**DNA: Discoveries in Action Season 3 Episode 5 Transcript**

**Dr. Carrie Fry:** So I think historically, mental health has been moralized. Having a mental illness has been sort of a moral failure. All you really need to do is pull yourself up and stop being so sad or just be happy and be grateful for all that you have in your life.

**Dr. Colin George Walsh:** A study came out last year from a team of researchers in France that showed that eight and a half percent of the people who died from suicide in that study were seen in a healthcare setting on the very same day that they died. We really hope that for those individuals and individuals who are at that risk that what we call imminent risk, which means that that risk is really acute and someone has a plan and intend to act on it, that if we make any small difference, we're hoping that we might prompt a conversation on that day.

**Dr. Alexandra Bettis:** When you're a parent, nobody gives you a handbook and says, "Here are all the different types of mental health problems and their treatments and what you're supposed to do about it," and the emergency department just doesn't have time to sit down and educate every parent on that process.

**Clark Buckner:** Hello there. This is the fourth and last episode in a collection about the role of mental health in our physical health, our lives and our communities. We've heard a lot about the shortage of treatment options and how the plethora of headwinds can make life feel like you're staggering through a strong wind tunnel, and sometimes it gets to be too much for some people.

I want to let our audience know that suicidal ideation will be part of today's discussion about high tech tools that are advancing work toward prevention and providing realtime community support. However, if that's too raw for you right now, we understand, and you can find a recap and resources at listendna.com. If you are in crisis, please call a hotline.

There are many people at Vanderbilt University Medical Center examining the factors that lead to suicide ideation, pathways to predictive mechanisms, the correlations between identity and policy and post-ER visit interventions to help parents of children who are in the throes of crisis. There are so many more because this is vital work: suicide is the 12th leading cause of death in the US.

My name is Clark Buckner, your host of Discoveries in Action. This show is about the big ideas and breakthroughs happening at Vanderbilt Health. Our drive to discover, care, learn and share is in our DNA. It defines who we are just as your DNA defines you.

Let's meet today's guests.

**Dr. Carrie Fry:** Hi. My name is Carrie Fry. I'm an assistant professor in the Department of Health Policy, and I study the ways in which health and social policies affect people with mental health and substance use disorders. So how we got to the mental health treatment system that

we have in this country, a series of accidents, happy accidents, unhappy accidents.

**Dr. Alexandra Bettis:** Hi. I'm Alex Bettis. I am an assistant professor in the Department of Psychiatry here at Vanderbilt, and I am also a licensed clinical psychologist by training. So my day to day right now is mostly spent doing research on understanding adolescent suicide and how we can prevent it, but I also see patients and treat adolescents who are struggling with things like depression, anxiety or suicidal thoughts and behaviors.

**Dr. Colin George Walsh:** My name is Colin George Walsh. I am an associate professor in biomedical informatics, medicine and psychiatry and behavioral sciences at Vanderbilt University Medical Center. I know that's a mouthful. And my work is focused in applied predictive modeling to prevent challenging problems like suicide, opioid overdose and others.

The state of our work today is we have spent the last six years developing, testing, replicating, which means testing in new settings, algorithms to try to predict to enable prevention for one of the toughest problems in healthcare, and that's the problem of suicide. What we're doing today is taking our risk prediction models, which we've published and have been covered by the media a number of times, and actually again making those useful. The way we're trying to do that is by prompting action right at the point of care. So to take our algorithms and then to inform a clinician who's about to engage with a patient and talk to a patient they were going to see anyway about a topic that is sometimes difficult to talk about. That's the topic of suicidal thinking or even suicide attempts, which may be in someone's past. And what we're doing is using those algorithms to prompt action and consideration by clinicians.

And where we are today is setting up a pilot for that technology, which we're launching this year, to essentially inform a conversation and hoping to see that our providers, our clinicians who are informed with this extra piece of information that they didn't get yesterday might engage a little bit more frequently with patients about this difficult but very important topic, the topic of suicide prevention.

So our approach from the beginning has been to try to use data that we're collecting anyway. These are routinely collected healthcare data. And when I say routinely collected, I mean the types of data that are collected in healthcare encounters really around the world. Diagnoses people have, the medications they've taken, the types of visits they have with our health system, but what's absolutely pivotal, what we have learned over the last few years of doing this is the algorithm alone doesn't solve the problem. Something I say a lot, prediction does not equal prevention. Along with prediction, we need to think about education, we need to think about the interventions and the evidence for those interventions, which interventions work best, which interventions might work best for a given individual.

The second part, our hope as we've built our program, is that we can build trust further, one, by talking about a stigmatized and challenging problem, and that's the problem of suicide in this case. And two, as we build trust in the tools and systems we are building to try to make care

better, our hope is to improve those tools, and we only do that through feedback and through trust with those who are actually the recipients of any direction we might be trying to give them.

One of the challenges with our approach is, and I say this a lot, is that one model does not fit all, which means the same set of predictors may not predict risk equally well in all groups. So work that's still underway that we've really been focused on in the last year or two is trying to optimize our model further for groups that may differ from the general population of a medical center, simply because each of us is an individual, and so what one model sees describes a problem but it does it in a more general way. And our goal longer term is to have a risk prediction approach that was more tailored for individual groups that need specific attention.

In the short term, our hope is that an approach like ours with risk models will prompt a conversation for someone who is suffering, who otherwise might not be asked about it, either because a clinical visit is too busy, there's too many other things that someone talks about or because the person is uncomfortable. This is a concept called covert distress where someone may actually be suffering but it never comes out. And if they're never asked about it directly, compassionately, but clearly about a particular problem which they may actually be willing to share if they were asked. That's our short-term goal.

Certainly, longer term and something that I think these algorithms are actually relatively good at is we again are only looking at data that is already in an individual's chart, but it's those patterns can be so complex that a person with unlimited time and resources can look at every data point, but they may not be able to put all those data points, the thousands of data points together to come up with a risk probability or risk prognostication that's trying to make a forecast essentially that gives them a sense that this person might be at risk.

And certainly, longer term our hope would be, and I think there's some evidence to say this, though I think some more work needs to be done in this direction, that patterns that are not necessarily the clear typical pattern if you looked in a textbook also may suggest that the individual is may be at increased risk. So I do think longer term, there's a role for these types of algorithms to direct risk attention and prevention conversations for individuals who don't, in your example, may not necessarily know even that they're at risk themselves and may not realize that they've reached that point, but it may be something that an algorithm can help us pick up.

I think the last piece of that, and this is something we haven't moved in this space yet, the last piece of that is to be able to get input from others, from the patient directly themselves as opposed to what's in their healthcare record or from their friends and their family members, but that's work we haven't done yet and we hope to do in the future.

**Clark Buckner:** Have you ever looked over at someone and wondered, what are they thinking about, where their mind wanders? Parents love getting a glimpse into the inner world of their children, but they can never quite fully know what they're thinking or if something is haunting them. And children and teens do struggle with the covert distress that Dr. Walsh talked about.

As we heard on reading, writing and anxiety two episodes back, many kids don't want to worry their parents or think it's their burden to carry. Let's hear from licensed clinical psychologist and researcher Dr. Bettis.

**Dr. Alexandra Bettis:** What we've seen over the past decade or so is a pretty steady increase in rates of suicidal thoughts and behaviors among adolescents and young adults in the United States. So what that means is we have many more kids who are experiencing mental health crises. We know that many teens don't get mental health support, and that means that sometimes it reaches a crisis point because they haven't gotten treatment early on, and that leads them to come into the emergency department. So along with increasing rates of suicide related thoughts and behaviors in teens, we're also seeing higher rates of visits to our emergency departments across the US for all types of mental health problems.

So suicide-related problems are certainly one of the more common reasons that kids might end up in the emergency department for a mental health crisis, but that's not the only reason, so we also see teens coming in with aggressive behaviors or anxiety or other types of mental health problems. So emergency departments are really seeing the full spectrum of mental health problems in kids and teens.

The emergency department was not designed to be a mental health treatment facility. It was not designed to serve this particular population of adolescents, but it increasingly is becoming a place where it needs to be that for them. It needs to serve as a place that can at least evaluate and make a decision about what needs to be done to support these kids as a next step. So oftentimes, emergency department providers are describing feeling really overwhelmed and really under prepared by the number of families that are coming in with a primary mental health complaint rather than a medical complaint.

So hearing maybe from someone or from your child that they think they need to go into the emergency department because they're afraid that they're not safe, that's the first really scary experience for parents. What we know is that oftentimes, the emergency department is a family or a parent's first contact with a mental health professional, which can also be extra scary. It's the unknown of what's going to happen next. Once you're in the emergency department, oftentimes you're waiting for many hours before you're going to get an evaluation because that's just the way emergency rooms function, and whoever is the highest need is going to be seen first. And oftentimes if it's not a medical emergency, you're going to have to wait a little while.

Then someone is going to talk with your child and talk with you, and once they're told you're safe to go home, I think for parents, that can be both a feeling of relief and a feeling of real fear and being overwhelmed by the idea of, okay, what next? I came in here wanting some answers, and this is the answer I've been given and that's scary to me. Emergency rooms aren't designed as treatment facilities. So they do an assessment and an evaluation and they can give parents recommendations about what to do once they leave, but they're not really there teaching parents skills for how to monitor their kid, teaching parents skills for how to navigate what comes

next. So it is a pretty common experience for parents to feel a bit anxious and even sometimes confused when they leave the emergency department and are told, "You're okay to go home. You need to go find a provider out in the community."

Unfortunately, we know that large numbers of parents will not follow through and kids won't get connected to care. So data is pretty variable but suggest that anywhere from 40% to 50% of people who are discharged from the emergency room will never or will not connect to outpatient mental health support. And there are several reasons that that might be happening, so there are some structural barriers in place that can make it really hard to access mental health support, especially if it's not something that you're familiar with. So parents might be given a list of providers or programs that they can call and are told to make an appointment with, but oftentimes they might call and the program doesn't take their insurance or they don't have an opening for another month and a half or it's no longer virtual and it's an hour and a half away from where the family lives.

So once you start hitting some of those barriers, it can be pretty discouraging, and it can be hard to know what to do next if you're not familiar with how to navigate mental health support. One example from a parent that we interviewed about their experience in the emergency department has stuck with where they left the emergency department on a weekend, were told to make an appointment with a day treatment program for their child. They interpreted what the recommendation was – if they showed up the next day for the appointment, that their child would be able to be seen. So this parent took the day off work, after already having taken the day off work to take their kid into the emergency room, showed up at the treatment program, and the treatment program said, "Oh, no, no, no, you are supposed to call. You have to do a screener. We have to get you on the list. There's a whole process before you can be seen."

And this parent was left, not only having had to take extra time off work, which was very stressful for them, but also feeling like, "Wait a second. That's not what I expected. What am I supposed to do next? How long is this going to take?" Feeling really frustrated. And those types of experiences when they start to accumulate over time can be really defeating and can end up at a point where a parent just isn't able to connect to services or doesn't end up connecting with services for their child.

**Clark Buckner:** Dr. Bettis has a fantastic interventional pilot going on right now that's trying to alleviate that burdensome "what now" for parents. She and colleagues have built a text messaging system that parents can opt into in certain acute mental health crises that bring their child into the emergency department of Monroe Carell Jr. Children's Hospital at Vanderbilt.

**Dr. Alexandra Bettis:** We have parents who can come in from 30 minutes, an hour, two hours away, even further. There just aren't that many resources available, especially to our families that live in rural communities that are really equipped to be able to assess mental health needs and make recommendations. So we are designing a text messaging based intervention. The reason that we chose text messaging is that it's really a cost effective and accessible tool that

parents have said that they would use and would be interested in using. Many parents, when we talk to them about this program and what they might want in it, said, "I'm not likely to go into a separate app just for this and go in and engage with content, but I think if I get something sent to me, I'm much more likely to open it and take a look and see what you have to say and engage with that material."

We also know from research in other areas that have used text messaging to deliver interventions like this that it tends to work well and people tend to engage with that material. So that's why we settled on that type of avenue to deliver the information.

We are in the process of doing is really focused on building a digital support tool for parents when they leave the emergency department. So for those parents who are told, "Your child is safe to go home. Here's a referral. See you later." We want to provide a resource that can support them in the period between when they leave the hospital and when they get connected to care, with the goal of giving parents more information about what resources are available to them and how to navigate those resources, really something we call mental health literacy, giving them more knowledge and more power about how to navigate this mental health landscape because when you're a parent, nobody gives you a handbook and says, "Here are all the different types of mental health problems and their treatments and what you're supposed to do about it." And the emergency department just doesn't have time to sit down and educate every parent on that process.

And then the second piece of this intervention that we're developing is really designed to support parents' own skills and self-efficacy in managing their child's mental health at home. So some of that will involve coaching parents around how they monitor their kid's safety, how they notice signs that maybe their child is not doing well or starting to go towards that crisis point again, so maybe they can intervene earlier. But also helping parents manage their own emotional responses because it can be extremely stressful and scary to watch your child struggle, but when your own emotions start to rise and get in the way, that can actually make things harder both for you and for your child.

So we are focused first on the part when they leave, so we'll get them set up on the tool while they're in the emergency department, tell them a little bit about it and what they can expect from it. And then for the first month after they leave the hospital, we'll be sending them information via text messages and seeing if that works to help them connect to care and if it helps to keep them out of the emergency room. But a second step that we're really interested in is how can we utilize those long wait times in the emergency room to give parents more just information about their child's mental health. So certainly, a second piece that we're really interested in that I think could be a really good way to use a lot of downtime.

**Clark Buckner:** That text system could be a glimmer of hope in the dark moment of an ER visit. Often, that dark moment evolves into a season that's clouded with esoteric and complicated insurance policies or prices that put therapy out of reach or exorbitant wait times or dozens and

dozens of miles between a child and a therapist. Those same obstacles exist for adults who need treatment, too, and frankly, it's the tip of the iceberg of inaccessibility. And that's Dr. Fry's bailiwick. Her research examines the complexity of the payment system, underserved populations and the important distinction between mental illness and substance abuse care. Like her colleagues in the Department of Health Policy, two of whom joined us on the social determinants of wellness episode, she has an eye toward changing policy and illuminating how pervasive misconceptions of mental health mix with racist and classist structures and ideas.

**Dr. Carrie Fry:** So I think historically, mental health has been moralized. Having a mental illness has been a moral failure. All you really need to do is pull yourself up and stop being so sad or just be happy and be grateful for all that you have in your life. Things aren't so bad. Right? The good news is, I think, there's this series of commercials for online therapists right now that's like, it's okay to ask for help, like the guy weightlifting, but these are conditions just like diabetes and hypertension where there's a biological underpinning to disease. Someone can't just happy themselves out of depression. Someone can't just get a job themselves out of schizophrenia. These aren't about your morality as a human being, but we've historically attributed moral value to the presence of a mental health condition.

So I would say that a side quest or a treasure hunt to find a mental health provider that fits your needs when you need it is a totally accurate description of this. It is like, "Let me go to my" ... If you have insurance, so conditional on having insurance, which not everyone in this country has. So if you have insurance, let's go to your outdated provider network and look up the therapists and then let's call them and see which ones of them are taking on new patients. And then let's just cross our fingers and hope that they have the skills that meet our needs and that can help us work through whatever is going on in our lives.

I try to understand how societal barriers limit people's ability to live their full lives. Specifically, I try to understand how things like health insurance, access to care keep people with mental health conditions or substance use disorders from being well, from getting the treatment that they need. The two largest mental health providers in the US are Cook County Jail in Chicago and Los Angeles County Jail. That is because when we de-institutionalize folks without proper supports in the community, we just decided to re-institutionalize them in jail. People with mental health conditions, substance use disorders are overrepresented in our criminal legal system, being jails and prisons.

Studies that show that people from racialized or minoritized communities tend to have less access to mental health providers, to substance use disorder treatment, even if they have insurance. There is implicit bias in providers along dimensions of racial identity, but I would also say that because stigma is so pervasive in our country and in our system that similar to racism, even mental health and substance use disorder providers aren't immune to their own stigma, their own biases, their own prejudices toward people with behavioral health conditions.

This is what I do for a job. I study these issues. I study these systems, and I find myself at times

having to check my own bias, my own prejudice toward people who have a mental health condition or who have a substance use disorder. It takes a lot of work even for providers to work their way out of the culture, the system that we are steeped in that is just rife.

**Dr. Colin George Walsh:** One barrier to prevention in mental health in general is that there is stigma and there's stigma not as much around the treatment though, and I'm a firm believer that mental healthcare is healthcare, though I don't know that universally our healthcare system works that way just yet. I hope to see that in the future. But one barrier to that prevention effort is that the diagnosis of a mental illness is stigmatizing for many individuals. It can be seen as a label or it can be seen as deterministic that it sets someone on a path that there can be no change from. Some of the treatments that are portrayed in the media also, because it's in the media, are more sensational than they are in reality. So ideas of electroconvulsive therapy or electroshock therapy is what it's called popularly, which can actually be extremely effective for very severe cases of depression, people may have perceptions based on that because of what the media portrays that actually gets in the way of their treatment.

What we have found, what the gap we're working on now, is simply getting people to the point where they can have a conversation and it's a conversation that it does not feel stigmatizing to them about the diagnosis that they may or may not already have or may or may not know about or even if they're acutely suffering, just simply creating a space for them to feel comfortable sharing that suffering. We think it's a really important step to moving away from stigma and moving toward not just better mental healthcare but better healthcare.

Clinicians of various backgrounds will understandably have varying degrees of comfort dealing with challenging but really critical problems like suicide prevention. In medical training for physicians, I went through that training myself, I went through residency and then as a practicing doctor, suicidality, suicidal thinking would come up and it would often come up unexpectedly. One of the big challenges we're trying to bridge, and we have wonderful partnership at Vanderbilt and much of that partnership actually comes from the Department of Nursing, wonderful collaborators like Jessica Stroup, Jill Shelton, who have been leading the charge in their department, which is ambulatory neurology, on changing the way providers and nurses in their case actually engage with their patients when they're at risk, whether they're on the phone with those individuals or whether they're right there in clinic. That's certainly true for physicians as well.

Some physicians, when they see this problem, are uncomfortable and there is unfortunately sometimes a tendency to avoid challenging problems. Certainly in one of the most busy and critical spaces in healthcare, which is the primary care practice, there are efforts to improve our ability to deliver that suicide prevention and a major part of that is improving competency, comfort and really trust that if I identify this risk, this is something we hear a lot from our provider colleagues, if I identify someone at risk, am I going to be able to get them to the resources that they actually need to help them? There's a common misconception in healthcare, which is that asking someone about suicidal thinking or how they're doing or their mental health in general

will prompt something in them, will trigger them to have symptoms or to do something that they will not do already.

There is a lot of literature and very strong evidence to suggest that in a healthcare environment where patients are being directly and clearly and compassionately asked about how they're doing, there's no evidence that those questions are going to increase the risk that they will go off and now have suicidal thinking or a suicide attempt that they were not going to have before. So we know that screening firmly, directly and, again, compassionately in a healthcare encounter where there are resources and there's someone, even if it's a difficult conversation for them to have, there are resources for a clinician to offer something to that individual does not increase the risk that they're going to then go on and have a suicide attempt they were not going to have yesterday.

**Clark Buckner:** The pandemic bumped the opioid abuse and overdose crisis from the front lines of the national discourse, but out of sight and out of mind is certainly not a cure. It's not even a band-aid. Dr. Fry and Dr. Walsh are working on a project that explores how the fragmentation of behavioral health and, well, physical health systems, obstruct efficient, integrative, smooth care. You know emergency room systems probably don't talk to your primary care records. And if you've got a therapist, there's almost a guarantee those systems don't communicate to the ER or PCP. Then there's insurance, if you have it, and so on and so forth. That fragmentation is more than a muddled mess that causes a bureaucratic headache. It negatively impacts lives.

**Dr. Carrie Fry:** Colin and I have worked on a project that uses some pretty cool data here in Tennessee to predict opioid overdoses, very similar to the suicide prediction work that he's done. In this current project, we're thinking about how the fragmentation that exists in our mental healthcare system, so the fact that the mental healthcare system is oftentimes completely separate from the physical healthcare system, increases the likelihood that someone has a negative health outcome. Whether that's suicidal ideation, a suicide attempt, an overdose, we want to be able to quantify or put a number on the increased risk that these being separate systems imposes on people.

So since COVID happened in early 2020, we've seen a marked increase in drug-related overdoses among Americans. From April 2019 to April 2020, the number of people who died from drug overdoses grew by 25%, and from the same time period of 2020 to 2021, they grew 15%. We, in the past two years, have had the highest number of drug-related overdoses. In the US on record, more than a hundred thousand people a year at this point are dying from a drug-related overdose.

I think there are a couple of big drivers and reasons why we see drug overdoses growing since 2020. The first is that COVID had a market impact on people like the isolation, the uncertainty, the potential loss of income, the fact that initially we didn't even know what COVID was, how scary it was, what was going on. I think that drove some of it, but that's hard to attribute to the

increase in overdose death in 2021.

I think the other thing that's happening is that the drug supply is becoming increasingly contaminated with more lethal substances. So we see in almost all illicit substances a marked increase in these substances containing fentanyl or other synthetic opioids that are just deadlier than the products that people have used in the past. People often don't know that they're consuming fentanyl or something as potent as fentanyl.

**Dr. Colin George Walsh:** And through our work and partnership with the Tennessee Department of Health, this is work that we've looked at around opioid-related overdose prediction to, again, to enable prevention. We've been looking a bit at hospital discharge data to try to understand, are there hospitals that are actually treating the same individuals but because they're not sharing data and they don't necessarily talk frequently, they don't even know that they're treating the same patients? And are there opportunities for better coordinating care in the future such that healthcare organizations that are seeing the same individuals because, again, the person is what matters, if there are healthcare organizations who are treating the same individuals that there are opportunities to better coordinate care across those healthcare organizations. That's an opportunity we've been thinking about a lot in the last year, but there's much more to be done in that direction.

**Clark Buckner:** That proverbial game of telephone is part of the friction around parent-child conversations about suicide and ideation. Dr. Bettis has teamed up with colleagues across the country to examine how information comes to light and how to equip parents to have conversations that encourage and inspire more conversations.

**Dr. Alexandra Bettis:** So we have a second study. This is a collaboration with some colleagues, Kathryn Fox at the University of Denver and Taylor Burke at MGH. And we are really interested in better understanding how disclosures of suicidal thoughts and behaviors happen, especially in the parent-child context. So what happens when a kid tells their parent that they're thinking about suicide or that they've done something to hurt themselves, or what happens when a parent finds out about their child but they hear it another way? Maybe another adult tells them. Maybe they find something on social media or in their phone. We want to better understand how those conversations unfold because we want to better equip parents in how to respond in a way that's going to promote communication, that's going to promote safety, that's going to help encourage their child to want to tell them again in the future.

So we did a survey initially with about 1,500 teens who had experience, suicidal thoughts or behaviors in their lifetime and who had been in mental health treatment of some kind in their lifetime, and we asked them a whole bunch of different questions about when they had disclosed these types of thoughts or behaviors? Who were they telling? What were barriers that might keep them from telling people, and what were those experiences like?

What we heard from these teens is that they're most likely to tell their peers rather than an adult,

even though us mental health professionals always want them to tell an adult. And that two of the most common barriers that they said keep them from wanting to be honest about these disclosures are, "I'm afraid that you're going to tell my parent and I'm afraid that my parents going to get worried. So if my parent hears this, I'm afraid that they're going to get really worried and anxious and they don't need to be."

What we want to do is figure out how we can make it more comfortable for teens to tell their parents and equip parents with the skills they need to respond in a way that's not going to make the teen say, "I'm never telling my parent again." And so I think that that dovetails nicely with what we want to do in the emergency room because what we're asking parents to do is monitor your kid, ask your kid how they're doing, ask your kid if you're having these thoughts. But then what? We need to be able to give parents clear guidelines for then how they can respond in a way that's going to be helpful and not harmful to their kid. Not minimize what their kid is experiencing, but still take it seriously and help their kids feel heard and understood so that they'll tell people again in the future. Because we know that these thoughts and urges to engage in this behavior aren't typically a one time thing, but they're going to come back.

So parents are feeling guilt. What have I done wrong? Is this my fault? I should have done something differently. I should have seen this happening. They certainly feel anxious about what if my child does something serious to hurt themselves? Scared. So we hear that a lot from parents feeling like they just don't know what to do. They don't know who to turn to. They don't know who to talk to. They don't feel like they have a network of support around this. They don't know what's going to be helpful and they'll do anything, but they just need to know what to do.

What we have heard from teens when we asked them about their experiences telling their parents about these thoughts and behaviors is that sometimes parents can respond in ways that seem pretty unhelpful. So sometimes they would describe that their parent was dismissive or didn't really say anything at all. Probably from a parent's perspective, maybe they didn't know what to say, but from a teen's perspective, they're saying, "Oh, my parent didn't say anything. They must not care."

So there's a lot of work I think to be done to ... The internet. You're going to find a thousand different things and how do you know what the right information is? So some of that basic information about the mental health service sphere.

And then the last type of text message we're wanting to incorporate is more skills based, so giving a brief instruction on here's a way you might identify how you're feeling, using what we call a feeling thermometer. Are you in the green zone, the yellow zone or the red zone today? Here's what those might look like for you. Okay, practice now identifying how you're feeling at three points today. The next day, how do you think your child is doing? What zone do you think they are in today? Then the next step might be, okay, why don't you check in with your child and see what zone they're in? So really building skills with them around how do I know how I'm feeling, and how do I know how my child is feeling, and then how do I check in with them about

that, to start to be paying attention to maybe any changes in how they're doing over time and giving them a language for how to do that. So really information, getting information from them, giving them information and then building some skills.

I think it is important now because we have watched these numbers go up over time, and we haven't really been effective at stopping this increase in rates of suicidal thoughts and behaviors in adolescence. And it's been a goal for the field for a long time to figure out ways to effectively reduce suicide risk among teens, but we have done an okay job, but we've got a lot of work to do.

And so I think now, we probably should have done this 10 years ago to be honest, but now, we're at a point where I think it's becoming more and more acceptable to talk about these things. Teens are certainly getting more comfortable talking about mental health, talking about suicide in a way that maybe 10, 20 years ago that wasn't the case. So if people are now going to be talking about it, we need to be ready to do something.

Teens, when they're sharing with us that they're having these thoughts or that they've done something to hurt themselves or they're thinking about doing that, what they're really telling us is that they're experiencing distress and they need help. They need support. Things are not going the way that they want them to be going. They are hurting in some way, and they are asking us, the adults in the room, to figure something out and to do something to support them.

And one of the, I think, biggest ways we can support these teens is by making sure that their caregivers are well equipped to support them. Those are the people that are going to be spending the most time with them. Those are the people that at the end of the day are tasked with taking care of them and making sure that they're okay. So we need to be making sure that when we send them home with their parents that we're sending their parents home with the right skills to be able to actually support them in a way that's going to be helpful and effective because they deserve it.

**Clark Buckner:** We've heard about how these big thinkers are trying to help us – trying to change the world. I wondered, what do they need from us? How can we help them?

**Dr. Colin George Walsh:** I think that that is a huge problem that we as a field need to work on, which is better representing those diverse voices, the voices of those individuals who have what we call lived experience and certainly the voices of the survivors, who frequently know more than we certainly do at the healthcare system. A question we get a lot is we're relying on healthcare data, data collected through these routine encounters. There's an advantage to that, which is this advantage of scale, but there are big disadvantages too. We don't live our lives in healthcare systems. So much of the information about our health, our wellbeing, how we're doing, how we're suffering, how we're doing well, what brings us joy in our lives, we don't collect data on that when someone shows up to see a primary care doctor, for example.

So there is a tremendous opportunity for us to create a better conversation to inform our understanding of risk for those individuals so that we can ask the question, what can I do for this individual who may be suffering? As opposed to having an event happen and God forbid, we lose someone we love to suicide and we're left sitting there thinking, what could I have done?

One of the most inspiring parts of this journey for me over the last few years has been the responses that I've received from individuals in high school who are concerned about mental health and mental wellbeing for themselves and for their peers. And they seem to just get what we're trying to do. It takes them very little effort when I've had conversations with them to understand why we think this work is important. But what is absolutely incredible to me is how quickly they think about these concepts and how they apply these concepts to their own world.

And so I've actually had the opportunity from some of these amazing high schoolers to work with them a little bit and to get a sense of the problems that they're interested in and how quickly and how they resourcefully they can come up with really thoughtful solutions to hard problems that affect them where they live, in their schools, in their communities, in their towns, on their events that they enjoy doing. And so if I was sitting in front of a group of high schoolers to talk to them about our work, one of the most important things I would try to do is see it through their lens or really just be quiet and listen to them and understand their world, which looks very different than it does for me necessarily or even when I was their age because the world has moved so fast and changed so quickly.

So one of the best parts about this path for us and our team is that I'm just endlessly inspired by these individuals who are finding opportunities to help even with very limited resources and reaching out to researchers like me and hopefully reaching out to others around the world to try to solve these difficult problems in their own communities.

The call to action that I would share with listeners today is that we are all affected by problems like suicide, mental illness, mental health and wellbeing. We all have a stake in that and we all have a voice in that. And I would simply challenge people to say, what might they do? What might their voice add to a conversation about this difficult problem? We often hear from people after they've been affected, after they've lost someone that they love to a problem like suicide, but we would be extremely excited to sit down and really hear from a really rich group, the diverse, wonderful people who live in our country and really give them a seat at the table and talk with them about their experiences so they can teach us, so they can educate us on what they think is important. Because we hope our work in a healthcare setting, using healthcare data helps in some small way, but we know to really get in front of this really challenging problem, we're going to need to hear from a lot more people than that.

One of the most important principles of our work is that there's no prevention without partnership. We could build the best risk algorithm in the world, but if we haven't partnered with groups that might benefit from it or groups that can help us learn how to best integrate it into their workflows, into their world, we're not going to get very far. So one of the things that I

emphasize the most, the active ingredient in our research is not risk prediction. It's not AI. It's collaboration.

**Clark Buckner:**
It's collaboration. Yes, it is. This season of DNA is all about collaboration and conversation. That being said, thank you for being part of this four-part series on mental health. If you missed any of the first three episodes, they're all in your feed right now. And the big news is the season is just getting started. Our next collection of episodes will be exploring the health and healthcare impacts of the environment and climate change. It kicks off soon with a live conversation on Twitter, so follow along @VUMC_Insights for all the details. And subscribe to the Twitter newsletter where we're convening a community as we envision the end of this season.

Much like the conversation around mental health, this season is still being written. They are links to mental health resources and episode extras at listendna.com. And, of course, follow, rate and review the show anywhere and everywhere you get podcasts.

Until next time, Vanderbilt Health, making healthcare personal. As a reminder, Vanderbilt Health DNA Discoveries in Action is an editorialized podcast from Vanderbilt Health that isn't meant to replace any form of medical advice or treatment. If you have questions about your medical care or health, please consult your physician or care provider.