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## The Big Myth About Teenage Anxiety

Relax: The digital age is not wrecking your kid's brain.



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We hear a lot these days that modern digital technology is rewiring the brains of our teenagers, making them anxious, worried and unable to focus.

Don't panic; things are really not this dire.

Despite news reports to the contrary, there is little evidence of an epidemic of anxiety disorders in teenagers. This is for the simple reason that the last comprehensive and representative survey of psychiatric disorders among American youth was conducted more than a decade ago, according to Kathleen Ries Merikangas, chief of the Genetic Epidemiology Research Branch at the National Institute of Mental Health.

There are a few surveys reporting increased anxiety in adolescents, but these are based on self-reported measures — from kids or their parents — which tend to overestimate the rates of disorders because they detect mild symptoms, not clinically significant syndromes.

So what's behind the idea that teenagers are increasingly worried and nervous? One possibility is that these stories are the leading edge of a wave of anxiety disorders that has yet to be captured in epidemiological surveys. Or maybe anxiety rates have risen, but only in the select demographic groups — the privileged ones — that receive a lot of media attention.

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But it's more likely that the epidemic is simply a myth. The more interesting question is why it has been so widely accepted as fact.

One reason, I believe, is that parents have bought into the idea that digital technology — smartphones, video games and the like — are neurobiologically and psychologically toxic. If you believe this, it seems intuitive that the generations growing up with these ubiquitous technologies are destined to suffer from psychological problems. But this dubious notion comes from a handful of studies with serious limitations.

Some studies report an association between increased time spent on electronic communication and screens and lower levels of psychological well-being. The problem is that they show only correlation. It is entirely possible that teenagers who are more anxious and unhappy to start with are more drawn to smartphones to deflect their negative emotions than their better-adjusted peers.

Another group of studies use M.R.I. to examine the brains of young people who are "addicted" to internet video games, and report various structural and functional differences. For example, one study reported that a group of 17 teenagers with online gaming "addiction" had microstructural changes in various brain regions compared with a control group.

But, once again, these studies cannot tell us whether the brain abnormalities are the result of excessive internet use, or a pre-existing risk factor for it.

What about the claim that smartphones can be literally addicting, like illicit drugs? This appears to be based on a few M.R.I. studies that show that kids with online gaming "addiction" have enhanced activation in their brain's reward pathway when shown gaming images.

No surprise there. If I scan your brain while showing you whatever it is that turns you on — sex, chocolate or money, say — your reward pathway will light up like a Christmas tree. But that hardly means you are addicted to these things.

The real question is whether digital technology can produce the enduring changes in the brain that addictive drugs do. There is little evidence that this is the case. And while an alcoholic deprived of his drink can go into life-threatening withdrawal, I have yet to see an adolescent in the emergency room with smartphone withdrawal — just a sullen teenager who wants his device back.

Considering all this, why do so many parents still insist that their teenager has a problem with anxiety? I fear that it reflects a cultural shift toward pathologizing everyday levels of distress.

There is a difference between an anxiety disorder and everyday anxiety. The first impairs people's ability to function because they suffer from excessive anxiety even when there is little or nothing to be anxious about. The second is a perfectly normal and rational response to real stress. Teenagers — and people of all ages — will and *should* feel anxious occasionally.

Some would argue that young people today are more worried because the world is now in a more parlous state, what with intense competition for college and the lingering effects of the Great Recession, among other factors. Sure, but then that anxiety is an appropriate response to life's challenges — not a disorder.

Of course this is anecdotal, but as a psychiatrist, I haven't seen an increase in the number of patients suffering from true anxiety disorders, who need therapy and often medication to keep their affliction in check. What I have noticed is that more of my young patients worry a lot about things that don't seem so serious, and then worry about their worry.

A few patients in their early 20s, for example, were under a lot of stress at work, and were alarmed by a few nights of poor sleep. None of them were clinically depressed, yet they were convinced that their insomnia would seriously impair their work or make them physically sick. All were surprised and easily reassured when I told them there was little cause for concern. Why, I wondered, didn't they know this without me?

I got a clue when, for the first time a few years ago, I received a phone call from the mother of a teenage patient. She was concerned that her son was unhappy in the wake of a breakup with his girlfriend and asked me to call him to "check on him."

Since there was nothing more than a vague worry about his unhappiness — a perfectly normal response to romantic disappointment — I told her that he could always contact me if he needed to.

Since then, I have received similar calls from parents worried about their teenagers' ability to handle everyday adversity — for example, underperforming on a high-stakes exam or failing to get a summer job.

These well-meaning parents are conveying to their kids that their emotional responses to difficult but ordinary experiences are not to be taken in stride, but viewed as something needing clinical attention.

The truth is that our brains are both more resilient and more resistant to change than we think. The myth of an epidemic of anxiety disorder rooted in a generation's overexposure to digital technology reveals an exaggerated idea about just how open to influence our brains really are.

Yes, our brain has evolved to learn and extract critical information from the environment, but there are limits to neuroplasticity. Even when we are young and impressionable, our brains have molecular and structural brakes that control the degree to which they can be rewired by experience (and these tighten as we age).

This is a good thing; without these limits, we would be at risk of overwriting — and losing — accumulated knowledge that is critical to our survival, to say nothing of our identity.

It's good to keep in mind that the advent of new technology typically provokes medical and moral panic. Remember all those warnings that TV would cause brain rot? Never happened. The notion that the brain is a tabula rasa that can be easily transformed by digital technology is, as yet, the stuff of science fiction.

So don't assume that there's something wrong with your kid every time he's anxious or upset. Our teenagers — and their brains — are up to the challenges of modern life.

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Richard A. Friedman is a professor of clinical psychiatry and the director of the psychopharmacology clinic at the Weill Cornell Medical College, and a contributing opinion writer.

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