing number of studies, and you can really look at any chronic illness model here, showing that it affects medical outcomes, medical utilization, and medical costs poorly. So our model is set up in our digestive disorder clinic at Presby. And we have multiple gastroenterologists, we have nurses and nurse practitioners, a dietician, a couple of social workers, and then myself as a psychiatrist has a piece of my time there.

And in this project we were able to do this project in collaboration with our health plan, who is helping us study to make this effective care. And we're going to be rolling it out in other chronic disease models across our system. So this one is for patients with inflammatory bowel disease.

So in terms of how our behavioral integration works, actually it's them the medical team that starts the screening process. And then if they detect a signal then, actually the first thing we're doing in our care model is using our own digital tools that I told you about. And then, as a step up, access to our social worker. And then only if patients are either very severe complex or not progressing do they access a psychiatrist. So it's a very stepped care, algorithmically driven model.

And we're showing great clinical outcomes, reduced utilization, and-- one of the areas that we specifically targeted is the opioid use in our patients. These patients have surgeries, they have chronic abdominal pain, and were able to show a significant reduction in opioid use, as well. So I know that I went through a lot, and again this was an exposure to what's possible.

But I hope that I'm leaving you with the idea how critical it is for you to be screening for at least the common mental health disorders, having a plan of action, and whatever you are doing that you are doing it in a data driven way, and really treating these patients to target. And then, hopefully, taking advantage of the digital tools that are there to help you that are just on the horizon. So thank you.