Adderall is having its big moment in the spotlight. A popular stimulant used in ADD and ADHD treatment, experts are now saying it’s been overprescribed over the past 20 years particularly among school aged children, and potentially contributed to a wider stimulant epidemic across the country. While everyone has grown up with the “drugs are bad” message, what happens when you’ve been told your whole life the very drug you’re misusing is what you’ve been told you need to take not only to succeed, but participate? Today we’re going to talk abut what’s really going on behind the popularity of Adderall, and why we may be seeing the consequences of its widespread distribution for years to come.

A mixture of Amphetamine and Dextroamphetamine salts, Adderall and other stimulants like methamphetamine and cocaine are are classified by the Untied States government as a Schedule II substance. Meaning, it’s a substance with a high risk of abuse but with some very limited medical applications. Now the scheduling system is imperfect in its own way, but the risks that stimulants pose not only for addiction, but for cardiovascular issues, organ failure, and potential overdose are serious and are often underplayed by pharmaceutical companies. While other prescription stimulants like Ritalin and Vyvanse are also

In Universities across the United States though, it’s known as the A+ pill, and it’s available anywhere students have a friend with a prescription. Used as a performance enhancer to get better grades and test scores, it’s supposed neuro-cognitive enhancement capabilities isn’t backed up by any of the double-blind studies when students are give Adderall or a Placebo before taking a test. So if it does’t actually bring about better test scores, why is it so popular?

The answer, is a bit complicated. While we can point fingers at our distracting modern world along with two decades of reduced recess times, increased school requirements for test scores, and decreased funding for public schools in the united states. Adderall is just the newest iteration of the post-industrialized world’s love affair with stimulants and productivity. What’s different this time, is that users are seeing a lot more benefits now before they do drawbacks, and in the world of “Go fast and break things,” most of those drawbacks are just seen as necessary sacrifices for success in a world where the competition never ends, and your replacement will be in the door before you’re even out of it.

As for college students, the popularity of amphetamines for performance enhancement was first noted in Time Magazine…in 1937. They didn’t need a prescription, amphetamine inhalers and pills were available at most pharmacies, but the big difference we see now between amphetamine misuse then and misuse today is the motivation. College students used amphetamines alongside alcohol, nicotine, cannabis, and even heroin on occasion for the purpose of partying and getting high. Today, 50-89% of college students who use amphetamines do so specifically for academic motivations. While some of our own ethnographic data participants said they would occasionally use it to stay awake and claim they would be able to drink more at parties (more on that point later), that wasn’t the main motivation and almost no respondents said they bought stimulants for that specific purpose, and it was never on a regular basis.

Which is why while popular for college students, it’s also the new drug of choice for pretty much anyone involved in modern capitalism. From CEO’s and celebrity business managers, to Silicon Valley techies and Wall Street interns, the idea that “Adderall helps you be a better capitalist,” is almost a mantra to keep up with some of the unrealistic demands that workers are asked to accomplish as quickly as possible, and if not, the next guy is already waiting. This is’t amphetamines first brush with success, or the second, but it’s been a long time since these stimulates were available with a prescription. But until the 1970’s you didn’t even need a prescription to get a hold of amphetamine, starting with a brand of amphetamine inhalers called, Benzedrine.

While it’s easy to look at the cocaine boom of the 70’s and 80’s alone,American Capitalism’s love affair with amphetamines is’t new, cocaine’s last hey-day was well-documented, and it still remains a popular obsession for media about the 1970’s, being nearly synonymous with Wall-Street bankers, high rollers and other societal elites at the time. Even detailed in MadMen’s infamous energy serum scene, inspired by the real life Dr. Feelgood named Dr. Max Jacobson who prescribed amphetamines from everyone to President John F. Kennedy to the Beatles, the dealer to the stars. Now it’s not just one Dr. Feelgood, but thousands of doctors across the United States who were part of the self-proclaimed Adderall Industry.

Cocaine at the time was restricted to a doctors prescription, but it wasn’t difficult, particularly for the upperclass, to receive a prescription for pretty much anything under the sun, but it was benzedrine and other over the counter amphetamines that were most commonly used and abused between the 1930’s up until the cocaine boom of the 1970’s to 90’s. The mid-20th century’s drug boogeyman had already switched from amphetamines to heroin and cannabis, so amphetamines were just seen as medicine instead of dangerous narcotics as others were being painted as at the time. That didn’t stop it from being used as snake oil for every ailment possible at the time.

Benzedrine specifically was first trademarked by Smith, Kline, and French in 1928 and was first available for use in 1929, kicking off 40 years of it being used for everything. And I mean, EVERYTHING. Weight loss, anti-depressant, menopause cure, anesthesia, and even children’s cough and cold medicine! Which would also often include codeine, morphine, and cannabis on occasion. That is, I guess, one way to stop coughing.

Benzedrine was widely available over the counter as were many other amphetamines from different companies, but Benzedrine was the Allied forces choice of drug for keeping fighter pilots and other soldiers awake for days at a time sometimes during the war. It was considered essential supplies and distributed widely, but they weren’t the only ones utilizing amphetamines in the war effort. The Axis powers and famously the Nazi party used methamphetamine primarily to not only keep their soldiers awake, but helped cut down on the rations soldiers needed if they didn’t feel the need to eat for days at a time.

But at the same time it was being distributed as a patriotic necessity overseas, Black laborers back home were being criminalized and stereotyped for their use. Despite the same motivations for use: staying awake, not needing to eat, and most importantly, numbing out the pain from backbreaking labor day in and day out, and no racial difference in amphetamine use, it was Black and poor white users who were ridiculed and criticized for it, despite it being used fairly equally among races and socioeconomic class across the decades. During every drug epidemic, the legislation and restrictions that attempt to contain the crisis consistently harm Black communities and users significantly more than even major cartel and mob creators and distributors. We saw it during the first cocaine epidemic, and we saw it during the second, when the ongoing and largely unsuccessful “War on Drugs” began. We continue to see this difference today in who is being criminalized for marijuana use, who is in the prisons for minor drug crime charges, and sentencing severity for those charges.

Even now, the perception of stimulant users varies greatly by who is using them. When we think of stimulant addicts, the images that often come to mind are cooked meth in trailer parks, or cocaine dealers in strip clubs, or “tweakers” at the bus stop many avoid even looking at even when they’re right next to us. But the reality is, there’s a whole subset of addicts are getting their amphetamine fix through prescriptions, just as many opioid users became addicted through their prescription opiates. The majority of prescription stimulant users today are now adults with a notable reduction in prescriptions in children over the last five years, but that hasn’t stopped the parents and now grown adults who grew up being told they needed to take Adderall or Ritalin not only to succeed, but even participate in society in the first place.

That isn’t to say Adderall and other prescription stimulants have absolutely no medical uses. They can be legitimately life changing for the people who need them. The issue is, there’s a lot of people who are taking them that don’t need them and its non-medical usage has become normalized for people without ADHD or other disorders that can benefit from stimulant therapy. Especially for people who find that their ADHD symptoms interfere with their life and daily functioning, the regulatory effects stimulants can have on them can be life changing. The issue was, for too long, people without debilitating or even legitimate ADHD symptoms were able to receive prescriptions for decades, and today there’s a lack of awareness that not only is Adderall a legitimately dangerous drug if used improperly, but that sharing these prescriptions with others or getting it from someone with a prescription is a federal crime, with hefty charges attached. Then there’s the issue of stimulant addiction, which we are beginning to see the consequences of in Universities on the West coast, where spikes of meth use are popping up where there hadn’t been significant usage from college-enrolled young adults in the past.

The documentary Take Your Pills, gives a snippet of the consequences of the cultural pressure not only in college students, but why it’s so popular to use in our current cultures of business, technology, and even athletics. The documentary itself only focuses on one aspect of the epidemic in its almost two hours, and doesn’t dive into any of the benefits of treating ADHD and ADD symptoms with stimulants (or other therapies that are shown to be more effective than stimulants), it does provide a glimpse into the world of the industry side of the diagnosis, and what was driving the over diagnosis for almost three whole decades for children who obviously did not have ADD or ADHD, and the consequences of the normalization of “study drugs.”

With interviews and explanations from researchers themselves like Dr. Carl Hart, the Chair of Psychology at Columbia University, Dr. Martha Farah, a leading cognitive neuroscientist at the University of Pennsylvania, and Anjan Chatterjee, Chair of the Neurology department also at University of Pennsylvania. Hart, Farah, and Chatterjee are all well-respected scientists who have extensively studied the effects of psychoactive substances on the brain. Dr. Farah in particular is known for her studies showing no difference in cognitive enhancement between Adderall and placebo in adults without ADHD, which has been successfully replicated numerous times since.

But while the documentary focuses almost solely on the drawbacks of Adderall, there are still medical benefits, and I wanted to talk to someone who had seen both of the extremes when it comes to stimulants. Dr. Bruce Baker is a board-certified addictionist, and while he often sees the most dire cases of stimulant addiction, he’s also seen cases where sometimes a prescription stimulant intervention has drastically improved a patients quality of life. Not only does he have the experience, but he has spent thousands of hours lecturing everyone from masters students and residents, to Michigan State Police and members of Michigan’s legislature about drug education, and has even held seminars at Grand Valley in the past few years at the request of certain faculty. So if anybody was going to know anything about the stimulant epidemic, it was going to be him.

(Interviewer) All right, so Dr. Baker.

Yes.

(Interviewer) What can you tell me about the ongoing prescription stimulant epidemic?

Well, I'm an addiction specialist and one of the drugs that I don't write for are the stimulants because very few people need them and very few adults, if any require them. But people do want them. I want to talk a little bit about the stimulants itself because these are these are chemicals that we as human beings seem to have fallen in love with because we're talking about the phenethylamines and these include things like amphetamine which is Alpha methylmethylamine, which is one of the basic stimulants. Adderall is a derivative. Also, there's Vyvanse, there's multiple stimulants that are available for adults and children.

Unfortunately, this class of drugs causes tolerance, in that your brain will adjust the number of receptors to what's there. So if you have a whole bunch of amphetamine, you don't need quite as many receptors, but if you stop amphetamine you go to sleep, because the stimulation is now gone.

The stimulants that that are used today; Ritalin, Adderall, Vyvanse, are probably the three main ones. There’s Focalin which is an older preparation, but they all differ somewhat in their properties and they all have high abuse potential, and we know through time that people do become tolerant to these as they used to be used for weight reduction and people would lose the weight Initially, and over the next 60 to 90 days they’d gain every pound back and probably more because they become *tolerant* to the through these stimulants.

Today, there’s also stimulants that are not addictive that have been developed, One Is Provigil the other is new vigil and these are stimulants that our work best for what we call shift workers disease people who work third shift. They have a hard time staying awake when they need to be awake and these two medication seems

Seem to be very effective. I prescribed it for nurses and they see your no problems with it and no signs of any tolerance or abuse. So they do work the stimulants that are out there today for ADD ADHD. The problem being is that again, they are highly addictive.

For children who use Ritalin and Ritalin is very seldom abused. I have had one patient in my practice in the past 15 years who had a problem with ritalin and Ritalin is not a drug really of abuse for a number of reasons. Number one. It takes too long for an onset. So you don't get a real heavy Buzz right at the beginning but it's definitely awakens you the other issue with ritalin luckily is it can't be used intravenously.

So it can't be crushed up and injected because once you inject the substance, it has 10 times the potency of taking it orally so that 10mg of morphine injectable, you would have to give a hundred milligrams of morphine by mouth. Okay, so you get 10 times the mileage.

And the Ritalin is also can be used as skin popping. I have seen that very very seldom and plus Ritalin only last four to five hours. They say four to six. It's more like three to five and multiple dosing during the day and that becomes difficult. And Iran is the classic amphetamine.

Drugs that come from though. One of them is ecstasy methylenedioxy-methamphetamine that the MDMA is a derivative. So is mescaline that can be made from it. And they use this structure these phenethylamines and it really does seem like human beings have a real-they really seem to like them and whatever form they are stimulate exactly the same areas of the brain.

He also talks about the initial stimulant boom among college students for improving test scores surprisingly started as a study done by a university.

Going back, stimulants were never an issue till 1955, and it was University of Wisconsin. It was the first time the stimulant was given to a college student and it was part of one of the psychology classes where they pay you $5 to take a medicine or take a test and they did the initial study within one year. Please keep in mind: there was no internet, making a long distance phone call was a big deal news doesn’t travel like they do today. Within one year amphetamines are on every campus cross country. That's how fast it ran through the college crowd.

It's incredible. So this ain't new. This is nothing new in that enemies were used as long ago as a Mother's Little Helper. I think you've seen a little tin and it has mom serving a turkey all happy and it's because she was eating a pile of meth before she ate dinner, but it was legal back then. And the United States isn't the only country to see the swing from stimulants to downers. These have been Global trends for a very very long time.

They were used to keep people awake for nighttime sorties and for their troops. This is nothing new. This goes back to 1500 BC when the troops would be given at some form of leaf that had a stimulant and not only did they fight without sleep, but they didn't need to eat a whole lot. So these were ideal for warfare and its continued into today. We still use amphetamines and methamphetamine for some of our Air Force pilots who are flying at night and are too tired. And there was there was an incident about 25 years ago. I think I think it was 25 years ago during the Iraq War when we accidentally bombed some Canadians and killed a bunch of them. And the issue was that our Pilots were using stimulants! That was part of their routine, even though they were tired and they made a mistake. It was a huge mistake.

So the armed forces and I'm sure has taken another look and I have no idea if it's still being used at this day. I doubt it. But this was the same thing in post-war Japan where the problem was the stimulants during the war and afterwards they had a really an epidemic of deaths from barbiturates. It's the swings from one end to the other. It’s stimulants and then it's depressants and that stimulants again.

And if you want to take a look and see if we have a problem with stimulants just go to any gas station that sells pop and count. The number of drinks that are energy drinks and you will find that it's two-thirds of what's being sold are energy drinks. The stimulants are there here they've made a comeback. This is exactly what we saw in post World War Two.

While he does occasionally see Adderall abuse in his line of work because of the areas he works in meth is a much, much bigger issue. He also cleared a common misconception about so called “meth-mouth.”

Heroin is not coming through the fentanyl. A lot of people died from fentanyl being put in the heroin and there's not a whole lot [of heroin] left. Except methamphetamine, which is dirt cheap to make Uncle Joe makes it anytime and has everybody over for meth and who wouldn't want to feel like a hero, absolutely on top of the world for three days in a row. You don't need to eat, you feel the best you've ever felt, and it's the most fun you've had years.

Asking people to walk away from that cold turkey is very difficult because we have no treatment for meth. None. It's a tough life and people have a hard time, Id say walk away from it but it is, you’ve got to be so dedicated and willing really to go to long-term treatment.

Crime rate with methamphetamine, here in the county that I live in which is 15,000 people anybody who's been admitted to law enforcement for methamphetamine use, everyone has relapsed within six months and been returned to jail. This is costing us a fortune if not *lives* right up front.

So the methamphetamine-and it comes in various forms, it comes-you can inject it. And that's what they used to do in the 50s. They used to have things called “Splash parties” and evidently the soldiers from the Korean war came back with a methamphetamine habit that they learned about and that's injecting methamphetamine. And, evidently when you inject it, it makes you feel like there's cold water being splashed on your face. And back in the late 50s when they had block parties and they went to the pharmacy picked up syringes and methamphetamine because it was legal! And that's how parties went in the 50s. It was not unusual to be injecting meth.

(Interviewer) All right!

It's a very bad substance because people make really bad decisions after being awake for three days. You're definitely not thinking about other people, and to look at=I'm sure you've seen that poster of The Meth mouth and all that stuff. Well people say it's from the heavy metals that make that make methamphetamine and that's not true. The reason people get that kind of mouth is because they're not hungry, but they need energy so they drink lots of sugar lots and lots of sugar and let's face it. If you're on top of the world and Invincible, you're not going to brush your teeth for three days either.

So your gums begin to overgrow and then when the methamphetamine is wearing off you sleep for two or three days. So you've gone really a week without any oral hygiene and that's meth mouth. That's how it happens. It's from the consequences.

(Interviewer) Another concern, Adderall isn't actually meant to be used to keep you awake. The tolerance builds too quickly and you get to use to the stimulating effects making it not effective at actually staving off sleep.

The amphetamines. The only indication is ADHD, if you require an amphetamine to stay awake, it's the wrong drug is not to be used that way. It shouldn't be used that way. And anybody who prescribes it that way is risking their medical license because it is not that. And it is not for weight loss because you gain it all back. Uou become tolerant to it.

The number of adults that really that require an amphetamine for their for their life are few and far between. Very, very, few people. I have seen people who do need it and do well afterwards. They get balanced but Adderall, all amphetamines, are not to stay awake. It's never been an indication for it and when patients come in, and I deal with the interesting population. They know I don't prescribe stimulants because it's written on my desk in big letters that “We do not prescribe stimulants or narc or opiates routinely for adults.” And very few people ask once they read that sign. Although some people still ask, very few people give me a hard time.

And the other problem with the amphetamines, is it’s currency, you know, I'll trade you three, you know three 30 milligram Adderall for that coke. That's how it happens. That's the problem with the pills and the film’s, it becomes a currency.

(Interviewer) And while that may sound extreme, Dr. Baker offered an example from his own practice as to how he seen these stimulants actually help people.

And I haven’t, one person who I prescribed Ritalin for who's also a heroin addict that was recovering and within three weeks at a full-time job. Because he couldn't sit still. And I watched him. I thought he was kidding. He could not sit still. And then he comes in after a week of Ritalin and was a new person. I mean absolutely I couldn't believe it. If you want to know if somebody is truly ADHD or add they don't like the amphetamines. It makes them feel normal again because that's what it does is it slows up that brain so in my practice, patients you they don't like the ant that doesn't make him feel good. Whereas someone else if they're wired to the ceiling.

(Interviewer) And as a physician stimulants aren't his first and only choice of treatment for ADHD, especially for more mild cases.

And biofeedback works very well for ADD and ADHD and instead of drugs being the first line of treatment. I think we should look at Alternatives first and use the drugs for the last.

(Interviewer) So if nobody's ever really going to stop using what's the solution? Dr. Baker says, just proper education.

The amphetamines have always been a problem. What do you do? You know the best thing you can do is educate people.

And if people know what you and I know, they would choose not to do it. Because they're in college there got to be semi bright so giving them the information should be enough for them to really start thinking but we need to get them the information. It's it's a problem. That's a group that the class of drugs again the phenethylamines and I encourage you to really take a look at what what comes from them an ecstasy is one of them and you'll understand this is this is a special group than amphetamine are part of it. You'll never be able to fix it or stop it. But again if we can educate people enough that first of all, you don't know what you really need. Somebody and I've had a number of healthcare professionals because I that was part of what I did working with Health professional recovery program. “I didn't know what was in the pill!” Well, you know what you're a grown-up and if you don't know what's in the pill, why did you eat it?

And this is It's a common-not common but it's not an uncommon set. So tell him right up front. If you start eating your buddy’s meds, you don't know what's in it. Then I see people get poisoned one of my patients here in Newaygo County brought she was going to get meth.

Next thing she knew she woke up two days later black and blue and has no recollection of what happened. And they were pushing that as methamphetamine. I'm just pleased that I have a relationship in my patients where they can tell me these things. And she was black and blue. And it was, somebody who knew somebody at a party who gave it to her. And it's no different than the college parties.

And the other issue that comes up especially during college parties where pills are being passed out like ecstasy, is to have someone testing them there. They don't know what they're eating. Why not test it because if it's high dose fentanyl they're gonna die. But people don't want that. They just don't want them at the parties. But the bottom line is they're going to do it, this is the reality, why not make it safe? It's actually safer.

(Interviewer) Yeah, if they're going to be doing it anyway,

so why not be responsible adults and make sure they're getting what they should.

(Interviewer) As far asNational trends go though. There is some hope.

When Mom and Dad are eating them, or as I've seen in many practices Mom and Dad seemed to lose the Ritalin prescription quite frequently and need to come and get another one. That used to be more common, and today with all the red flags going up and the prescription monitoring service for the state of Michigan, we don't see that much.

There's a there's a study called Monitoring the Future which is out of University of Michigan where they look at 42,000 high schoolers, 8th 10th, and 12th grade and they look at their drug use and how they view drugs and it's very interesting that according to the statistics. The amphetamine use is actually down. It didn't go up. It didn't stay the same, but it went down. And it's very I can't remember the exact numbers, but they were not impressive. So I'm not sure where they're getting their information because what I'm hearing is it's a real epidemic on campus and yet statistically from the Center for Disease Control, it appears as though it's decreasing.

(Interviewer) In the end. Dr. Baker leaves us with some very sage advice. I think we all need to take a little bit more often.

(Interviewer) So that's your advice keep educating. Be safe. Be smart be responsible?

And be around other people don't isolate. That always helps and if you want to know I always tell my patients because they say is this a good idea and I'm only with them for a short period of their life. So I tell them you know, what you should is do ask yourself, “Would you tell your mother this?” and if you don't want to tell your mother then it's probably not a good idea. It's as simple as that.