Welcome back to Nimble Youth, the podcast where we help parents navigate the emotional terrain of raising kids in today's modern world. I'm your host, Matt Butterman. Today, we're talking about a mental health crisis that is quietly and sometimes invisibly reshaping the lives of millions of young people, particularly adolescent girls. Anxiety and depression have been on the rise among teens for over a decade, but the numbers for girls are especially stark and very deeply concerning. Our guest again today is doctor Gretchen Hoyle, a pediatrician with twenty five years of experience and a focus on child and adolescent mental health.

We're focusing specifically on adolescent girls today in part because they're as related yet separate and, perhaps even more, extensive epidemic of anxiety and depression in teenage boys that we think warrants its own episode, and we'll be addressing that topic soon as well. Let's take a look at a few of the data points that highlight the scale of what's happening with teenage girls. According to the CDC's youth risk behavior survey, by 2021, '50 '7 percent of high school girls reported feeling persistently sad or hopeless, a sixty percent increase over the past decade and the highest rate ever recorded. That very same survey found that thirty percent of teen girls seriously considered attempting suicide in 2021, and that's up from nineteen percent just ten years earlier. And research published in JAMA Pediatrics shows that the rates of anxiety disorders in adolescent girls have nearly doubled since 2010, particularly among girls ages 12 to 17.

So these aren't just numbers and hard statistics. They represent real young people, daughters, sisters, students who are struggling under the weight of pressures that many of us never had to face at their age. Social media, academic competition, body image issues, identity development, and a post pandemic world of uncertainty are converging in ways that are making adolescents even harder to navigate. It's always a difficult time, but it's even harder in today's world. In this episode, we're going to unpack what's behind this surge in mental health challenges for girls.

We'll talk about some of the biological, social, and digital forces at play, and we'll offer insight into what parents, caregivers, and educators can all do to recognize the signs and offer meaningful support. We're calling this crisis of anxiety anxiety and depression in teenage girls the silent storm because it often falls under the radar of parents, caregivers, and educators. This conversation is an important one, and it starts right now. Before we jump in, however, we remind you that the content of this podcast is intended for informational purposes only and should not be construed as medical advice. While we aim to provide valuable insights on pediatric mental health, it's important to consult with a qualified health care professional for any concerns or questions regarding your child's mental well-being.

Please always seek the advice of your doctor or other qualified health provider with any medical concerns. So to start, let's discuss Doctor Hoyle. What's behind the rise in anxiety and depression in teenage girls. There there's some, a number of factors behind this rise. Can you speak a little bit about that?

Sure. So when I think of this problem, I kinda think about, like, the individual characteristics for folks who are struggling with anxiety and then what's actually happening from a societal

perspective. So for any individual, there are thing factors that can determine whether or not they're gonna have these kinds of symptoms, but certainly genetic predisposition is a big one. We talked about it in the previous episode. Age and developmental stage, especially for females.

I've tracked this data for a while within my own practice, and, there are certain predictable times in which I will see young females. For some reason, seventh grade is a big one. But and then also, you know, that continues into high school and stuff too. But, there are certain things that are happening at each age and developmental stage that I think just put more stress on that internal experience. And so that is a, you know, a factor as to whether or not any individual is developing anxiety or depression.

Gender, race, sexual minority status is also in the mix, for folks, and so that can put young women and girls at particular risk for developing anxiety and, of course, we, you know, assess that on a case by case basis. Right. Socioeconomic factors, educational environment, family dynamics, life circumstances, all of the things that, you know, are part of an individual's experience can, can have bearing on whether or not they have trouble with anxiety or depression. Right. But then there are also some, more complex but very stark, societal Yeah.

Causes behind this rise. And, we're gonna reference again, Jonathan Haidt's book called The Anxious Generation. Yep. And, there he lays the blame for a lot of the sort of malaise in mental health in young people, what he calls a switch from play based to a phone based childhood. So, we've both discussed the book before, but can you talk a little bit about his concept of how cell phone use is really driving this rise in anxiety?

Right. And so I would just say, I mean, this is a great book. I highly recommend it. I will, you know, recommend it to parents, or folks in this generation or really anybody who cares about children, takes care of children, teachers, pediatricians, anybody, because I think it is just extremely well written, and the data is very clear and well described. And so just a plug for that.

But, but, you know, he he sort of calls this the great re-wiring that happened, like, in probably the first half of the twenty tens in which we have shifted from a play based childhood, which is the experience that most of us had. Right? And so, and so, you know, prior to cell phones and electronic technology, that is not to say that there were no children who didn't get to play much in history. Right? So there have been children who have had all sorts of different experiences, you know, as far as They've had it all work in the field.

Correct. Exactly. I mean, and and all and but but I think that when people are age, and so this is sort of, I guess, generate generation x and, you know, the boomers and then to large extent, the millennials and everybody had what was considered, like, a play based childhood where the main experiences that folks were having out of a school setting was embodied experiences where they were with other people in person and learning how to relate to other people and and acquiring the knowledge, experiences, that we need to be able to, you know, to grow into and develop into, you know, functional adults. And so, what has happened though in folks who were

born, say, maybe after 1995, '90 '6 or so. So that's why I think what we think is generation z, that a lot of what has happened for them is there's been a shift more into a phone based And so that has some very significant ramifications when you think about that a lot of their experiences are happening in a disembodied state.

Right? So that they are not in person with someone else, that they are, interacting with people online, and that is a different experience for the brain Yeah. And for their development. And so, that shift is what he's calling the, you know, the great rewiring. And, for you know, by and large, that has not been helpful.

Right? So there are certainly things, you know, about cell phones that are, you know, convenient and helpful and, you know, you're able to communicate, for lots of logistical reasons. It enables some safety. Correct. Right.

But for children, it has the four fundamental harms that he talks about in the book about this new phone based childhood. One is social deprivation. And so, you know, this is the idea that, if you are doing one thing, it is hard to be doing something else at the same time. And so children are spending more time in the disembodied online digital world than they are in embodied experiences where they are, you know, with other people in real life. And I think, like, when this was first started happening, you know, with my own kids and they got phones and, you know, it was the type of thing where for parents, it was often like it's almost kinda comical because you're like, well, you're in the same you know, I have a friend over and you're in the same room with them, and you're texting them instead of talking to them.

And sometimes that's because they were on a group chat or something, but it was just like, oh, that's weird. But as it turns out, like, that's really not a great thing. Right? So they like, being able to look at someone face to face and and talk with them in real life is a very important developmental, you know, experience for your brain. And so phone based childhood has, you know, has has caused what he would describe as social deprivation because they're just not getting as much of that because they're spending more time on their phones.

Right. The second thing that he talks about in that book as a fundamental harm is sleep deprivation, which, wow, I am like, this is such a big thing in the clinic for me. Like, it is amazing how many kids are, you know, chronically fatigued and tired and, and that's sometimes what they will present with. And then the question is, well, you know, are you sleeping well? And, typically, they'll say, yeah.

I'm sleeping fine. And then I'm like, well, do you have your phone at night? And that is just a reality check that we need to have. I mean, parents, I think I think if, I think it is just sort of naive to think that having your for a child to have their phone at night, is a is a is a reasonable thing to be doing that they're not somehow that they are somehow able to resist the, the incredible addictive nature to engaging on their phone Right. Right.

When adults can't resist. Exactly. Exactly. It is not, it's just not realistic. It's not.

Yeah. Right? And so people are, I mean, kids are sleeping way less than they were. There are definitely kiddos who are up, you know, most of the night on their phone. They're not gonna tell you that because they know that the logical thing is to take the phone away.

Right. But I would say the logical thing is to take the phone away. And if and if I could, if that's the biggest thing that if I could redo it with my own kids, I would have, you know, been more aware of that. Sure. The phone based shot had also caused trouble with, like, fragmented attention.

And so the way that experiences are set up on the phone are so quick and changing all of the time that it makes it hard for our brains to be able to attend to anything for an extended period of time. Right? So that has really changed Right. As well, and just flat out addiction. Right?

So, like, what's happening on these devices, you know, it is intentional in that you're in that it is activating you know, we talk about dopamine. We talk about ADHD. Right. So dopamine is involved in the reward pathways in the brain. And, you know, a lot of what's happening on the phone is intended to activate dopamine in ways that, that there's an addiction quality to this experience.

And so any parent who has taken a device away from a child and had then had that child throw a fit because of that is probably aware that this is, you know, a true thing. Right? That there is an addictive quality that having it taken away is, it causes dysregulation. And those are all, you know, classic signs of addiction. So let's talk a little bit about why in this environment, in this phone based environment, adolescent girls are especially affected.

One of the sort of key factors that we can discuss, very visual, comparison with others that is enabled by social media platforms, things like Instagram, which are photo based. And, that can certainly cause a lot of problems for teenage girls. So let's talk a little bit about these gender specific vulnerabilities. Right. Right.

So it seems to be, like, with the data of the rise of anxiety and depression in adolescent females seems to be very connected with the paired technology of having a device that is in your hand and on your person all the time with social media. So those two things. So at one point, I don't know how well everybody remembers this, but, like, you know, those two things at one point were kind of separate. Like, you had a phone that was a flip phone that you could call, you know, the ambulance if you need to, but that quickly evolved into the smartphones that we all know now that allowed you access to the Internet. So it's no longer just a tool for, you know, necessity.

Right. Right? And so, and then you paired it with, social media, which, you know, at some at some points, you know, people were engaging on like, he talks about how you could you could get on social media in your family on your family's desktop, but that was a different experience because that that had some level of supervision where people were there. And then you kinda

knew what they were doing, and it was in a public sort of setting, and other people could see what the search history was. I mean, those things were boundaries that sorta kept it in check to some extent.

So then the paired technology of smartphone and social media has caused a lot of problems for girls and one of the and the big reason is because of the comparison that girls in that age group are going to be very susceptible to, sort of negative thoughts around comparing themselves to other people. Right. Right? And that's just a normal part of adolescence. So, like, I mean, I was seeing that, you know, in kids, you know, even before those two technologies became paired.

Yeah. Like, the like, adolescent girls, especially middle school age are gonna worry a lot about whether they measure up to other people. But now with the visual comparison on their phone that is, like, constantly available to them, and has, like, pictures of other people that are, of course, the highlight reel. Right. Right?

And they're aspirational. So, you know Correct. Yeah. This is basically a a, sort of omnipresent stage. Right?

Because it used to be that kids would go to school and and perhaps there would be this sort of comparison, the social dynamics at play there. But now they're at home too. Right? It's when they're at home and the volume is just a completely different like, you might have those sort of at middle school, you might, that kind of anxious feeling when you are comparing yourself to another person, and that may happen three or four times in the day or maybe more. But now you're looking at hundreds of exposures to comp so to comparison, like, visual comparison, you know, in a very short period of time.

I mean and and and so you're getting a your that their brains at that age are getting this incredible exposure to the thing that that their brains are most susceptible to. Right? So this idea that, you know, I don't measure up and I you know, something's wrong wrong with me and I'm, you know, negative negative thoughts. And so social media on a smartphone, like, it is such a sort of toxic exposure for girls in that age. And there's a lot of discussion as and I'm not in, you know, saying that we need to ban all social media, but I do think that we really do as a society need to think about who is it, who is it appropriate for and what age is that?

And I think it's pretty clear, like, he makes a good argument in the book that makes that that age is probably 16, and I would agree with that at least, like 16. Yeah. I I believe, certain countries. Australia comes to mind Oh, yeah. That they actually have a ban on social media accounts, for people under age 16.

I love it. Yeah. And I'd really think that is that, you know, we need to follow suit with that because we are just, you know, we are putting them in harm's way. Right? Right?

And so the other things that happened on the social media setting is, you know, I think I think that we've always sort of known that aggression in males and females in that age group. And

keep in mind, of course, this is an oversimplification because there's, you know, outliers on both sides of this. But that aggression for males is often a physical thing, and so boys, you know, tend to physically fight more than girls. Yeah. And girls are often a relational thing.

And so social media just amplifies the ability to be relationally aggressive. Right? I mean, like, it is just, like, you can comment on little mean things or little emojis and things that probably we don't really even understand what they are as parents. Right. But that, you know, that's happening sort of all the time at this incredible volume.

And, It's a form of emotional bullying. It is. Yeah. And it's just like relational aggression, like, the potential for relational aggression on social media sites in a phone that you have with you all the time is just a major problem. Right?

And, and so, you know, there's also you know, he also talks about how there, you know, there are definitely predatory people on social media. Right? And so not even just talking about, you know, kids relating to each other, but there are also adults out there who are wanting to engage kids and they will do that by posing as other kids and that tends to be more of a like, that girls are more targeted in that scenario. Certainly boys can be targeted too, but, but girls are on social media more and so the potential for that type of experience goes up, you know, with social heavy social media use. Because girls in general sort of have this need for communion perhaps.

Yeah. Boys can sometimes be lone wolves. Right? And They can. Are they and and, like, he talks about in the book, about how a lot of times boys are interested in an agency.

So they're wanting to develop agency like they are capable of doing certain things, whereas girls at that age often are more interested in, in community. Right. Right? And so so social media sort of has this sort of false promise of community, because, you know and I think, you know, there are people who have who have been able to articulate this that, like, when you when you say something mean to someone in person in an embodied situation, then you often have an experience of what their pain is like. Right?

So, like, you get emotional, you're able to see the emotional cues that they have from having that experience, you know, whether or not that they can see it on their face or in their posture or how they talk after that. But it gives you pretty significant feedback that tells you that you have to recognize that that person had a negative experience from something that you, you know, perpetuated if you're in person. But if you're online, you're shielded from that by and large. And that is a big problem, right, for kids to be able to understand what the consequences of their actions are for someone else. And so, so I think that, like, that need for communion is really high in girls.

It's true in boys too, of course, but they are, but I think that the female adolescent brain is just really susceptible to the toxic elements of these pair technologies of smartphones and social media. Right. Yep. So that's the world in which, for better or for worse, that's the world in which

we as parents are raising our children. So what can parents do, to help their child, through this world.

I guess the first step is if they're having problems, get them in to see the pediatrician Right. Early. And, then, what do you do as a pediatrician? How do you first make the diagnosis, the heart diagnosis? We talked a little bit about that last time, but, what are some of the tools that you use?

And then, beyond that, how do we treat it? Right. Right. So so yeah. So we're gonna sort of shift gears back into the individual, like, approach here.

So we, I I definitely think that, like, you know, I think that for parents, like, being aware of potentially being advocates for what things look like as far as phones go with, like, school phone bans, I think it's something that I mean, you know, things that that parents should be unaware of and can advocate for is sort of a societal part of this. But then when you're talking about your own child who is having symptoms of anxiety or depression that, you know, presumably resulted from some combination of individual characteristics and their social experience in their environment, then I think it is important to, you know, to have an assessment. And usually what that looks like is, you know, the older kids get, the more they are able to, like, describe for me that they are feeling anxious or depressed or, and they can sometimes externalize that to their parents. Sometimes what it looks like is that they are having functional impairment and so that is a big, you know, part of what we want to assess and functional impairment for people in this age group typically looks like academic underperformance. Right?

So they're having trouble at school or they have sort of stopped doing the social things that they used to enjoy, and those are sort of red flags for parents. And then they're not getting along within their family structure too, that is often, you know, part of it too. Right. And so there are ways for me to evaluate whether, you know, whether that child meets criteria for one of these diagnoses and the intensity and, like, frequency of their symptoms. Right.

And so, they're in addition to the scared questionnaire, so I talked about that in the previous episode, and I do use the scared questionnaire in this age group. And so that helps me sort of stratify the adolescents and adults into the GAD seven, which is the generalized anxiety disorder questionnaire. It has seven questions on it, and that one scored zero to three. So the max score is a 21. And then the PHQ nine, which is a depression screening questionnaire, nine questions scored zero to three, so the max scores are 27.

Right. Okay. And so then I will ask them those questions and just to sort of give an idea, like, the the g 87 questionnaire starts with, like, over the last two weeks, have you been feeling particularly nervous, anxious, or on the edge? And you can say, not at all, or you can say several days, which is a one, nearly I mean, I'm sorry, more than half the days or nearly every day. So that's scored zero, one, two, or three.

So on the g 87, if you ask them, like, over the last two weeks, have you been feeling particularly nervous, anxious, or on the edge? Then they can answer that that's a never, and so that's a zero. Several days out of the last two weeks, which would be scored as one. Over half the days, which is scored as two or nearly every day, which is scored as a three. Okay.

And so you're asking seven questions that are about anxiety. So it asks about, you know, whether you're feeling nervous and what those other symptoms are like. And so then you're able to stratify based on the total score, whether they fit into minimal anxiety, which is a score of zero to four, mild, which is five to nine, moderate, which is 10 to 14, or severe, which is 15 to 21. So when I am meeting people who are getting scores in the double digits to 10 or above, then I will start to say to myself, okay. Well, this is, you know, statistically outside of what would be functional, and so we wanna talk more about it.

I also, with folks in this age group, will screen at the same time for depression with that PHQ nine. And that questionnaire, the lead question on that is over the past two weeks, have you been feeling down, depressed, or hopeless? And so, again, scored zero to three with the same scale. And so then you can get up to a 27 on that one and ten or above is either mild or is either moderate or moderately severe or severe. And it is important to recognize that on the PHQ nine, the last last question, the ninth question is, about suicidal ideation.

So whether or not somebody feels like we'll ask, you know, have you had thoughts that you would be better off dead or hurting yourself in some way? Okay. Alright. So that question is really important to point out is also the topic of a completely different conversation. Right?

So we would we would that is a, you know, a a threshold at which, you know, we are doing some additional investigation. Sure. But assuming that that question is a never, and I'm looking at at somebody who has this I have a score for depression and anxiety that's or that either one of them is is in the double digits, then I will, I mean, often start talking about what our options are to try to get that better. Right. So I I guess, first, you would start I guess, the first line therapy would be that, the cognitive behavioral therapy that we mentioned last time.

Right. But, if the symptoms are moderate or severe, at that point, you'd look at, perhaps, adding some medication. That's right. To the therapeutic mix. Yep. Let's talk a little bit about the various medications that you use.

Sure. We've talked about the SSRIs, the selective serotonin reuptake inhibitors, and then we have the SNRIs. Mhmm. So talk a little bit about those. Yeah.

So so, so like first line medications are the SSRIs and, you know, that serotonin, is the neurotransmitter in our brain that gives us a sense of well-being and it turns out that people who have symptoms of anxiety and depression often has a have a depletion of serotonin. And so what we are doing with this SSRR, selective serotonin reuptake inhibitor, is we are making it so that there is more serotonin available between the nerve cells to be able to stimulate those serotonin receptors. And then that causes this increase in a sense of well-being and also allows,

like, elevation in mood, and it also helps with, you know, what I would often consider to be rigidity. So emotional rigidity, not physical rigidity. It's the kind of thing where it makes it so that you are capable of dealing with things that were not expected, and that is, you know, a really huge benefit of having output levels of serotonin.

Right? So those are all functionally important to be able to have a mood that is, you know, good enough to function and that you can deal with, things that are unexpected and that you have a sense of well-being. Right. So all those things are related to your functioning. And so selective serotonin reuptake inhibitors, they help with that.

The three that I most commonly use are Prozac, Zoloft, and Lexapro. Which of those I choose for any individual person has a lot to do with whether or not there are folks in the family who have used those medicines and whether they had positive or negative experiences. And it does take a while for these medicines to work so I have to sort of tell folks that that is my expectation that we're going to, you know It's gonna be two weeks perhaps before we go to At least, yeah, typically. And sometimes I'll start on a, you know, I'll I I typically start on a pretty low dose, and then I will need to titrate that up depending on their response. Right.

Most common side effects in this group are a little headache, nausea, dizziness, that sort of medicine head kinda feeling that folks have that we often will get with any kind of medicine that will work in the brain. And so what I find is that a lot of times, I have to get to that side effect, before I'm at the therapeutic dose. So, like, for example, if I started with Lexapro and I started on five and they felt nothing, then I and and whether it be positive or side effects, then usually I'm gonna go ahead and titrate up to the ten milligram dose. For most people, that's what it takes to become in a therapeutic range for folks who are, you know, adolescent age. And so a lot of times what will happen is that the ten milligram dose, they'll be like, ugh.

I feel kinda yucky for a few days. But then that goes away, and then that is usually a hallmark that it's the therapeutic dose for them. So then we get to, you know, two or three weeks on that therapeutic dose. We get back together and just like we did with the ADHD questionnaires and with young children with scared questionnaires, we're going to redo those questionnaires and see if the symptoms have improved. Right.

Right? Right. See what that numerical representation of their symptoms is and whether it's going in the right direction. And that will help us determine what to do with the medicine going forward. Right.

Right. Other classes of medicines that we sometimes use are SNRIs. I think it's important for folks to recognize that the s and the SNRIs actually stand for serotonin. So it's serotonin norepinephrine reuptake So it's working on two different ones. Neurotransmitters.

Exactly. The s and the SSRIs are selective. Right. So that means it's just working on serotonin. SNRIs work on serotonin and norepinephrine.

Norepinephrine is a neurotransmitter we talked a little bit about with ADHD. And as it turns out, you know, elevating norepinephrine can be helpful for mood as well. And, and so, those medicines, you know, we'll use, for anxiety and depression and that has a sort of a com combined effect for serotonin and norepinephrine and both of those things are, you know, helpful, to elevate mood. There's a third medicine that we will use a good deal called BoostBar, and it's kind of in its own class. It's been around for a long time, but this would be kind of the closest thing that you would get to actually giving someone serotonin because, of course, with the other medicines, we're, you know, we're reducing the reuptake, reducing how quickly the body clears it.

Buspar, that medication actually binds directly to the serotonin receptor and therefore activates the things that serotonin would activate in the nerves in the brain. Right. Okay. And so it elevates the serotonin effect and it tends to be, and so it helps you with that sense of well-being, that mood elevation, and it reduces rigidity. Right.

Yeah. And so in addition to these medical therapies, there are some emerging therapies that we'll talk about in another episode. I think they warrant their own episode. Some of them are, mindfulness based cognitive therapy, even use of things like ketamine, some psychedelic medications Yep. EMDR and neurofeedback.

And, we'll discuss that in detail in an upcoming episode. But, I just wanted to conclude with a few closing thoughts, what we've talked about today. Anxiety and depression in adolescent girls, they're rising rapidly, and social media is a major contributor to that rise. And then girls are especially vulnerable due to their individual and gender based, developmental and relational factors. Pediatricians are well positioned to identify and support these issues very early on.

There are effective tools and evidence based treatments that are available to treat anxiety and depression. And, for parents to navigate this very challenging state of your child's life, your young girl's life, please do be curious, be supportive, and help them to seek help early on. We can't turn back time, but we can parent with awareness, boundaries, and compassion. So things are changing, but, sticking true to the old values of compassion, that seems secure a lot. Thank you again for joining us on our podcast today.

We're excited to have you along this journey. Be sure to subscribe at our website, www.nimbleyouthpodcast.com, so you don't miss an episode, and we'll have, show notes from each episode there, transcripts, and links to any books or research studies that we've referenced, in each of the episodes. And, as mentioned, stay tuned for the next episode. We're gonna be covering adolescent boys next, and we'll talk a lot about that, which is, again, a very current and also accelerating problem. So we'll see you next time on Nimble Youth.

Until then, take care and remember, raising a mentally nimble child isn't just about preparing them for the world, it's about helping them thrive.