WEBVTT

NOTE duration:"01:08:00.0120000"

NOTE language:en-us

NOTE Confidence: 0.8097578

 $00:00:00.000 \rightarrow 00:00:02.340$ Welcome everyone to today's grand rounds.

NOTE Confidence: 0.8097578

 $00:00:02.340 \longrightarrow 00:00:05.790$ The the one thing that I want to say

NOTE Confidence: 0.8097578

 $00:00:05.790 \longrightarrow 00:00:08.084$ is about next week's grand rounds.

NOTE Confidence: 0.8097578

 $00{:}00{:}08{.}084 \dashrightarrow 00{:}00{:}11{.}143$ Then I'll pass it to Michael to say

NOTE Confidence: 0.8097578

 $00:00:11.143 \rightarrow 00:00:13.443$ about today's very special grand rounds.

NOTE Confidence: 0.8097578

 $00:00:13.443 \longrightarrow 00:00:16.502$ So next week I have to say that

NOTE Confidence: 0.8097578

 $00{:}00{:}16.502 \dashrightarrow 00{:}00{:}18.422$ it's a particularly meaningful and

NOTE Confidence: 0.8097578

 $00:00:18.422 \rightarrow 00:00:20.714$ special grand rounds to me personally,

NOTE Confidence: 0.8097578

 $00:00:20.720 \longrightarrow 00:00:23.018$ and to many people in the

NOTE Confidence: 0.8097578

 $00:00:23.020 \longrightarrow 00:00:24.935$ child Study Center in that

NOTE Confidence: 0.8097578

 $00:00:24.935 \longrightarrow 00:00:27.234$ we're going to have this second

NOTE Confidence: 0.8097578

00:00:27.234 --> 00:00:30.070 annual Max Ritvo Alan Slifka.

NOTE Confidence: 0.8097578

 $00{:}00{:}30{.}070 \dashrightarrow 00{:}00{:}31{.}442$ Grand Rounds and you'll

NOTE Confidence: 0.8097578

 $00{:}00{:}31.442 \dashrightarrow 00{:}00{:}32.810$ learn more about them

- NOTE Confidence: 0.8726508
- $00:00:32.810 \rightarrow 00:00:34.530$ as the announcement comes out,
- NOTE Confidence: 0.8726508
- $00:00:34.530 \longrightarrow 00:00:37.273$ but suffice it to say that I think
- NOTE Confidence: 0.8726508
- $00{:}00{:}37{.}273 \dashrightarrow 00{:}00{:}40{.}017$ this will be the first time that we're
- NOTE Confidence: 0.8726508
- $00:00:40.020 \rightarrow 00:00:42.418$ going to have something like a play.
- NOTE Confidence: 0.8726508
- 00:00:42.420 --> 00:00:43.788 I don't know exactly
- NOTE Confidence: 0.8726508
- $00:00:43.788 \longrightarrow 00:00:45.510$ what you're going to call
- NOTE Confidence: 0.8726508
- $00:00:45.510 \longrightarrow 00:00:48.248$ it, but it's going to be a very
- NOTE Confidence: 0.8726508
- $00:00:48.250 \rightarrow 00:00:50.600$ unique type of grand rounds.
- NOTE Confidence: 0.8726508
- $00{:}00{:}50.600 \dashrightarrow 00{:}00{:}52.256$ Our presenters Susie rule.
- NOTE Confidence: 0.8726508
- $00:00:52.256 \rightarrow 00:00:54.732$ Sarah Ruhl is a acclaimed playwright.
- NOTE Confidence: 0.8726508
- $00:00:54.732 \longrightarrow 00:00:57.206$ She is on faculty at the
- NOTE Confidence: 0.8726508
- $00{:}00{:}57{.}206$ --> $00{:}00{:}59{.}272$ Yell School of Drama, which,
- NOTE Confidence: 0.8726508
- $00:00:59.272 \longrightarrow 00:01:00.924$ as you probably know,
- NOTE Confidence: 0.75587773
- $00{:}01{:}00{.}930 \dashrightarrow 00{:}01{:}03.820$ is the top drama school, probably in
- NOTE Confidence: 0.75587773
- $00:01:03.820 \longrightarrow 00:01:05.059$ the world. She's
- NOTE Confidence: 0.75587773

 $00:01:05.060 \longrightarrow 00:01:07.122$ an acclaimed writer, an author,

NOTE Confidence: 0.75587773

 $00:01:07.122 \longrightarrow 00:01:09.186$ and she will speak about

NOTE Confidence: 0.75587773

 $00:01:09.186 \longrightarrow 00:01:10.836$ something that is very,

NOTE Confidence: 0.75587773

00:01:10.836 --> 00:01:12.080 very personally meaningful,

NOTE Confidence: 0.75587773

00:01:12.080 --> 00:01:15.229 as I say. Two, she personally

NOTE Confidence: 0.82413155

 $00{:}01{:}15{.}230 \dashrightarrow 00{:}01{:}17{.}456$ to me personally to Laura Cardona.

NOTE Confidence: 0.82413155

00:01:17.460 --> 00:01:20.430 Too many of us who were touched in

NOTE Confidence: 0.82413155

00:01:20.430 --> 00:01:23.412 many ways by Max Ritvo, so I really

NOTE Confidence: 0.82413155

 $00{:}01{:}23.412 \dashrightarrow 00{:}01{:}26.010$ look forward to all of us joining

NOTE Confidence: 0.82413155

 $00:01:26.010 \longrightarrow 00:01:27.129$ you then. So

NOTE Confidence: 0.82413155

 $00{:}01{:}27{.}130 \dashrightarrow 00{:}01{:}28{.}990$ that's next week. But today,

NOTE Confidence: 0.82413155

 $00:01:28.990 \longrightarrow 00:01:31.220$ the main event we were fighting

NOTE Confidence: 0.82413155

00:01:31.220 --> 00:01:33.078 each other Michael Block, and

NOTE Confidence: 0.82413155

 $00:01:33.080 \longrightarrow 00:01:34.199$ I say no.

NOTE Confidence: 0.82413155

00:01:34.200 --> 00:01:36.426 I introduce her. Now you introduce

NOTE Confidence: 0.82413155

00:01:36.426 --> 00:01:38.658 her now, I mean, but eventually

00:01:38.660 --> 00:01:41.636 Michael one and I think that it's only

NOTE Confidence: 0.82413155

 $00{:}01{:}41.636 \dashrightarrow 00{:}01{:}43.870$ right because Jennie did the wonderful

NOTE Confidence: 0.82413155

 $00:01:43.870 \longrightarrow 00:01:45.354$ presentation introduction of Michael

NOTE Confidence: 0.82413155

 $00:01:45.354 \rightarrow 00:01:48.355$ when he gave his grand rounds sometime.

NOTE Confidence: 0.82413155

00:01:48.355 --> 00:01:51.660 Last year and now Michael Block

NOTE Confidence: 0.82413155

 $00{:}01{:}51{.}660 \dashrightarrow 00{:}01{:}53{.}691$ Mentor Supreme will introduce

NOTE Confidence: 0.82413155

00:01:53.691 --> 00:01:56.230 the great Jenny Dwyer Jenny.

NOTE Confidence: 0.82413155

00:01:56.230 --> 00:01:58.768 We're delighted you're here, Michael.

NOTE Confidence: 0.82413155

00:01:58.770 --> 00:02:02.010 Take it away. Pam Unmuted,

NOTE Confidence: 0.82413155

 $00{:}02{:}02{.}010 \dashrightarrow 00{:}02{:}04.730$ I guess I it's really my pleasure to

NOTE Confidence: 0.82413155

 $00{:}02{:}04.806 \dashrightarrow 00{:}02{:}07.137$ introduce Jenny Dwyer and I I guess

NOTE Confidence: 0.82413155

 $00{:}02{:}07{.}137 \dashrightarrow 00{:}02{:}10{.}016$ I'll go with the beginning of the

NOTE Confidence: 0.82413155

00:02:10.016 --> 00:02:11.820 official boring introduction because

NOTE Confidence: 0.82413155

00:02:11.820 --> 00:02:14.781 just to prove I can do it and then

NOTE Confidence: 0.82413155

00:02:14.781 --> 00:02:17.468 I'll talk a little bit about her

 $00:02:17.468 \rightarrow 00:02:20.060$ as a person and really highlighting

NOTE Confidence: 0.82413155

 $00{:}02{:}20{.}140 \dashrightarrow 00{:}02{:}22{.}606$ the great thing she's done here.

NOTE Confidence: 0.82413155

 $00:02:22.610 \dashrightarrow 00:02:24.920$ So Jennifer Dwyer is currently an

NOTE Confidence: 0.82413155

 $00{:}02{:}24.920 \dashrightarrow 00{:}02{:}26.895$ assistant professor at the Child

NOTE Confidence: 0.82413155

 $00{:}02{:}26.895 \dashrightarrow 00{:}02{:}29.457$ Study Center and in the Department of

NOTE Confidence: 0.82413155

 $00{:}02{:}29{.}457 \dashrightarrow 00{:}02{:}31{.}987$ Radiology and Biomedical Imaging at Yale.

NOTE Confidence: 0.82413155

00:02:31.990 --> 00:02:34.966 She completed her MD and pH D in

NOTE Confidence: 0.82413155

00:02:34.966 --> 00:02:38.049 pharmacology at the University of California,

NOTE Confidence: 0.82413155

00:02:38.050 --> 00:02:38.483 Irvine,

NOTE Confidence: 0.82413155

 $00:02:38.483 \longrightarrow 00:02:40.648$ better known as the Anteaters,

NOTE Confidence: 0.82413155

 $00{:}02{:}40.650 \dashrightarrow 00{:}02{:}42.990$ where she studied the development of

NOTE Confidence: 0.82413155

 $00:02:42.990 \longrightarrow 00:02:45.410$ the dopamine system in adolescence.

NOTE Confidence: 0.82413155

 $00{:}02{:}45{.}410 \dashrightarrow 00{:}02{:}47{.}706$ We were then lucky enough to recruit

NOTE Confidence: 0.82413155

 $00{:}02{:}47.706 \dashrightarrow 00{:}02{:}50.658$ her to the Sony Integrated program in

NOTE Confidence: 0.82413155

 $00{:}02{:}50{.}658 \dashrightarrow 00{:}02{:}53{.}028$ Child and a dult psychiatry research

NOTE Confidence: 0.82413155

 $00:02:53.028 \longrightarrow 00:02:55.986$ where she transitioned to have to

 $00:02:55.986 \rightarrow 00:02:57.910$ conduct more clinically oriented

NOTE Confidence: 0.82413155

 $00{:}02{:}57{.}910 \dashrightarrow 00{:}02{:}59{.}801$ research that's really informed

NOTE Confidence: 0.82413155

 $00:02:59.801 \rightarrow 00:03:02.136$ by her expertise in neuroscience.

NOTE Confidence: 0.82413155

 $00{:}03{:}02{.}140 \dashrightarrow 00{:}03{:}04{.}804$ Former pH D at Irvine she's going to

NOTE Confidence: 0.82413155

 $00{:}03{:}04.804 \dashrightarrow 00{:}03{:}06.848$ present on novel research examining

NOTE Confidence: 0.82413155

 $00{:}03{:}06{.}848 \dashrightarrow 00{:}03{:}09{.}446$ cada mean as a novel the rapeutic

NOTE Confidence: 0.82413155

 $00:03:09.446 \rightarrow 00:03:11.953$ for treatment refractory depression

NOTE Confidence: 0.82413155

 $00:03:11.953 \longrightarrow 00:03:13.287$ in adolescents,

NOTE Confidence: 0.82413155

 $00{:}03{:}13.290 \dashrightarrow 00{:}03{:}15.375$ and she's just starting till

NOTE Confidence: 0.82413155

00:03:15.375 --> 00:03:18.200 lunch in our one grand looking,

NOTE Confidence: 0.82413155

00:03:18.200 --> 00:03:20.430 entitled reducing adolescent suicide risk,

NOTE Confidence: 0.82413155

 $00{:}03{:}20{.}430 \dashrightarrow 00{:}03{:}21{.}894$ safety and efficacy,

NOTE Confidence: 0.82413155

 $00{:}03{:}21.894 \dashrightarrow 00{:}03{:}24.334$ and connect home phenotypes of

NOTE Confidence: 0.82413155

 $00{:}03{:}24{.}334 \dashrightarrow 00{:}03{:}26{.}558$ intravenous Academy that focus on

NOTE Confidence: 0.82413155

 $00:03:26.558 \rightarrow 00:03:28.898$ testing the effects of repeated dose.

 $00{:}03{:}28{.}900 \dashrightarrow 00{:}03{:}31{.}952$ Cada mean as a novel the rapeutic in

NOTE Confidence: 0.82413155

 $00{:}03{:}31{.}952 \dashrightarrow 00{:}03{:}34{.}050$ adolescent treatment refractory depression.

NOTE Confidence: 0.82413155

 $00:03:34.050 \rightarrow 00:03:35.760$ And using neuroimaging to explore

NOTE Confidence: 0.82413155

00:03:35.760 --> 00:03:37.128 predictors of treatment response,

NOTE Confidence: 0.82413155

 $00:03:37.130 \longrightarrow 00:03:38.048$ and I guess,

NOTE Confidence: 0.82413155

 $00{:}03{:}38{.}048 \dashrightarrow 00{:}03{:}39{.}884$ the stuff that I'd really like

NOTE Confidence: 0.82413155

 $00:03:39.884 \rightarrow 00:03:41.917$ to say about her personally,

NOTE Confidence: 0.82413155

 $00:03:41.920 \dashrightarrow 00:03:43.972$ that I think doesn't come through

NOTE Confidence: 0.82413155

 $00{:}03{:}43{.}972 \dashrightarrow 00{:}03{:}45{.}340$ in the Tri introduction,

NOTE Confidence: 0.82413155

 $00{:}03{:}45{.}340 \dashrightarrow 00{:}03{:}47{.}716$ is just that she's really the epitome of

NOTE Confidence: 0.82413155

 $00{:}03{:}47.716 \dashrightarrow 00{:}03{:}49.728$ a gifted clinic physician scientist that

NOTE Confidence: 0.82413155

 $00:03:49.728 \rightarrow 00:03:52.859$ we try to develop in the soulmate program.

NOTE Confidence: 0.82413155

 $00:03:52.860 \longrightarrow 00:03:54.732$ That if you were gonna have

NOTE Confidence: 0.82413155

 $00:03:54.732 \rightarrow 00:03:56.620$ a mascot for the program,

NOTE Confidence: 0.82413155

 $00{:}03{:}56{.}620 \dashrightarrow 00{:}03{:}58{.}330$ he would be the mascot.

NOTE Confidence: 0.82413155

 $00{:}03{:}58{.}330 \dashrightarrow 00{:}04{:}00{.}612$ Either that or a Unicorn and then

 $00:04:00.612 \rightarrow 00:04:02.778$ hopefully people will get that reference.

NOTE Confidence: 0.82413155

 $00{:}04{:}02{.}780 \dashrightarrow 00{:}04{:}06{.}320$ And and then I guess the other thing to say.

NOTE Confidence: 0.82413155

 $00:04:06.320 \longrightarrow 00:04:08.465$ Is a Andres in introduced

NOTE Confidence: 0.82413155

00:04:08.465 - 00:04:10.610 me as a mentor supreme,

NOTE Confidence: 0.82413155

 $00:04:10.610 \longrightarrow 00:04:13.178$ but I think when we're talking

NOTE Confidence: 0.82413155

 $00:04:13.178 \longrightarrow 00:04:14.462$ about this research,

NOTE Confidence: 0.82413155

00:04:14.470 --> 00:04:16.610 I think it's really important

NOTE Confidence: 0.82413155

 $00:04:16.610 \longrightarrow 00:04:18.322$ to recognize that really.

NOTE Confidence: 0.82413155

 $00{:}04{:}18.330 \dashrightarrow 00{:}04{:}21.774$ The idea for this study and this

NOTE Confidence: 0.82413155

 $00:04:21.774 \longrightarrow 00:04:24.920$ line of research really came out

NOTE Confidence: 0.82413155

00:04:24.920 --> 00:04:27.530 of Doctor Dwyer's experience as

NOTE Confidence: 0.82413155

 $00{:}04{:}27{.}530 \dashrightarrow 00{:}04{:}31{.}085$ a as a resident on the CN Ru.

NOTE Confidence: 0.82413155

00:04:31.090 $\operatorname{-->}$ 00:04:33.302 Seeing the I guess the efficacy is

NOTE Confidence: 0.82413155

 $00{:}04{:}33{.}302 \dashrightarrow 00{:}04{:}35{.}914$ of cada mean and esketamine in the

NOTE Confidence: 0.82413155

00:04:35.914 --> 00:04:37.899 studies that were conducted there

 $00:04:37.899 \rightarrow 00:04:40.460$ and adults and really having the

NOTE Confidence: 0.82413155

 $00{:}04{:}40{.}460 \dashrightarrow 00{:}04{:}42{.}550$ vision to recognize the important

NOTE Confidence: 0.82413155

 $00{:}04{:}42.550$ --> $00{:}04{:}44.235$ clinical need in adolescence and

NOTE Confidence: 0.82413155

 $00:04:44.235 \longrightarrow 00:04:46.446$ what a great sort of research

NOTE Confidence: 0.82413155

 $00:04:46.446 \longrightarrow 00:04:48.278$ program that would develop.

NOTE Confidence: 0.82413155

 $00{:}04{:}48.280 \dashrightarrow 00{:}04{:}50.908$ And I think one of my main roles of NOTE Confidence: 0.82413155

 $00{:}04{:}50{.}908 \dashrightarrow 00{:}04{:}53{.}860$ of as a mentor was recognizing her

NOTE Confidence: 0.82413155

 $00{:}04{:}53.860 \dashrightarrow 00{:}04{:}56.478$ brilliance and and being smart enough

NOTE Confidence: 0.82413155

00:04:56.478 --> 00:04:58.920 to encourage her on her pursuits

NOTE Confidence: 0.82413155

 $00:04:58.920 \longrightarrow 00:05:01.730$ and Ann and really take up what's.

NOTE Confidence: 0.82413155

00:05:01.730 --> 00:05:03.505 Turned into a wonderful research

NOTE Confidence: 0.82413155

 $00{:}05{:}03{.}505 \dashrightarrow 00{:}05{:}05{.}280$ program and the other thing

NOTE Confidence: 0.8658514

 $00{:}05{:}05{.}345 \dashrightarrow 00{:}05{:}07{.}788$ I've learned about doing talks with her

NOTE Confidence: 0.8658514

 $00{:}05{:}07.788 \dashrightarrow 00{:}05{:}09.872$ and introducing her is that the more

NOTE Confidence: 0.8658514

 $00:05:09.872 \dashrightarrow 00:05:11.970$ time I give her to talk, the better,

NOTE Confidence: 0.8658514

 $00:05:11.970 \dashrightarrow 00:05:13.890$ so I'm delighted to introduce her.

- NOTE Confidence: 0.6750854
- 00:05:15.370 --> 00:05:17.558 Oh, thank you, Michael.
- NOTE Confidence: 0.6750854
- 00:05:17.558 --> 00:05:19.746 That ladies and gentlemen,
- NOTE Confidence: 0.6750854
- 00:05:19.750 --> 00:05:22.312 is as warm and fuzzy as Michael
- NOTE Confidence: 0.6750854
- $00{:}05{:}22.312 \dashrightarrow 00{:}05{:}24.148$ Bloch gets, and it's wonderful.
- NOTE Confidence: 0.859449
- 00:05:27.050 --> 00:05:29.866 So I really appreciate you guys inviting me.
- NOTE Confidence: 0.859449
- $00:05:29.870 \longrightarrow 00:05:32.348$ Today I realized as Michael was talking
- NOTE Confidence: 0.859449
- 00:05:32.348 --> 00:05:34.438 and naming some of my projects,
- NOTE Confidence: 0.859449
- 00:05:34.440 --> 00:05:36.534 I realized that I sort of
- NOTE Confidence: 0.859449
- $00:05:36.534 \rightarrow 00:05:38.669$ like a long title I guess.
- NOTE Confidence: 0.859449
- $00:05:38.670 \dashrightarrow 00:05:41.029$ So here's one more I'm talking about
- NOTE Confidence: 0.859449
- $00:05:41.029 \rightarrow 00:05:42.890$ rapid acting treatments for pediatric,
- NOTE Confidence: 0.859449
- $00{:}05{:}42.890 \dashrightarrow 00{:}05{:}45.295$ pediatric depression and suicidality and
- NOTE Confidence: 0.859449
- $00:05:45.295 \rightarrow 00:05:48.240$ really thinking about where are we now?
- NOTE Confidence: 0.859449
- $00:05:48.240 \longrightarrow 00:05:50.780$ So let's get going.
- NOTE Confidence: 0.859449
- $00{:}05{:}50{.}780 \dashrightarrow 00{:}05{:}52{.}120$ In terms of disclosures,
- NOTE Confidence: 0.859449

 $00:05:52.120 \longrightarrow 00:05:53.795$ I don't have any relevant

NOTE Confidence: 0.859449

 $00{:}05{:}53{.}795 \dashrightarrow 00{:}05{:}55{.}529$ conflicts of interest to disclose.

NOTE Confidence: 0.859449

 $00:05:55.530 \rightarrow 00:05:58.946$ I've got my research support listed here.

NOTE Confidence: 0.859449

 $00:05:58.950 \dashrightarrow 00:06:01.183$ And then I thought I'd just outline

NOTE Confidence: 0.859449

00:06:01.183 --> 00:06:03.438 what we're going to talk about today,

NOTE Confidence: 0.859449

 $00{:}06{:}03{.}440 \dashrightarrow 00{:}06{:}05{.}888$ so I'm going to talk a little bit

NOTE Confidence: 0.859449

 $00{:}06{:}05{.}888$ --> $00{:}06{:}07{.}299$ about depression and suicide.

NOTE Confidence: 0.859449

 $00:06:07.300 \longrightarrow 00:06:07.942$ And adolescence.

NOTE Confidence: 0.859449

00:06:07.942 --> 00:06:09.547 I'm going to talk about

NOTE Confidence: 0.859449

00:06:09.547 -> 00:06:10.189 interventional psychiatry,

NOTE Confidence: 0.859449

 $00:06:10.190 \longrightarrow 00:06:11.150$ treatment modalities for

NOTE Confidence: 0.859449

 $00{:}06{:}11.150 \dashrightarrow 00{:}06{:}12.110$ depression in adults.

NOTE Confidence: 0.859449

00:06:12.110 --> 00:06:14.999 I am going to focus mostly on CADA mean,

NOTE Confidence: 0.859449

00:06:15.000 --> 00:06:17.889 but I think since this is such a new,

NOTE Confidence: 0.859449

 $00{:}06{:}17.890 \dashrightarrow 00{:}06{:}19.178$ rapidly evolving subfield within

NOTE Confidence: 0.859449

 $00:06:19.178 \rightarrow 00:06:21.473$ psychiatry that it was a good idea

- NOTE Confidence: 0.859449
- $00:06:21.473 \rightarrow 00:06:23.587$ just to give a little overview of

 $00{:}06{:}23.587 \dashrightarrow 00{:}06{:}24.577$ what interventional psychiatry

NOTE Confidence: 0.859449

00:06:24.577 --> 00:06:25.909 even is referring to,

NOTE Confidence: 0.859449

 $00:06:25.910 \longrightarrow 00:06:27.836$ but will focus on cada mean.

NOTE Confidence: 0.859449

 $00:06:27.840 \longrightarrow 00:06:29.080$ And then we'll talk.

NOTE Confidence: 0.859449

00:06:29.080 --> 00:06:31.290 A little bit about pediatric cada mean,

NOTE Confidence: 0.859449

 $00:06:31.290 \longrightarrow 00:06:32.830$ so the work that I've done here

NOTE Confidence: 0.859449

 $00{:}06{:}32.830 \dashrightarrow 00{:}06{:}34.122$ with Michael and Jerry Santa

NOTE Confidence: 0.859449

 $00{:}06{:}34.122 \dashrightarrow 00{:}06{:}35.567$ Cora are single dose randomized

NOTE Confidence: 0.859449

 $00{:}06{:}35{.}567 \dashrightarrow 00{:}06{:}36{.}971$ controlled trial in adolescent

NOTE Confidence: 0.859449

 $00:06:36.971 \longrightarrow 00:06:38.420$ treatment resistant depression.

NOTE Confidence: 0.859449

00:06:38.420 --> 00:06:40.492 And then I'm going to spend a fair

NOTE Confidence: 0.859449

 $00{:}06{:}40.492 \dashrightarrow 00{:}06{:}42.392$ amount of the time talking about

NOTE Confidence: 0.859449

 $00{:}06{:}42.392 \dashrightarrow 00{:}06{:}44.372$ the gaps in our understanding and

NOTE Confidence: 0.859449

 $00:06:44.431 \longrightarrow 00:06:46.135$ as you'll see there are many.

 $00:06:46.140 \longrightarrow 00:06:48.372$ There is a lot of work to do

NOTE Confidence: 0.859449

 $00{:}06{:}48{.}372 \dashrightarrow 00{:}06{:}50{.}297$ and enough work to go around,

NOTE Confidence: 0.859449

 $00{:}06{:}50{.}300 \dashrightarrow 00{:}06{:}52{.}772$ so I'm excited to sort of talk that

NOTE Confidence: 0.859449

 $00{:}06{:}52.772 \dashrightarrow 00{:}06{:}54.880$ through with the broader community.

NOTE Confidence: 0.859449

 $00{:}06{:}54.880 \dashrightarrow 00{:}06{:}56.658$ And then I'll talk about a couple

NOTE Confidence: 0.859449

 $00{:}06{:}56{.}658 \dashrightarrow 00{:}06{:}58{.}308$ ways that my lab is starting

NOTE Confidence: 0.859449

 $00:06:58.308 \longrightarrow 00:06:59.964$ to try to address those gaps,

NOTE Confidence: 0.859449

 $00:06:59.970 \dashrightarrow 00:07:02.581$ and then hopefully there will be a

NOTE Confidence: 0.859449

 $00{:}07{:}02.581 \dashrightarrow 00{:}07{:}05.340$ little bit of time for discussion.

NOTE Confidence: 0.859449

 $00:07:05.340 \dashrightarrow 00:07:07.460$ So I'm interested in adolescence.

NOTE Confidence: 0.859449

 $00{:}07{:}07{.}460 \dashrightarrow 00{:}07{:}09{.}350$ I've been interested in adolescents

NOTE Confidence: 0.859449

 $00:07:09.350 \longrightarrow 00:07:12.110$ since my PhD work and adolescence.

NOTE Confidence: 0.859449

 $00{:}07{:}12.110 \dashrightarrow 00{:}07{:}13.802$ As this group knows,

NOTE Confidence: 0.859449

 $00:07:13.802 \dashrightarrow 00:07:15.917$ is a critical developmental period,

NOTE Confidence: 0.859449

 $00:07:15.920 \longrightarrow 00:07:18.030$ it's the period of transition

NOTE Confidence: 0.859449

 $00:07:18.030 \rightarrow 00:07:19.718$ between childhood and adulthood,

- NOTE Confidence: 0.859449
- $00:07:19.720 \rightarrow 00:07:21.756$ so conservatively defined between

 $00{:}07{:}21.756$ --> $00{:}07{:}24.810$ 12 and 18 years in humans.

NOTE Confidence: 0.859449

 $00{:}07{:}24.810 \dashrightarrow 00{:}07{:}26.854$ And there is a unique set of

NOTE Confidence: 0.859449

 $00{:}07{:}26.854 \dashrightarrow 00{:}07{:}28.341$ behaviors that are conserved

NOTE Confidence: 0.859449

 $00{:}07{:}28.341 \dashrightarrow 00{:}07{:}30.529$ actually across mammalian species,

NOTE Confidence: 0.859449

 $00{:}07{:}30{.}530 \dashrightarrow 00{:}07{:}32{.}495$ and these are familiar features

NOTE Confidence: 0.859449

 $00{:}07{:}32.495 \dashrightarrow 00{:}07{:}34.460$ to folks that have adolescents

NOTE Confidence: 0.859449

 $00:07:34.527 \rightarrow 00:07:36.615$ at home or work with adolescents,

NOTE Confidence: 0.859449

 $00:07:36.620 \longrightarrow 00:07:38.530$ and they include increased risk,

NOTE Confidence: 0.859449

00:07:38.530 --> 00:07:40.750 taking increased novelty seeking,

NOTE Confidence: 0.859449

 $00:07:40.750 \rightarrow 00:07:44.660$ and spending more time with their peers.

NOTE Confidence: 0.859449

00:07:44.660 --> 00:07:47.089 But adole
scence is also a critical time

NOTE Confidence: 0.859449

 $00:07:47.089 \rightarrow 00:07:49.700$ in terms of psychiatric disorders.

NOTE Confidence: 0.859449

 $00{:}07{:}49.700 \dashrightarrow 00{:}07{:}52.780$ So it's a time of onset for things

NOTE Confidence: 0.859449

00:07:52.780 --> 00:07:54.740 like substance use disorders,

 $00:07:54.740 \longrightarrow 00:07:57.644$ and several of the neuro psychiatric

NOTE Confidence: 0.859449

 $00{:}07{:}57{.}644 \dashrightarrow 00{:}08{:}00{.}840$ disorders that we see that persist

NOTE Confidence: 0.859449

 $00:08:00.840 \longrightarrow 00:08:02.010$ into a dulthood.

NOTE Confidence: 0.859449

 $00{:}08{:}02{.}010 \dashrightarrow 00{:}08{:}04{.}986$ And I think that these unique.

NOTE Confidence: 0.859449

 $00:08:04.990 \longrightarrow 00:08:07.090$ Both the strengths and vulnerabilities

NOTE Confidence: 0.859449

 $00{:}08{:}07{.}090 \dashrightarrow 00{:}08{:}09{.}619$ are really mediated by changes in

NOTE Confidence: 0.859449

 $00:08:09.619 \longrightarrow 00:08:10.757$ the structural, neurochemical,

NOTE Confidence: 0.859449

 $00{:}08{:}10.757 \dashrightarrow 00{:}08{:}12.792$ and functional organization of the

NOTE Confidence: 0.859449

 $00{:}08{:}12.792 \dashrightarrow 00{:}08{:}14.880$ brain during this time period.

NOTE Confidence: 0.86093587

00:08:17.180 --> 00:08:19.172 So now I'll focus a little

NOTE Confidence: 0.86093587

 $00{:}08{:}19{.}172 \dashrightarrow 00{:}08{:}20{.}500$ more on a dolescent depression.

NOTE Confidence: 0.86093587

 $00:08:20.500 \rightarrow 00:08:22.486$ And as all of you know,

NOTE Confidence: 0.86093587

 $00:08:22.490 \rightarrow 00:08:24.814$ this is a really significant health problem.

NOTE Confidence: 0.86093587

 $00:08:24.820 \dashrightarrow 00:08:27.682$ I think that is kind of come out and

NOTE Confidence: 0.86093587

 $00:08:27.682 \rightarrow 00:08:30.454$ smacked us in the face with the pandemic,

NOTE Confidence: 0.86093587

 $00:08:30.460 \longrightarrow 00:08:32.488$ even though it was already a

00:08:32.488 --> 00:08:33.840 significant problem pre COVID

NOTE Confidence: 0.86093587

 $00:08:33.902 \rightarrow 00:08:36.452$ nearly one in five adolescents will

NOTE Confidence: 0.86093587

 $00:08:36.452 \rightarrow 00:08:38.152$ experience major depressive disorder.

NOTE Confidence: 0.86093587

 $00:08:38.160 \rightarrow 00:08:40.668$ Suicide is now the second leading

NOTE Confidence: 0.86093587

 $00:08:40.668 \rightarrow 00:08:43.659$ cause of death in this age group.

NOTE Confidence: 0.86093587

00:08:43.660 --> 00:08:47.036 The tabs trial showed us that 40% of

NOTE Confidence: 0.86093587

 $00{:}08{:}47.036 \dashrightarrow 00{:}08{:}48.740$ adolescents with depression failed

NOTE Confidence: 0.86093587

 $00{:}08{:}48.740 \dashrightarrow 00{:}08{:}51.487$ to respond to initial treatment with

NOTE Confidence: 0.86093587

00:08:51.487 --> 00:08:53.707 selective seroton
in reuptake inhibitors.

NOTE Confidence: 0.86093587

 $00{:}08{:}53{.}710$ --> $00{:}08{:}56{.}742$ And then that data was built upon in NOTE Confidence: 0.86093587

 $00:08:56.742 \rightarrow 00:08:59.588$ the tortilla trial and that showed us

NOTE Confidence: 0.86093587

 $00{:}08{:}59{.}588 \dashrightarrow 00{:}09{:}02{.}530$ that of that SSRI resistant population,

NOTE Confidence: 0.86093587

 $00:09:02.530 \longrightarrow 00:09:05.075$ nearly half don't receive relief

NOTE Confidence: 0.86093587

 $00{:}09{:}05{.}075 \dashrightarrow 00{:}09{:}07{.}111$ after either switching medications

NOTE Confidence: 0.86093587

 $00:09:07.111 \longrightarrow 00:09:09.219$ or adding psychotherapy.

 $00:09:09.220 \dashrightarrow 00:09:11.724$ And so that tells me that we need

NOTE Confidence: 0.86093587

00:09:11.724 --> 00:09:13.471 better options for treatment

NOTE Confidence: 0.86093587

00:09:13.471 --> 00:09:15.040 resistant adolescent depression

NOTE Confidence: 0.86093587

 $00:09:15.040 \rightarrow 00:09:17.655$ and the official guidelines really

NOTE Confidence: 0.86093587

00:09:17.722 --> 00:09:19.745 sort of end at the TORIA trial,

NOTE Confidence: 0.86093587

 $00{:}09{:}19.750 \dashrightarrow 00{:}09{:}21.700$ which finished over a decade

NOTE Confidence: 0.86093587

 $00:09:21.700 \longrightarrow 00:09:23.260$ ago at this point.

NOTE Confidence: 0.86093587

 $00{:}09{:}23.260 \dashrightarrow 00{:}09{:}26.627$ And so we really need clinical trials

NOTE Confidence: 0.86093587

00:09:26.627 --> 00:09:30.059 and more more data for this group.

NOTE Confidence: 0.86093587

 $00{:}09{:}30{.}060 \dashrightarrow 00{:}09{:}32{.}125$ I also wanted to bring up some

NOTE Confidence: 0.86093587

 $00:09:32.125 \dashrightarrow 00:09:34.000$ sobering facts about suicide on this.

NOTE Confidence: 0.86093587

00:09:34.000 --> 00:09:36.114 Data is actually a little dated now.

NOTE Confidence: 0.86093587

00:09:36.120 --> 00:09:38.423 I think this was 2017 data from

NOTE Confidence: 0.86093587

 $00:09:38.423 \longrightarrow 00:09:40.641$ the CDC and this was looking

NOTE Confidence: 0.86093587

 $00:09:40.641 \longrightarrow 00:09:42.939$ at high schoolers in the US.

NOTE Confidence: 0.86093587

 $00:09:42.940 \longrightarrow 00:09:45.934$ She reported that 17% had reported

- NOTE Confidence: 0.86093587
- $00:09:45.934 \rightarrow 00:09:47.930$ that they considered attempting

 $00:09:48.009 \longrightarrow 00:09:49.899$ suicide in the last year.

NOTE Confidence: 0.86093587

 $00:09:49.900 \rightarrow 00:09:54.076 14\%$ had a suicide plan in the prior year,

NOTE Confidence: 0.86093587

 $00:09:54.080 \longrightarrow 00:09:56.395$ 8% reported an actual suicide

NOTE Confidence: 0.86093587

 $00:09:56.395 \longrightarrow 00:09:58.247$ attempt in some shape,

NOTE Confidence: 0.86093587

 $00:09:58.250 \longrightarrow 00:09:59.645$ way or form,

NOTE Confidence: 0.86093587

 $00{:}09{:}59{.}645 \dashrightarrow 00{:}10{:}03{.}708$ and then 3% made a suicide attempt

NOTE Confidence: 0.86093587

 $00:10:03.708 \rightarrow 00:10:06.376$ that required medical attention.

NOTE Confidence: 0.86093587

 $00{:}10{:}06{.}380 \dashrightarrow 00{:}10{:}08{.}860$ The actual death rate at this time for

NOTE Confidence: 0.86093587

00:10:08.860 --> 00:10:11.588 suicide was 13 per 100,000 among adolescents,

NOTE Confidence: 0.86093587

 $00{:}10{:}11{.}590 \dashrightarrow 00{:}10{:}15{.}307$ and that comes out to about 5500 per year.

NOTE Confidence: 0.86093587

 $00{:}10{:}15{.}310 \dashrightarrow 00{:}10{:}17{.}120$ I'm some body that really needs

NOTE Confidence: 0.86093587

 $00{:}10{:}17{.}120 \dashrightarrow 00{:}10{:}19{.}679$ tangible things to hang big numbers on,

NOTE Confidence: 0.86093587

00:10:19.680 --> 00:10:22.584 and so I think about Hampton High School,

NOTE Confidence: 0.86093587

 $00{:}10{:}22.590 \dashrightarrow 00{:}10{:}25.494$ which is just down the street from us.

 $00:10:25.500 \rightarrow 00:10:28.048$ Many of our patients attend school here.

NOTE Confidence: 0.86093587

 $00:10:28.050 \longrightarrow 00:10:29.618$ This is 1100 students,

NOTE Confidence: 0.86093587

 $00{:}10{:}29.618 \dashrightarrow 00{:}10{:}32.533$ and so this number is the equivalent

NOTE Confidence: 0.86093587

 $00:10:32.533 \longrightarrow 00:10:35.419$ of losing 5 handed high schools

NOTE Confidence: 0.86093587

 $00:10:35.419 \longrightarrow 00:10:37.360$ to suicide every year.

NOTE Confidence: 0.86093587

 $00:10:37.360 \longrightarrow 00:10:39.400$ And it's just a totally unacceptable

NOTE Confidence: 0.86093587

 $00:10:39.400 \longrightarrow 00:10:43.878$ fact to me. We have so much work to do.

NOTE Confidence: 0.86093587

 $00:10:43.880 \longrightarrow 00:10:45.150$ And we can do better.

NOTE Confidence: 0.88790834

00:10:47.760 --> 00:10:49.937 So I'll just describe a case to

NOTE Confidence: 0.88790834

 $00:10:49.937 \rightarrow 00:10:52.539$ kind of get your minds in the right

NOTE Confidence: 0.88790834

 $00{:}10{:}52{.}539 \dashrightarrow 00{:}10{:}55{.}080$ place as we start to think about.

NOTE Confidence: 0.88790834

 $00:10:55.080 \longrightarrow 00:10:56.380$ Some of the data here,

NOTE Confidence: 0.88790834

 $00{:}10{:}56{.}380 \dashrightarrow 00{:}10{:}58{.}200$ so I'm going to talk about Emma.

NOTE Confidence: 0.88790834

00:10:58.200 --> 00:11:00.013 She was a 13 year old girl

NOTE Confidence: 0.88790834

 $00{:}11{:}00{.}013 \dashrightarrow 00{:}11{:}01{.}319$ who was depressed with me,

NOTE Confidence: 0.88790834

 $00:11:01.320 \longrightarrow 00:11:02.343$ diagnosed with depression

- NOTE Confidence: 0.88790834
- $00:11:02.343 \rightarrow 00:11:04.389$ when she was 12 years old.
- NOTE Confidence: 0.88790834
- 00:11:04.390 --> 00:11:05.882 She tried multiple antidepressant
- NOTE Confidence: 0.88790834
- $00:11:05.882 \rightarrow 00:11:07.374$ medications and talk therapies,
- NOTE Confidence: 0.88790834
- $00:11:07.380 \longrightarrow 00:11:09.250$ but she remained very depressed.
- NOTE Confidence: 0.88790834
- 00:11:09.250 --> 00:11:11.370 She had four psychiatric hospitilization's
- NOTE Confidence: 0.88790834
- $00:11:11.370 \longrightarrow 00:11:14.166$ over a single year and one of
- NOTE Confidence: 0.88790834
- $00:11:14.166 \longrightarrow 00:11:15.978$ them was for over four months.
- NOTE Confidence: 0.88790834
- $00{:}11{:}15{.}980 \dashrightarrow 00{:}11{:}17{.}464$ Her depression and suicidal
- NOTE Confidence: 0.88790834
- $00{:}11{:}17{.}464 \dashrightarrow 00{:}11{:}19{.}690$ ideations and she had made plans
- NOTE Confidence: 0.88790834
- $00{:}11{:}19.761 \dashrightarrow 00{:}11{:}21.973$ to hang herself with the belts and
- NOTE Confidence: 0.88790834
- $00{:}11{:}21{.}973 \dashrightarrow 00{:}11{:}23{.}406$ her parents were understandably
- NOTE Confidence: 0.88790834
- 00:11:23.406 --> 00:11:26.353 terrified and were unable to leave her
- NOTE Confidence: 0.88790834
- $00:11:26.353 \dashrightarrow 00:11:28.964$ supervised for any amount of time.
- NOTE Confidence: 0.88790834
- $00{:}11{:}28{.}964 \dashrightarrow 00{:}11{:}31{.}169$ And none of the hospitalizations,
- NOTE Confidence: 0.88790834
- $00:11:31.170 \rightarrow 00:11:33.746$ medicines or therapies seem to be working,
- NOTE Confidence: 0.88790834

00:11:33.750 --> 00:11:35.222 and everybody, doctors included,

NOTE Confidence: 0.88790834

 $00:11:35.222 \rightarrow 00:11:37.430$ were starting to feel pretty desperate.

NOTE Confidence: 0.88790834

00:11:37.430 --> 00:11:41.561 And I bet a lot of you all know

NOTE Confidence: 0.88790834

00:11:41.561 -> 00:11:44.318 patients or cases like this.

NOTE Confidence: 0.88790834

 $00{:}11{:}44{.}320 \dashrightarrow 00{:}11{:}46{.}623$ So now I'm going to shift towards

NOTE Confidence: 0.88790834

 $00{:}11{:}46.623 \dashrightarrow 00{:}11{:}49.095$ treatment and talk about this idea

NOTE Confidence: 0.88790834

00:11:49.095 --> 00:11:50.517 of interventional psychiatry.

NOTE Confidence: 0.88790834

 $00:11:50.520 \longrightarrow 00:11:52.736$ If we were all in the same room,

NOTE Confidence: 0.88790834

 $00{:}11{:}52.740 \dashrightarrow 00{:}11{:}54.780$ I would ask people to raise their hands

NOTE Confidence: 0.88790834

 $00{:}11{:}54{.}780 \dashrightarrow 00{:}11{:}57{.}190$ on how many people have heard this term.

NOTE Confidence: 0.88790834

 $00{:}11{:}57{.}190 \dashrightarrow 00{:}11{:}59{.}332$ This was a term that was actually

NOTE Confidence: 0.88790834

 $00:11:59.332 \rightarrow 00:12:01.235$ coined in 2014 by Nolan Williams

NOTE Confidence: 0.88790834

00:12:01.235 --> 00:12:03.377 and Mark George down at M USC.

NOTE Confidence: 0.88790834

 $00{:}12{:}03{.}380 \dashrightarrow 00{:}12{:}06{.}926$ And I think part of it was sort of

NOTE Confidence: 0.88790834

 $00:12:06.926 \rightarrow 00:12:10.039$ medical specialty envy a little bit.

NOTE Confidence: 0.88790834

 $00:12:10.040 \rightarrow 00:12:11.816$ So cardiology has interventional

- NOTE Confidence: 0.88790834
- $00:12:11.816 \longrightarrow 00:12:12.260$ cardiologists,
- NOTE Confidence: 0.88790834
- 00:12:12.260 --> 00:12:14.024 radiology has interventional radiologists,
- NOTE Confidence: 0.88790834
- $00:12:14.024 \rightarrow 00:12:16.670$ and so they coined this term
- NOTE Confidence: 0.88790834
- 00:12:16.734 --> 00:12:18.350 interventional psychiatry.
- NOTE Confidence: 0.88790834
- $00{:}12{:}18.350 \dashrightarrow 00{:}12{:}20.750$ And what that encompass is really
- NOTE Confidence: 0.88790834
- $00:12:20.750 \longrightarrow 00:12:21.950$ neuro modulation techniques,
- NOTE Confidence: 0.88790834
- $00{:}12{:}21{.}950 \dashrightarrow 00{:}12{:}24{.}350$ and I'll show some of those.
- NOTE Confidence: 0.88790834
- $00:12:24.350 \longrightarrow 00:12:25.358$ Some are old,
- NOTE Confidence: 0.88790834
- $00{:}12{:}25{.}358 \dashrightarrow 00{:}12{:}27{.}374$ some are new and then also
- NOTE Confidence: 0.88790834
- $00:12:27.374 \rightarrow 00:12:29.201$ encompassing these rapid acting
- NOTE Confidence: 0.88790834
- $00:12:29.201 \rightarrow 00:12:31.101$ pharmacotherapies that typically are
- NOTE Confidence: 0.88790834
- $00{:}12{:}31{.}101 \dashrightarrow 00{:}12{:}33{.}549$ not administered by the oral route,
- NOTE Confidence: 0.88790834
- 00:12:33.550 --> 00:12:37.449 so require some sort of procedural equipment.
- NOTE Confidence: 0.88790834
- $00{:}12{:}37{.}450 \dashrightarrow 00{:}12{:}38{.}695$ So examples include
- NOTE Confidence: 0.88790834
- 00:12:38.695 --> 00:12:40.355 electroconvulsive therapy or ECT,
- NOTE Confidence: 0.88790834

00:12:40.360 - 00:12:43.688 which as you know is an older method,

NOTE Confidence: 0.88790834

 $00{:}12{:}43.690 \dashrightarrow 00{:}12{:}46.595$ but can be a very effective treatment.

NOTE Confidence: 0.88790834

 $00:12:46.600 \rightarrow 00:12:48.644$ Repetitive transcranial magnetic stimulation,

NOTE Confidence: 0.88790834

 $00:12:48.644 \rightarrow 00:12:52.087$ which is a newer treatment that was

NOTE Confidence: 0.88790834

 $00:12:52.087 \rightarrow 00:12:54.503$ sort of inspired by ECT in some ways,

NOTE Confidence: 0.88790834

 $00{:}12{:}54{.}510 \dashrightarrow 00{:}12{:}58{.}030$ but is an outpatient procedure.

NOTE Confidence: 0.88790834

00:12:58.030 --> 00:13:00.900 Deep brain stimulation or vagus

NOTE Confidence: 0.88790834

 $00:13:00.900 \rightarrow 00:13:03.196$ nerve stimulation would also

NOTE Confidence: 0.88790834

 $00{:}13{:}03{.}196 \dashrightarrow 00{:}13{:}05{.}768$ count under this definition.

NOTE Confidence: 0.88790834

 $00{:}13{:}05{.}770 \dashrightarrow 00{:}13{:}07{.}924$ And then when we're thinking about

NOTE Confidence: 0.88790834

 $00:13:07.924 \rightarrow 00:13:10.020$ the rapid acting pharmaco therapies,

NOTE Confidence: 0.88790834

 $00:13:10.020 \rightarrow 00:13:11.875$ we're talking about things like

NOTE Confidence: 0.88790834

 $00:13:11.875 \rightarrow 00:13:14.260$ Esketamine or cada mean infusion therapy.

NOTE Confidence: 0.88790834

 $00:13:14.260 \longrightarrow 00:13:16.576$ And that's kind of what I'll

NOTE Confidence: 0.88790834

00:13:16.576 --> 00:13:18.120 focus my talk on.

NOTE Confidence: 0.88790834

 $00{:}13{:}18{.}120 \dashrightarrow 00{:}13{:}21{.}208$ And then I'll also add this new medication,

- NOTE Confidence: 0.88790834
- 00:13:21.210 --> 00:13:21.596 brexanolone,
- NOTE Confidence: 0.88790834
- $00{:}13{:}21{.}596 \dashrightarrow 00{:}13{:}23{.}526$ which was recently FDA approved
- NOTE Confidence: 0.88790834
- $00{:}13{:}23{.}526 \dashrightarrow 00{:}13{:}25{.}070$ to treat postpartum depression.
- NOTE Confidence: 0.88790834
- $00{:}13{:}25{.}070 \dashrightarrow 00{:}13{:}27{.}198$ So these are the types of treatments that
- NOTE Confidence: 0.88790834
- $00:13:27.198 \longrightarrow 00:13:28.734$ fall under interventional psychiatry
- NOTE Confidence: 0.88790834
- $00{:}13{:}28{.}734 \dashrightarrow 00{:}13{:}31{.}566$ and multiple institutions are now having
- NOTE Confidence: 0.88790834
- 00:13:31.566 --> 00:13:33.180 interventional psychiatry fellowships.
- NOTE Confidence: 0.88790834
- $00:13:33.180 \rightarrow 00:13:36.516$ Not every place has everything on this list.
- NOTE Confidence: 0.88790834
- 00:13:36.520 --> 00:13:39.964 But it's sort of a growing
- NOTE Confidence: 0.88790834
- 00:13:39.964 --> 00:13:41.686 subfield within psychiatry.
- NOTE Confidence: 0.88790834
- 00:13:41.690 --> 00:13:45.610 So I'm going to focus my talk on cada mean.
- NOTE Confidence: 0.88790834
- 00:13:45.610 --> 00:13:47.758 So Cada mean is a medication
- NOTE Confidence: 0.88790834
- $00:13:47.758 \rightarrow 00:13:48.832$ that's traditionally categorized
- NOTE Confidence: 0.88790834
- $00{:}13{:}48.832 \dashrightarrow 00{:}13{:}50.708$ as a dissociative an esthetic.
- NOTE Confidence: 0.88790834
- $00{:}13{:}50{.}710 \dashrightarrow 00{:}13{:}53{.}056$ It's a non competitive MDA or
- NOTE Confidence: 0.88790834

 $00:13:53.056 \rightarrow 00:13:54.229$ glutamate receptor antagonist.

NOTE Confidence: 0.88790834

 $00:13:54.230 \rightarrow 00:13:56.588$ You might remember it from an esthesia,

NOTE Confidence: 0.88790834

00:13:56.590 --> 00:13:58.042 rotations in medical school,

NOTE Confidence: 0.88790834

 $00:13:58.042 \rightarrow 00:14:00.754$ so this is given at higher doses

NOTE Confidence: 0.88790834

 $00{:}14{:}00{.}754 \dashrightarrow 00{:}14{:}01{.}678$ and an esthesia.

NOTE Confidence: 0.88790834

 $00{:}14{:}01{.}680 \dashrightarrow 00{:}14{:}04{.}970$ So like one all the way up to four and

NOTE Confidence: 0.83009076

 $00{:}14{:}05{.}063 \dashrightarrow 00{:}14{:}07{.}618$ a half milligrams per kilogram

NOTE Confidence: 0.83009076

 $00:14:07.618 \longrightarrow 00:14:10.173$ given quickly over a minute.

NOTE Confidence: 0.83009076

 $00{:}14{:}10{.}180 \dashrightarrow 00{:}14{:}11{.}628$ And that contrasts with

NOTE Confidence: 0.83009076

00:14:11.628 --> 00:14:13.076 its use in psychiatry,

NOTE Confidence: 0.83009076

 $00{:}14{:}13.080 \dashrightarrow 00{:}14{:}15.984$ which is at much slower and slower doses.

NOTE Confidence: 0.83009076

 $00:14:15.990 \longrightarrow 00:14:17.805$ So the prototypical dose being

NOTE Confidence: 0.83009076

00:14:17.805 --> 00:14:19.257 .5 milligrams per kilogram,

NOTE Confidence: 0.83009076

 $00{:}14{:}19{.}260 \dashrightarrow 00{:}14{:}22{.}239$ over 40 minutes.

NOTE Confidence: 0.83009076

 $00{:}14{:}22{.}240 \dashrightarrow 00{:}14{:}24{.}620$ When we think about cada means acute

NOTE Confidence: 0.83009076

 $00:14:24.620 \longrightarrow 00:14:26.669$ side effects and safety profile,

- NOTE Confidence: 0.83009076
- $00:14:26.670 \longrightarrow 00:14:28.884$ these are some of the things

 $00:14:28.884 \rightarrow 00:14:30.360$ we think about again.

NOTE Confidence: 0.83009076

 $00{:}14{:}30{.}360 \dashrightarrow 00{:}14{:}32{.}922$ Sort of harkening back to our an esthesia

NOTE Confidence: 0.83009076

 $00:14:32.922 \rightarrow 00:14:35.178$ experience so there can be transient

NOTE Confidence: 0.83009076

 $00{:}14{:}35{.}178$ --> $00{:}14{:}37{.}740$ increases in heart rate and blood pressure.

NOTE Confidence: 0.83009076

 $00:14:37.740 \longrightarrow 00:14:39.216$ Those are dose dependent.

NOTE Confidence: 0.83009076

 $00{:}14{:}39{.}216 \dashrightarrow 00{:}14{:}41{.}430$ It can increase the respiratory rate,

NOTE Confidence: 0.83009076

 $00:14:41.430 \longrightarrow 00:14:43.270$ but it really high doses.

NOTE Confidence: 0.83009076

 $00:14:43.270 \longrightarrow 00:14:45.120$ It could cause respiratory depression.

NOTE Confidence: 0.83009076

 $00{:}14{:}45{.}120 \dashrightarrow 00{:}14{:}48{.}585$ It can cause nausha dizziness or diplopia.

NOTE Confidence: 0.83009076

 $00{:}14{:}48{.}590 \dashrightarrow 00{:}14{:}51{.}902$ And then it can also generate

NOTE Confidence: 0.83009076

00:14:51.902 --> 00:14:53.558 emergent anxiety dysphoria,

NOTE Confidence: 0.83009076

 $00:14:53.560 \dashrightarrow 00:14:55.216$ dissociation like symptoms,

NOTE Confidence: 0.83009076

 $00{:}14{:}55{.}216$ --> $00{:}14{:}56{.}320$ sensory distortions,

NOTE Confidence: 0.83009076

 $00:14:56.320 \longrightarrow 00:14:57.356$ or derealization,

 $00:14:57.356 \rightarrow 00:15:02.390$ so has kind of a unique side effect profile.

NOTE Confidence: 0.84849596

 $00{:}15{:}04{.}520 \dashrightarrow 00{:}15{:}06{.}175$ But the reason that people

NOTE Confidence: 0.84849596

00:15:06.175 --> 00:15:07.830 are excited about cada mean,

NOTE Confidence: 0.84849596

 $00:15:07.830 \rightarrow 00:15:10.105$ and we're willing to tolerate some of

NOTE Confidence: 0.84849596

 $00{:}15{:}10.105 \dashrightarrow 00{:}15{:}12.129$ these side effects was this finding,

NOTE Confidence: 0.84849596

00:15:12.130 --> 00:15:13.454 you know, way back,

NOTE Confidence: 0.84849596

 $00:15:13.454 \rightarrow 00:15:15.109$ almost 20 years ago now,

NOTE Confidence: 0.84849596

 $00:15:15.110 \longrightarrow 00:15:16.765$ showing that ketamin rapidly improves

NOTE Confidence: 0.84849596

 $00{:}15{:}16.765 \dashrightarrow 00{:}15{:}18.089$ depressive symptoms in adults.

NOTE Confidence: 0.84849596

 $00:15:18.090 \longrightarrow 00:15:20.435$ So this was one of the original

NOTE Confidence: 0.84849596

00:15:20.435 --> 00:15:22.060 papers coming out of Yale,

NOTE Confidence: 0.84849596

 $00{:}15{:}22{.}060 \dashrightarrow 00{:}15{:}24{.}517$ and you can see that there is a reduction

NOTE Confidence: 0.84849596

 $00{:}15{:}24{.}517 \dashrightarrow 00{:}15{:}27{.}026$ in depressive symptoms at 240 minutes,

NOTE Confidence: 0.84849596

00:15:27.030 --> 00:15:30.026 24 hours, 48 hours, and 72 hours.

NOTE Confidence: 0.84849596

 $00:15:30.030 \longrightarrow 00:15:32.277$ So when you think about that compared

NOTE Confidence: 0.84849596

 $00:15:32.277 \rightarrow 00:15:33.240$ to traditional antidepressants,

 $00:15:33.240 \longrightarrow 00:15:35.592$ which can take up to 8 weeks to

NOTE Confidence: 0.84849596

 $00{:}15{:}35{.}592 \dashrightarrow 00{:}15{:}36{.}770$ improve depressive symptoms,

NOTE Confidence: 0.84849596

 $00:15:36.770 \longrightarrow 00:15:39.968$ this is a really big deal.

NOTE Confidence: 0.84849596

 $00:15:39.970 \longrightarrow 00:15:42.518$ The inset is looking at the side

NOTE Confidence: 0.84849596

 $00:15:42.518 \longrightarrow 00:15:44.342$ effect timecourse just to show

NOTE Confidence: 0.84849596

 $00:15:44.342 \longrightarrow 00:15:45.997$ that the side effects dissipate

NOTE Confidence: 0.84849596

 $00{:}15{:}45{.}997 \dashrightarrow 00{:}15{:}48{.}336$ and have a separate time course

NOTE Confidence: 0.84849596

 $00:15:48.336 \rightarrow 00:15:50.892$ compared to the efficacy time course.

NOTE Confidence: 0.83453244

00:15:53.590 --> 00:15:56.182 People are also excited about cada

NOTE Confidence: 0.83453244

 $00{:}15{:}56{.}182 \dashrightarrow 00{:}15{:}59{.}725$ mean in a dults from this data from Sam

NOTE Confidence: 0.83453244

 $00{:}15{:}59{.}725 \dashrightarrow 00{:}16{:}02{.}824$ Wilkinson here at Yale showing that Cada

NOTE Confidence: 0.83453244

 $00{:}16{:}02{.}824 \dashrightarrow 00{:}16{:}05{.}764$ mean is also anti suicidal in adults.

NOTE Confidence: 0.83453244

 $00{:}16{:}05{.}770 \dashrightarrow 00{:}16{:}08{.}380$ So even after controlling for its

NOTE Confidence: 0.83453244

 $00{:}16{:}08{.}380 \dashrightarrow 00{:}16{:}11{.}053$ antidepressant effects, there is a

NOTE Confidence: 0.83453244

 $00{:}16{:}11.053 \dashrightarrow 00{:}16{:}14.058$ distinct rapid anti suicide effect.

 $00:16:14.060 \rightarrow 00:16:16.564$ And I think this is a really big

NOTE Confidence: 0.83453244

00:16:16.564 --> 00:16:19.074 deal for child psychiatrist as we

NOTE Confidence: 0.83453244

 $00{:}16{:}19.074 \dashrightarrow 00{:}16{:}21.780$ think about the black box warning.

NOTE Confidence: 0.83453244

00:16:21.780 $-\!>$ 00:16:24.288 So this idea that an antidepressant

NOTE Confidence: 0.83453244

00:16:24.288 --> 00:16:25.960 could simultaneously treat depression

NOTE Confidence: 0.83453244

00:16:26.022 --> 00:16:27.912 but also increase the risk for

NOTE Confidence: 0.83453244

00:16:27.912 $\operatorname{-->}$ 00:16:30.056 suicidal thinking and so a compound

NOTE Confidence: 0.83453244

 $00{:}16{:}30.056 \dashrightarrow 00{:}16{:}31.704$ that's both antidepressant and

NOTE Confidence: 0.83453244

00:16:31.704 --> 00:16:34.132 distinctly anti suicidal would be a

NOTE Confidence: 0.83453244

 $00{:}16{:}34{.}132 \dashrightarrow 00{:}16{:}36{.}448$ very helpful thing in our population.

NOTE Confidence: 0.83453244

 $00{:}16{:}36{.}450$ --> $00{:}16{:}39{.}138$ And I don't think it's always a given NOTE Confidence: 0.83453244

00:16:39.138 --> 00:16:41.850 that these two effects travel together.

NOTE Confidence: 0.7869444

00:16:44.320 --> 00:16:45.888 I'll also mention Esketamine,

NOTE Confidence: 0.7869444

 $00{:}16{:}45.888 \dashrightarrow 00{:}16{:}48.240$ so thinking back to chemistry class,

NOTE Confidence: 0.7869444

 $00{:}16{:}48{.}240 \dashrightarrow 00{:}16{:}50{.}977$ cada mean itself as a receiving mixture.

NOTE Confidence: 0.7869444

 $00:16:50.980 \longrightarrow 00:16:52.940$ It has a left hand,

- NOTE Confidence: 0.7869444
- $00:16:52.940 \longrightarrow 00:16:56.117$ the S an A right hand the R and

 $00{:}16{:}56{.}117 \dashrightarrow 00{:}16{:}58{.}616$ esketamine is just the left sided

NOTE Confidence: 0.7869444

 $00{:}16{:}58.616 \dashrightarrow 00{:}17{:}01.180$ enantiomer of this of cada mean.

NOTE Confidence: 0.7869444

 $00{:}17{:}01{.}180 \dashrightarrow 00{:}17{:}03{.}686$ This was the compound that was developed

NOTE Confidence: 0.7869444

 $00:17:03.686 \rightarrow 00:17:06.268$ by Janssen and recently FDA approved.

NOTE Confidence: 0.7869444

 $00{:}17{:}06.270 \dashrightarrow 00{:}17{:}09.310$ The reason that they chose S cada mean

NOTE Confidence: 0.7869444

 $00:17:09.310 \longrightarrow 00:17:13.278$ is that it has a higher affinity for the

NOTE Confidence: 0.7869444

 $00:17:13.278 \rightarrow 00:17:16.108$ MDA receptor compared to our CADA mean.

NOTE Confidence: 0.7869444

 $00{:}17{:}16{.}110 \dashrightarrow 00{:}17{:}18{.}516$ And they thought that there might

NOTE Confidence: 0.7869444

 $00:17:18.516 \longrightarrow 00:17:21.164$ be some potential for a lower

NOTE Confidence: 0.7869444

 $00:17:21.164 \longrightarrow 00:17:23.092$ amount of dissociative effects

NOTE Confidence: 0.7869444

00:17:23.092 --> 00:17:25.020 compared to Racine Academy.

NOTE Confidence: 0.7869444

 $00:17:25.020 \longrightarrow 00:17:27.862$ This was a big deal when this

NOTE Confidence: 0.7869444

 $00{:}17{:}27.862 \dashrightarrow 00{:}17{:}30.522$ was FDA approved in a dults about

NOTE Confidence: 0.7869444

 $00{:}17{:}30{.}522 \dashrightarrow 00{:}17{:}33{.}228$ probably more than a year ago.

- $00:17:33.230 \longrightarrow 00:17:34.232$ At this point,
- NOTE Confidence: 0.7869444
- $00{:}17{:}34.232 \dashrightarrow 00{:}17{:}36.570$ it's marketed as bravado and the FDA
- NOTE Confidence: 0.7869444
- $00{:}17{:}36.643 \dashrightarrow 00{:}17{:}38.903$ indication is for treatment resistant
- NOTE Confidence: 0.7869444
- 00:17:38.903 > 00:17:41.163 depression in adults when taken
- NOTE Confidence: 0.7869444
- 00:17:41.237 --> 00:17:43.597 alongside a standard antidepressant,
- NOTE Confidence: 0.7869444
- $00{:}17{:}43.600 \dashrightarrow 00{:}17{:}45.760$ and this is an intranasal
- NOTE Confidence: 0.7869444
- 00:17:45.760 --> 00:17:47.920 delivery versus an Ivy infusion,
- NOTE Confidence: 0.7869444
- $00:17:47.920 \longrightarrow 00:17:50.600$ and the pediatric studies
- NOTE Confidence: 0.7869444
- $00{:}17{:}50{.}600 \dashrightarrow 00{:}17{:}53{.}280$ for Esketamine are ongoing.
- NOTE Confidence: 0.7869444
- $00:17:53.280 \rightarrow 00:17:55.646$ I'll talk briefly about mechanism of action,
- NOTE Confidence: 0.7869444
- $00:17:55.650 \longrightarrow 00:17:57.846$ so people were sort of excited
- NOTE Confidence: 0.7869444
- $00{:}17{:}57{.}846 \dashrightarrow 00{:}17{:}59{.}989$ about cada mean because we've had
- NOTE Confidence: 0.7869444
- $00{:}17{:}59{.}989 \dashrightarrow 00{:}18{:}02{.}429$ a long line of SSRI's and SNR eyes,
- NOTE Confidence: 0.7869444
- $00:18:02.430 \longrightarrow 00:18:04.125$ and really focusing on the
- NOTE Confidence: 0.7869444
- $00:18:04.125 \rightarrow 00:18:05.820$ serotonin system and its cousins,
- NOTE Confidence: 0.7869444
- $00:18:05.820 \longrightarrow 00:18:08.460$ and so cademy really has this

- NOTE Confidence: 0.7869444
- $00{:}18{:}08{.}460 \dashrightarrow 00{:}18{:}10{.}220$ distinct mechanism of action.

00:18:10.220 --> 00:18:12.224 Highlight to show this cartoon just

NOTE Confidence: 0.7869444

 $00:18:12.224 \rightarrow 00:18:14.004$ to remind people that Cyantific

NOTE Confidence: 0.7869444

 $00:18:14.004 \rightarrow 00:18:16.266$ cartoons are getting a little much.

NOTE Confidence: 0.7869444

 $00:18:16.270 \longrightarrow 00:18:18.406$ It's hard to really follow this.

NOTE Confidence: 0.7869444

 $00:18:18.410 \longrightarrow 00:18:20.540$ I think for a clinical audience.

NOTE Confidence: 0.7869444

 $00{:}18{:}20{.}540 \dashrightarrow 00{:}18{:}22{.}913$ And So what are the what are

NOTE Confidence: 0.7869444

 $00:18:22.913 \rightarrow 00:18:25.168$ the main points in this figure?

NOTE Confidence: 0.7869444

00:18:25.170 --> 00:18:25.746 You know,

NOTE Confidence: 0.7869444

 $00{:}18{:}25{.}746 \dashrightarrow 00{:}18{:}27{.}762$ the idea is that in depression we

NOTE Confidence: 0.7869444

 $00{:}18{:}27.762 \dashrightarrow 00{:}18{:}29.799$ have reduced synaptic plasticity.

NOTE Confidence: 0.7869444

00:18:29.800 --> 00:18:32.292 You can see this kind of sad

NOTE Confidence: 0.7869444

 $00:18:32.292 \longrightarrow 00:18:33.360$ little dendritic spine.

NOTE Confidence: 0.7869444

00:18:33.360 --> 00:18:35.845 It doesn't have a lot of media,

NOTE Confidence: 0.7869444

 $00:18:35.850 \longrightarrow 00:18:38.178$ and if it doesn't have enough

 $00{:}18{:}38{.}178 \dashrightarrow 00{:}18{:}40{.}160$ glutamate or receptors and then

NOTE Confidence: 0.7869444

 $00{:}18{:}40{.}160 \dashrightarrow 00{:}18{:}42{.}284$ you see this nice healthy synapse

NOTE Confidence: 0.7869444

 $00{:}18{:}42{.}284 \dashrightarrow 00{:}18{:}44{.}110$ on the right hand side.

NOTE Confidence: 0.7869444

 $00{:}18{:}44{.}110 \dashrightarrow 00{:}18{:}47{.}260$ And the idea is that cada mean

NOTE Confidence: 0.7869444

 $00:18:47.260 \longrightarrow 00:18:49.289$ inhibits these inhibitory interneurons

NOTE Confidence: 0.7869444

 $00{:}18{:}49{.}289 \dashrightarrow 00{:}18{:}51{.}669$ and sort of disinhibits.

NOTE Confidence: 0.7869444

00:18:51.670 --> 00:18:54.916 The system causes this burst of

NOTE Confidence: 0.7869444

 $00{:}18{:}54{.}916 \dashrightarrow 00{:}18{:}57{.}893$ glutamate and growth factors and

NOTE Confidence: 0.7869444

00:18:57.893 --> 00:19:00.777 really promotes synaptic plasticity.

NOTE Confidence: 0.7869444

00:19:00.780 --> 00:19:02.640 I've summarized that here because

NOTE Confidence: 0.7869444

00:19:02.640 --> 00:19:05.244 I think it's sort of easier to

NOTE Confidence: 0.7869444

 $00:19:05.244 \longrightarrow 00:19:06.919$ think about it in words.

NOTE Confidence: 0.7869444

 $00{:}19{:}06{.}920 \dashrightarrow 00{:}19{:}09{.}592$ So the bottom line is that cada mean

NOTE Confidence: 0.7869444

00:19:09.592 --> 00:19:10.890 enhances glutamatergic signaling.

NOTE Confidence: 0.7869444

 $00:19:10.890 \dashrightarrow 00:19:12.506$ It promotes synaptic plasticity.

NOTE Confidence: 0.7869444

 $00:19:12.506 \longrightarrow 00:19:15.478$ The key sites of action are the

- NOTE Confidence: 0.7869444
- $00:19:15.478 \rightarrow 00:19:17.838$ prefrontal cortex and the hippocampus.

00:19:17.840 --> 00:19:19.464 There's two main hypotheses.

NOTE Confidence: 0.7869444

 $00{:}19{:}19{.}464 \dashrightarrow 00{:}19{:}23{.}331$ One is the one that I just described in

NOTE Confidence: 0.7869444

00:19:23.331 --> 00:19:26.460 the busy cartoon that NMD a receptors

NOTE Confidence: 0.7869444

 $00:19:26.547 \rightarrow 00:19:29.717$ on inhibitory interneurons are blocked,

NOTE Confidence: 0.7869444

 $00:19:29.720 \longrightarrow 00:19:31.620$ and that basically facilitates

NOTE Confidence: 0.7869444

00:19:31.620 --> 00:19:32.570 glutamate signaling.

NOTE Confidence: 0.7869444

 $00:19:32.570 \longrightarrow 00:19:34.940$ And then there's a second,

NOTE Confidence: 0.7869444

00:19:34.940 --> 00:19:36.760 although not mutually exclusive,

NOTE Confidence: 0.7869444

 $00:19:36.760 \longrightarrow 00:19:39.035$ hypothesis that some of cada

NOTE Confidence: 0.7869444

00:19:39.035 --> 00:19:41.118 means metabolites so hydroxy,

NOTE Confidence: 0.7869444

 $00:19:41.120 \longrightarrow 00:19:44.270$ nor cada mean may sort of bypass

NOTE Confidence: 0.7869444

 $00:19:44.270 \longrightarrow 00:19:46.819$ an MDA receptors in tirolian,

NOTE Confidence: 0.7869444

 $00{:}19{:}46.820 \dashrightarrow 00{:}19{:}49.100$ directly activate AMPA receptors.

NOTE Confidence: 0.7869444

 $00:19:49.100 \longrightarrow 00:19:50.240$ Either way,

 $00:19:50.240 \longrightarrow 00:19:52.265$ both hypotheses are that you

NOTE Confidence: 0.7869444

 $00{:}19{:}52{.}265 \dashrightarrow 00{:}19{:}54{.}290$ know these compounds are pro,

NOTE Confidence: 0.7869444

00:19:54.290 --> 00:19:56.320 glutamatergic and pro synaptic plasticity,

NOTE Confidence: 0.7869444

 $00:19:56.320 \longrightarrow 00:19:56.724$ inducing.

NOTE Confidence: 0.7869444

 $00{:}19{:}56{.}724 \dashrightarrow 00{:}19{:}59{.}956$ If you're interested in more stuff like this,

NOTE Confidence: 0.7869444

 $00:19:59.960 \longrightarrow 00:20:03.432$ put in a plug for the national

NOTE Confidence: 0.7869444

 $00{:}20{:}03{.}432 \dashrightarrow 00{:}20{:}04{.}920$ Neuroscience Curriculum initiative

NOTE Confidence: 0.7869444

 $00{:}20{:}05{.}003 \dashrightarrow 00{:}20{:}07{.}691$ where we have a 10 minute video that

NOTE Confidence: 0.7869444

 $00{:}20{:}07.691 \dashrightarrow 00{:}20{:}10.638$ sort of goes into this in a little

NOTE Confidence: 0.7869444

 $00{:}20{:}10.638 \dashrightarrow 00{:}20{:}12.900$ more depth called sad synapses.

NOTE Confidence: 0.7869444

 $00{:}20{:}12{.}900 \dashrightarrow 00{:}20{:}16{.}060$ So check that out.

NOTE Confidence: 0.83870673

00:20:16.060 --> 00:20:18.100 So thinking about cada mean and

NOTE Confidence: 0.83870673

 $00{:}20{:}18.100 \dashrightarrow 00{:}20{:}19.764$ pediatric pharmacology, what are the

NOTE Confidence: 0.83870673

 $00{:}20{:}19.764 \dashrightarrow 00{:}20{:}22.520$ things that we need to keep in mind?

NOTE Confidence: 0.83870673

 $00:20:22.520 \longrightarrow 00:20:24.410$ So I said at the beginning that

NOTE Confidence: 0.83870673

 $00{:}20{:}24{.}410 \dashrightarrow 00{:}20{:}26{.}577$ the brain is going through rapid

00:20:26.577 --> 00:20:28.297 development during this time,

NOTE Confidence: 0.83870673

 $00:20:28.300 \longrightarrow 00:20:30.304$ and the prefrontal cortex is a

NOTE Confidence: 0.83870673

 $00:20:30.304 \rightarrow 00:20:32.720$ place of big action in that regard.

NOTE Confidence: 0.83870673

 $00:20:32.720 \longrightarrow 00:20:34.764$ So the very place that we think

NOTE Confidence: 0.83870673

 $00{:}20{:}34.764 \dashrightarrow 00{:}20{:}36.883$ Cada mean is working is undergoing

NOTE Confidence: 0.83870673

 $00:20:36.883 \longrightarrow 00:20:38.833$ all of these big changes.

NOTE Confidence: 0.83870673

00:20:38.840 --> 00:20:40.200 So there's synaptic pruning

NOTE Confidence: 0.83870673

 $00{:}20{:}40.200 \dashrightarrow 00{:}20{:}41.220$ of gluta matergic synapses.

NOTE Confidence: 0.83870673

 $00:20:41.220 \longrightarrow 00:20:42.580$ There's a changing relative

NOTE Confidence: 0.83870673

 $00:20:42.580 \longrightarrow 00:20:43.940$ profile of these interneurons,

NOTE Confidence: 0.83870673

 $00{:}20{:}43{.}940 \dashrightarrow 00{:}20{:}45{.}705$ the very places that were

NOTE Confidence: 0.83870673

 $00{:}20{:}45.705 \dashrightarrow 00{:}20{:}47.117$ hypothesising that cada mean.

NOTE Confidence: 0.83870673

 $00{:}20{:}47.120 \dashrightarrow 00{:}20{:}50.030$ Working and even changes in the

NOTE Confidence: 0.83870673

 $00{:}20{:}50.030 \dashrightarrow 00{:}20{:}51.485$ receptor subunit composition

NOTE Confidence: 0.83870673

 $00{:}20{:}51{.}485 \dashrightarrow 00{:}20{:}54{.}068$ across some of these key receptors.
00:20:54.070 - 00:20:56.970 So I think it's not a given in this case,

NOTE Confidence: 0.83870673

 $00{:}20{:}56{.}970 \dashrightarrow 00{:}20{:}58{.}944$ or really in many cases that just

NOTE Confidence: 0.83870673

 $00:20:58.944 \rightarrow 00:21:00.725$ because something works in adults that NOTE Confidence: 0.83870673

00:21:00.725 --> 00:21:02.477 it will work in pediatric populations,

NOTE Confidence: 0.83870673

 $00:21:02.480 \rightarrow 00:21:07.310$ or that it even will work in the same way.

NOTE Confidence: 0.83870673

 $00{:}21{:}07{.}310 \dashrightarrow 00{:}21{:}09{.}081$ But what we do know is that

NOTE Confidence: 0.83870673

00:21:09.081 --> 00:21:10.930 we've got some preclinical data,

NOTE Confidence: 0.83870673

 $00{:}21{:}10{.}930 \dashrightarrow 00{:}21{:}12{.}736$ and that suggests that CADA mean

NOTE Confidence: 0.83870673

00:21:12.736 --> 00:21:13.940 can reverse depressive phenotypes

NOTE Confidence: 0.83870673

 $00:21:13.992 \longrightarrow 00:21:14.859$ in adolescent rats.

NOTE Confidence: 0.83870673

 $00:21:14.860 \longrightarrow 00:21:16.967$ So we've got that going for us.

NOTE Confidence: 0.83870673

 $00{:}21{:}16{.}970 \dashrightarrow 00{:}21{:}19{.}082$ And then we also know that Keta mean

NOTE Confidence: 0.83870673

 $00{:}21{:}19.082 \dashrightarrow 00{:}21{:}21.352$ has been used safely as an acute

NOTE Confidence: 0.83870673

 $00:21:21.352 \rightarrow 00:21:23.620$ anesthetic in Pediatrics for over 50 years,

NOTE Confidence: 0.83870673

 $00:21:23.620 \longrightarrow 00:21:26.028$ so we have enough data to go on.

NOTE Confidence: 0.83870673

 $00:21:26.030 \longrightarrow 00:21:28.165$ I think that this is at least

- NOTE Confidence: 0.83870673
- $00:21:28.165 \longrightarrow 00:21:29.659$ a reasonable thing to test,

 $00{:}21{:}29.660 \dashrightarrow 00{:}21{:}31.466$ and so that's what we did.

NOTE Confidence: 0.83870673

 $00:21:31.470 \longrightarrow 00:21:33.350$ This was part of the work I did

NOTE Confidence: 0.83870673

 $00:21:33.350 \longrightarrow 00:21:35.399$ is a soulmate resident here.

NOTE Confidence: 0.83870673

 $00:21:35.400 \longrightarrow 00:21:37.338$ We call this the kids study.

NOTE Confidence: 0.83870673

00:21:37.340 --> 00:21:39.086 A cada mean in a dolescent depression

NOTE Confidence: 0.83870673

 $00{:}21{:}39.086 \dashrightarrow 00{:}21{:}41.054$ study and we asked a simple question

NOTE Confidence: 0.83870673

00:21:41.054 --> 00:21:43.263 is a single dose of cada mean safe

NOTE Confidence: 0.83870673

 $00{:}21{:}43.263 \dashrightarrow 00{:}21{:}45.323$ and effective in adolescents with

NOTE Confidence: 0.83870673

 $00:21:45.323 \rightarrow 00:21:46.559$ treatment resistant depression?

NOTE Confidence: 0.83870673

 $00{:}21{:}46{.}560 \dashrightarrow 00{:}21{:}48{.}954$ And this was funded by a pilot

NOTE Confidence: 0.83870673

00:21:48.954 --> 00:21:51.132 award here at Child Study Center

NOTE Confidence: 0.83870673

 $00{:}21{:}51{.}132 \dashrightarrow 00{:}21{:}54{.}106$ as well as the grant from 8 cap

NOTE Confidence: 0.83870673

 $00{:}21{:}54.106 \dashrightarrow 00{:}21{:}56.440$ in the Flash for Research Fund.

NOTE Confidence: 0.83870673

 $00:21:56.440 \longrightarrow 00:21:57.232$ In this paper,

00:21:57.232 --> 00:22:00.538 just came out in a JP a couple of weeks ago,

NOTE Confidence: 0.83870673

 $00:22:00.540 \longrightarrow 00:22:02.577$ so I'll tell you about the folks

NOTE Confidence: 0.83870673

 $00:22:02.577 \longrightarrow 00:22:04.348$ that we included in this study,

NOTE Confidence: 0.83870673

 $00:22:04.350 \rightarrow 00:22:06.738$ so we were looking for adolescents.

NOTE Confidence: 0.83870673

 $00:22:06.740 \longrightarrow 00:22:09.560$ We were looking for depressed adolescents.

NOTE Confidence: 0.83870673

 $00:22:09.560 \rightarrow 00:22:11.910$ We were looking for significantly

NOTE Confidence: 0.83870673

 $00:22:11.910 \longrightarrow 00:22:12.850$ depressed adolescents.

NOTE Confidence: 0.83870673

00:22:12.850 --> 00:22:15.150 So children's depression rating

NOTE Confidence: 0.83870673

 $00{:}22{:}15{.}150 \dashrightarrow 00{:}22{:}18{.}025$ scale score of over 40.

NOTE Confidence: 0.83870673

 $00:22:18.030 \rightarrow 00:22:19.950$ We were looking for treatment resistance

NOTE Confidence: 0.83870673

 $00:22:19.950 \rightarrow 00:22:22.201$ and here we define that as having

NOTE Confidence: 0.83870673

 $00{:}22{:}22{.}201 \dashrightarrow 00{:}22{:}24{.}025$ failed to achieve remission with at

NOTE Confidence: 0.83870673

 $00:22:24.025 \longrightarrow 00:22:26.070$ least one prior antidepressant trial.

NOTE Confidence: 0.83870673

 $00{:}22{:}26.070 \dashrightarrow 00{:}22{:}27.402$ Although as you'll see,

NOTE Confidence: 0.83870673

 $00:22:27.402 \rightarrow 00:22:30.428$ our sample for the most part had tried many,

NOTE Confidence: 0.83870673

 $00:22:30.430 \rightarrow 00:22:34.462$ many medications by the time they came to us.

- NOTE Confidence: 0.83870673
- $00:22:34.470 \longrightarrow 00:22:36.619$ And this was a cada mean in

 $00{:}22{:}36{.}619 \dashrightarrow 00{:}22{:}38{.}240$ addition to kind of study.

NOTE Confidence: 0.83870673

 $00:22:38.240 \longrightarrow 00:22:40.494$ So folks needed to stay stable on

NOTE Confidence: 0.83870673

 $00:22:40.494 \rightarrow 00:22:41.808$ their psychiatric medications for

NOTE Confidence: 0.83870673

 $00:22:41.808 \longrightarrow 00:22:43.258$ the month prior to enrollment,

NOTE Confidence: 0.83870673

 $00{:}22{:}43.260 \dashrightarrow 00{:}22{:}44.825$ and were allowed to continue

NOTE Confidence: 0.83870673

00:22:44.825 - 00:22:45.764 with ongoing psychotherapy.

NOTE Confidence: 0.83870673

 $00:22:45.770 \longrightarrow 00:22:48.906$ So it's really cada mean in addition to.

NOTE Confidence: 0.83870673

 $00{:}22{:}48{.}910 \dashrightarrow 00{:}22{:}52{.}018$ The regimen you're on that's not working.

NOTE Confidence: 0.83870673

 $00{:}22{:}52{.}020 \dashrightarrow 00{:}22{:}54{.}348$ The folks that we did not

NOTE Confidence: 0.83870673

 $00:22:54.348 \longrightarrow 00:22:55.900$ include in this study,

NOTE Confidence: 0.83870673

 $00{:}22{:}55{.}900 \dashrightarrow 00{:}22{:}58{.}228$ so this was an outpatient study.

NOTE Confidence: 0.83870673

 $00{:}22{:}58{.}230 \dashrightarrow 00{:}22{:}59{.}925$ We excluded folks that were

NOTE Confidence: 0.83870673

 $00{:}22{:}59{.}925 \dashrightarrow 00{:}23{:}02{.}116$ in patient at the time or had

NOTE Confidence: 0.83870673

 $00{:}23{:}02{.}116 \dashrightarrow 00{:}23{:}03{.}836$ active suicidal ideations that

 $00:23:03.836 \rightarrow 00:23:05.986$ will require an inpatient stay.

NOTE Confidence: 0.83870673

00:23:05.990 --> 00:23:07.925 So while the depression criteria

NOTE Confidence: 0.83870673

00:23:07.925 --> 00:23:09.086 were relatively stringent,

NOTE Confidence: 0.83870673

 $00{:}23{:}09{.}090 \dashrightarrow 00{:}23{:}11{.}136$ we did not allow for a

NOTE Confidence: 0.83870673

00:23:11.136 --> 00:23:12.500 large degree of suicidal

NOTE Confidence: 0.8662833

 $00{:}23{:}12.582 \dashrightarrow 00{:}23{:}14.907$ ideations in this initial study,

NOTE Confidence: 0.8662833

 $00:23:14.910 \longrightarrow 00:23:17.479$ we excluded folks that had a history

NOTE Confidence: 0.8662833

 $00:23:17.479 \longrightarrow 00:23:19.906$ of psychotic disorder or manic episode

NOTE Confidence: 0.8662833

00:23:19.906 --> 00:23:21.578 history of substance dependence

NOTE Confidence: 0.8662833

00:23:21.578 --> 00:23:23.600 or positive urine toxicology.

NOTE Confidence: 0.8662833

 $00{:}23{:}23{.}600 \dashrightarrow 00{:}23{:}26{.}600$ Pregnancy or anyone that was unable

NOTE Confidence: 0.8662833

 $00{:}23{:}26.600 \dashrightarrow 00{:}23{:}29.320$ to provide written informed consent.

NOTE Confidence: 0.8662833

 $00{:}23{:}29{.}320 \dashrightarrow 00{:}23{:}31{.}760$ I'll talk a minute about the controls and

NOTE Confidence: 0.8662833

00:23:31.760 --> 00:23:34.196 blinding so place
bo rates are pretty high

NOTE Confidence: 0.8662833

 $00{:}23{:}34.196 \dashrightarrow 00{:}23{:}36.360$ in depression trials across the board,

NOTE Confidence: 0.8662833

 $00:23:36.360 \longrightarrow 00:23:38.035$ but they're really high in

- NOTE Confidence: 0.8662833
- 00:23:38.035 --> 00:23:39.040 pediatric depression trials,

 $00:23:39.040 \longrightarrow 00:23:42.046$ and we can talk about the reasons for that.

NOTE Confidence: 0.8662833

 $00:23:42.050 \longrightarrow 00:23:44.330$ If you all are interested.

NOTE Confidence: 0.8662833

 $00:23:44.330 \rightarrow 00:23:46.250$ But we thought it was really

NOTE Confidence: 0.8662833

 $00:23:46.250 \longrightarrow 00:23:48.341$ important to have a control and

NOTE Confidence: 0.8662833

 $00:23:48.341 \longrightarrow 00:23:50.196$ to have a rigorous control,

NOTE Confidence: 0.8662833

 $00{:}23{:}50{.}200 \dashrightarrow 00{:}23{:}52{.}132$ and so we used midazolam as

NOTE Confidence: 0.8662833

 $00{:}23{:}52{.}132 \dashrightarrow 00{:}23{:}53{.}990$ what's called an active control.

NOTE Confidence: 0.8662833

 $00{:}23{:}53{.}990 \dashrightarrow 00{:}23{:}56{.}405$ So mad as Liam is a benzo diazepine,

NOTE Confidence: 0.8662833

 $00{:}23{:}56{.}410 \dashrightarrow 00{:}23{:}58{.}408$ it has some acute effects that

NOTE Confidence: 0.8662833

 $00:23:58.408 \longrightarrow 00:24:00.862$ we think might mimic some of the

NOTE Confidence: 0.8662833

 $00{:}24{:}00{.}862 \dashrightarrow 00{:}24{:}02{.}617$ acute effects that Ketamin has,

NOTE Confidence: 0.8662833

 $00:24:02.620 \rightarrow 00:24:06.589$ and it has a similar pharmacokinetic profile.

NOTE Confidence: 0.8662833

 $00{:}24{:}06{.}590 \dashrightarrow 00{:}24{:}08{.}250$ Additional measures we took to

NOTE Confidence: 0.8662833

 $00:24:08.250 \longrightarrow 00:24:09.910$ protect the blind included having

00:24:09.962 --> 00:24:11.827 separate safety and efficacy raters,

NOTE Confidence: 0.8662833

 $00{:}24{:}11.830 \dashrightarrow 00{:}24{:}14.518$ so folks that were there for the

NOTE Confidence: 0.8662833

 $00{:}24{:}14{.}518$ --> $00{:}24{:}17{.}104$ infusion or separate from the folks NOTE Confidence: 0.8662833

 $00{:}24{:}17.104 \dashrightarrow 00{:}24{:}19.369$ that performed the efficacy rating.

NOTE Confidence: 0.8662833

00:24:19.370 --> 00:24:21.617 So all the ratings were down at

NOTE Confidence: 0.8662833

 $00:24:21.617 \rightarrow 00:24:23.658$ the Child Study Center and all

NOTE Confidence: 0.8662833

00:24:23.658 --> 00:24:25.668 of the infusions here were done

NOTE Confidence: 0.8662833

 $00{:}24{:}25.668 \dashrightarrow 00{:}24{:}27.917$ at the hospital research unit.

NOTE Confidence: 0.8662833

 $00{:}24{:}27{.}920 \dashrightarrow 00{:}24{:}30{.}070$ This is the study design,

NOTE Confidence: 0.8662833

 $00:24:30.070 \longrightarrow 00:24:32.210$ so this was a randomized,

NOTE Confidence: 0.8662833

 $00{:}24{:}32{.}210 \dashrightarrow 00{:}24{:}34{.}218$ medazzal and controlled crossover trial.

NOTE Confidence: 0.8662833

 $00{:}24{:}34{.}218 \dashrightarrow 00{:}24{:}37{.}969$ It was a four week study so infusion

NOTE Confidence: 0.8662833

 $00{:}24{:}37{.}969 \dashrightarrow 00{:}24{:}41{.}563$ days were on day zero and a 14 on those

NOTE Confidence: 0.8662833

 $00{:}24{:}41{.}563 \dashrightarrow 00{:}24{:}44{.}197$ days are participants got an infusion

NOTE Confidence: 0.8662833

 $00{:}24{:}44{.}197 \dashrightarrow 00{:}24{:}46{.}796$ of either khetani Norma Dazzle lamb.

NOTE Confidence: 0.8662833

 $00{:}24{:}46.796 \dashrightarrow 00{:}24{:}49.820$ These are sort of standard weight based

- NOTE Confidence: 0.8662833
- $00{:}24{:}49{.}820 \dashrightarrow 00{:}24{:}52{.}466$ doses from the adult literature so CATA

00:24:52.466 --> 00:24:55.159 beta .5 milligrams per kilogram spread

NOTE Confidence: 0.8662833

 $00:24:55.159 \rightarrow 00:24:58.382$ over 40 minutes and medazzaland at 0.04.

NOTE Confidence: 0.8662833

 $00:24:58.382 \longrightarrow 00:25:00.542$ 5 milligrams per kilogram also

NOTE Confidence: 0.8662833

 $00:25:00.542 \longrightarrow 00:25:03.150$ spread over 40 minutes every hour.

NOTE Confidence: 0.8662833

 $00{:}25{:}03{.}150 \dashrightarrow 00{:}25{:}06{.}139$ We looked at side effect rating scales.

NOTE Confidence: 0.8662833

 $00{:}25{:}06{.}140 \dashrightarrow 00{:}25{:}08{.}810$ We also collected some blood samples

NOTE Confidence: 0.8662833

 $00{:}25{:}08{.}810 \dashrightarrow 00{:}25{:}12{.}347$ from these patients to look at cademy

NOTE Confidence: 0.8662833

 $00:25:12.347 \rightarrow 00:25:14.587$ metabolites and potential biomarkers.

NOTE Confidence: 0.8662833

00:25:14.590 --> 00:25:15.262 And then,

NOTE Confidence: 0.8662833

 $00:25:15.262 \longrightarrow 00:25:16.606$ as you might imagine,

NOTE Confidence: 0.8662833

 $00{:}25{:}16.610 \dashrightarrow 00{:}25{:}18.285$ we talked with these participants

NOTE Confidence: 0.8662833

 $00:25:18.285 \longrightarrow 00:25:19.290$ quite a lot,

NOTE Confidence: 0.8662833

 $00:25:19.290 \longrightarrow 00:25:21.898$ so we did reading scales on all of

NOTE Confidence: 0.8662833

 $00{:}25{:}21.898 \dashrightarrow 00{:}25{:}24.330$ the day's noted here in a subset.

 $00{:}25{:}24{.}330 \dashrightarrow 00{:}25{:}27{.}018$ We actually did a little bit of neuroimaging,

NOTE Confidence: 0.8662833

 $00{:}25{:}27{.}020$ --> $00{:}25{:}29{.}365$ and also did some implicit association tests.

NOTE Confidence: 0.8703232

 $00{:}25{:}32.050 \dashrightarrow 00{:}25{:}34.276$ So this is the participant flow through

NOTE Confidence: 0.8703232

 $00:25:34.276 \rightarrow 00:25:36.800$ this study we assessed 26 participants.

NOTE Confidence: 0.8703232

 $00:25:36.800 \longrightarrow 00:25:39.348$ 19 of those consented for the trial,

NOTE Confidence: 0.8703232

 $00{:}25{:}39{.}350 \dashrightarrow 00{:}25{:}42{.}270$ 17 went on to receive the first infusion,

NOTE Confidence: 0.8703232

 $00{:}25{:}42{.}270 \dashrightarrow 00{:}25{:}44{.}702$ so one with drew prior to the first infusion

NOTE Confidence: 0.8703232

 $00{:}25{:}44.702 \dashrightarrow 00{:}25{:}47.380$ due to an undisclosed medical condition.

NOTE Confidence: 0.8703232

 $00{:}25{:}47{.}380 \dashrightarrow 00{:}25{:}49{.}205$ And then one panicked prior

NOTE Confidence: 0.8703232

 $00:25:49.205 \longrightarrow 00:25:50.665$ to the first infusion,

NOTE Confidence: 0.8703232

 $00{:}25{:}50.670 \dashrightarrow 00{:}25{:}53.430$ right as we were about to hit start

NOTE Confidence: 0.8703232

 $00{:}25{:}53.430 \dashrightarrow 00{:}25{:}56.554$ on the pump and decided that he

NOTE Confidence: 0.8703232

 $00{:}25{:}56{.}554 \dashrightarrow 00{:}25{:}58{.}899$ would prefer not to participate.

NOTE Confidence: 0.8703232

 $00:25:58.900 \longrightarrow 00:26:01.462$ Out of those, 1711 were randomized by

NOTE Confidence: 0.8703232

 $00:26:01.462 \rightarrow 00:26:03.380$ the Investigational Drug Service to

NOTE Confidence: 0.8703232

 $00:26:03.380 \rightarrow 00:26:05.275$ receive the sequence of midazolam,

- NOTE Confidence: 0.8703232
- $00:26:05.280 \longrightarrow 00:26:06.620$ and then cada mean,

 $00:26:06.620 \longrightarrow 00:26:08.630$ and then six were randomized to

NOTE Confidence: 0.8703232

 $00:26:08.702 \longrightarrow 00:26:10.148$ the opposite sequence.

NOTE Confidence: 0.8703232

00:26:10.150 - 00:26:13.524 Cada mean, and then the dazzle AM.

NOTE Confidence: 0.8703232

 $00{:}26{:}13.530 \dashrightarrow 00{:}26{:}15.826$ All of the folks on the left completed

NOTE Confidence: 0.8703232

 $00{:}26{:}15.826 \dashrightarrow 00{:}26{:}17.818$ the second infusion and then on the

NOTE Confidence: 0.8703232

00:26:17.818 --> 00:26:20.052 right you can see one person improved

NOTE Confidence: 0.8703232

 $00:26:20.052 \rightarrow 00:26:22.518$ after they received that first infusion,

NOTE Confidence: 0.8703232

 $00{:}26{:}22.520 \dashrightarrow 00{:}26{:}24.662$ an withdrew from the study to go

NOTE Confidence: 0.8703232

 $00{:}26{:}24.662 \dashrightarrow 00{:}26{:}26.689$ receive cada mean in the community,

NOTE Confidence: 0.8703232

 $00{:}26{:}26{.}690 \dashrightarrow 00{:}26{:}28{.}616$ and after we broke the blind,

NOTE Confidence: 0.8703232

 $00{:}26{:}28.620 \dashrightarrow 00{:}26{:}31.095$ it was determined that participant

NOTE Confidence: 0.8703232

00:26:31.095 --> 00:26:33.570 did indeed receive cada mean.

NOTE Confidence: 0.8703232

 $00:26:33.570 \longrightarrow 00:26:35.330$ This is describing our sample,

NOTE Confidence: 0.8703232

 $00:26:35.330 \longrightarrow 00:26:37.142$ so this was a heavily female

 $00:26:37.142 \rightarrow 00:26:39.254$ sample which I think is consistent

NOTE Confidence: 0.8703232

 $00{:}26{:}39{.}254 \dashrightarrow 00{:}26{:}40{.}938$ with the gender difference.

NOTE Confidence: 0.8703232

 $00:26:40.940 \longrightarrow 00:26:42.344$ In depressione incidents we

NOTE Confidence: 0.8703232

 $00:26:42.344 \rightarrow 00:26:44.099$ see that emerges after puberty,

NOTE Confidence: 0.8703232

 $00:26:44.100 \longrightarrow 00:26:46.206$ the average age was 15 1/2,

NOTE Confidence: 0.8703232

 $00{:}26{:}46{.}210 \dashrightarrow 00{:}26{:}48{.}289$ but if you check out the histogram

NOTE Confidence: 0.8703232

 $00:26:48.289 \longrightarrow 00:26:50.782$ you can see that we had pretty

NOTE Confidence: 0.8703232

 $00{:}26{:}50.782 \dashrightarrow 00{:}26{:}52.310$ good representation across the

NOTE Confidence: 0.8703232

 $00{:}26{:}52{.}310 \dashrightarrow 00{:}26{:}54{.}628$ age range that we were targeting.

NOTE Confidence: 0.8703232

 $00{:}26{:}54{.}630 \dashrightarrow 00{:}26{:}56{.}736$ About half were local to Connecticut.

NOTE Confidence: 0.8703232

 $00{:}26{:}56{.}740 \dashrightarrow 00{:}26{:}59{.}001$ If you look at the baseline scores

NOTE Confidence: 0.8703232

 $00:26:59.001 \rightarrow 00:27:01.298$ for folks that use these measures,

NOTE Confidence: 0.8703232

 $00{:}27{:}01{.}300 \dashrightarrow 00{:}27{:}02{.}976$ these are high scores.

NOTE Confidence: 0.8703232

 $00:27:02.976 \longrightarrow 00:27:06.449$ So a CDRS with an average around 63.

NOTE Confidence: 0.8703232

 $00{:}27{:}06{.}450 \dashrightarrow 00{:}27{:}09{.}030$ That's pretty similar to the baseline

NOTE Confidence: 0.8703232

 $00:27:09.030 \rightarrow 00:27:11.190$ characteristics in the tortilla study,

- NOTE Confidence: 0.8703232
- $00:27:11.190 \longrightarrow 00:27:14.370$ and a mattress of 33.

00:27:14.370 - 00:27:16.110 The average age of depression

NOTE Confidence: 0.8703232

 $00:27:16.110 \longrightarrow 00:27:18.697$ onset was 13 years and the average

NOTE Confidence: 0.8703232

 $00{:}27{:}18.697 \dashrightarrow 00{:}27{:}20.257$ duration was 21 months.

NOTE Confidence: 0.8703232

 $00{:}27{:}20{.}260 \dashrightarrow 00{:}27{:}23{.}239$ So you can see that these are folks that

NOTE Confidence: 0.8703232

 $00{:}27{:}23{.}239 \dashrightarrow 00{:}27{:}26{.}505$ had been depressed for a really long time.

NOTE Confidence: 0.8703232

 $00:27:26.510 \longrightarrow 00:27:28.350$ This is a really chronic,

NOTE Confidence: 0.8703232

 $00{:}27{:}28.350 \dashrightarrow 00{:}27{:}30.240$ relatively severe sample and the

NOTE Confidence: 0.8703232

 $00{:}27{:}30{.}240 \dashrightarrow 00{:}27{:}32{.}130$ average number of failed antidepressant

NOTE Confidence: 0.8703232

 $00:27:32.188 \longrightarrow 00:27:33.868$ trials was hovering around 3:00.

NOTE Confidence: 0.8703232

 $00{:}27{:}33{.}870 \dashrightarrow 00{:}27{:}36{.}078$ So even though our entry criteria

NOTE Confidence: 0.8703232

 $00{:}27{:}36.078 \dashrightarrow 00{:}27{:}37.182$ required only one,

NOTE Confidence: 0.8703232

 $00{:}27{:}37{.}190 \dashrightarrow 00{:}27{:}40{.}390$ most people had failed several.

NOTE Confidence: 0.8703232

 $00{:}27{:}40{.}390 \dashrightarrow 00{:}27{:}42{.}070$ In further characterizing the sample,

NOTE Confidence: 0.8703232

 $00{:}27{:}42.070 \dashrightarrow 00{:}27{:}44.667$ about half had a history of suicide

NOTE Confidence: 0.8703232 $00:27:49.360 \longrightarrow 00:27:50.584$ And as I mentioned, NOTE Confidence: 0.8703232 $00:27:50.584 \rightarrow 00:27:52.850$ this was a study where folks stayed NOTE Confidence: 0.8703232 $00{:}27{:}52.850 \dashrightarrow 00{:}27{:}55.028$ on their medications and got cada NOTE Confidence: 0.8703232 00:27:55.028 --> 00:27:57.669 mean in addition to so this list NOTE Confidence: 0.8703232 $00{:}27{:}57.669 \dashrightarrow 00{:}27{:}59.149$ is characterizing what kinds NOTE Confidence: 0.8703232 $00:27:59.149 \rightarrow 00:28:00.946$ of medicine's people were on. NOTE Confidence: 0.8703232 $00:28:00.946 \longrightarrow 00:28:01.650$ So unsurprisingly, NOTE Confidence: 0.8703232 00:28:01.650 --> 00:28:05.634 many people on an SSRI or SNR I. NOTE Confidence: 0.8703232 $00:28:05.640 \longrightarrow 00:28:06.906$ About percent with NOTE Confidence: 0.8703232 $00{:}28{:}06{.}906 \dashrightarrow 00{:}28{:}07{.}750$ antipsychotic augmentation. NOTE Confidence: 0.8703232 00:28:07.750 --> 00:28:09.970 One person on lithium and then NOTE Confidence: 0.8703232 $00:28:09.970 \longrightarrow 00:28:12.027$ a couple other mood stabilizer NOTE Confidence: 0.8703232 $00:28:12.027 \rightarrow 00:28:14.497$ medications in there as well, NOTE Confidence: 0.8703232 $00:28:14.500 \rightarrow 00:28:17.355$ and two participants that were 49

 $00:27:44.667 \rightarrow 00:27:47.254$ attempt little more than half had a

00:27:47.254 --> 00:27:49.360 history of non suicidal self injury.

- NOTE Confidence: 0.8703232
- 00:28:17.355 --> 00:28:19.639 not taking any medication.

 $00:28:19.640 \longrightarrow 00:28:22.615$ OK, so let's look at the data.

NOTE Confidence: 0.8703232

 $00{:}28{:}22.620 \dashrightarrow 00{:}28{:}25.170$ Our primary outcome was the mattress.

NOTE Confidence: 0.8703232

 $00:28:25.170 \longrightarrow 00:28:26.966$ 24 hours after infusion,

NOTE Confidence: 0.8703232

 $00{:}28{:}26.966 \dashrightarrow 00{:}28{:}28.762$ comparing participants after they

NOTE Confidence: 0.8703232

 $00{:}28{:}28{.}762 \dashrightarrow 00{:}28{:}30{.}689$ received medazzal and versus cada mean.

NOTE Confidence: 0.8703232

00:28:30.690 --> 00:28:32.820 And as you can see,

NOTE Confidence: 0.8703232

00:28:32.820 --> 00:28:34.940 depression scores went down significantly

NOTE Confidence: 0.8703232

 $00:28:34.940 \longrightarrow 00:28:36.636$ following cada mean treatment.

NOTE Confidence: 0.8703232

 $00:28:36.640 \longrightarrow 00:28:40.040$ This is an effect size of about .75,

NOTE Confidence: 0.8703232

 $00{:}28{:}40{.}040 \dashrightarrow 00{:}28{:}43{.}638$ which is pretty similar to the adult

NOTE Confidence: 0.8703232

 $00{:}28{:}43.638 \dashrightarrow 00{:}28{:}46.870$ literature for midazolam controlled studies.

NOTE Confidence: 0.8703232

 $00:28:46.870 \longrightarrow 00:28:49.306$ If we dig in a little deeper,

NOTE Confidence: 0.8183757

 $00{:}28{:}49{.}310 \dashrightarrow 00{:}28{:}51{.}060$ so past this primary outcome,

NOTE Confidence: 0.8183757

 $00:28:51.060 \rightarrow 00:28:53.844$ we can look at the percentage of responders.

 $00:28:53.850 \rightarrow 00:28:56.106$ So here on the right you can see

NOTE Confidence: 0.8183757

 $00:28:56.106 \rightarrow 00:28:57.983$ that there were eight participants

NOTE Confidence: 0.8183757

 $00:28:57.983 \longrightarrow 00:29:00.473$ that responded to cada mean only,

NOTE Confidence: 0.8183757

 $00{:}29{:}00{.}480 \dashrightarrow 00{:}29{:}03{.}416$ in addition to five responders who had a

NOTE Confidence: 0.8183757

 $00{:}29{:}03.416 \dashrightarrow 00{:}29{:}06.406$ response to both cada mean and mad as lamb.

NOTE Confidence: 0.8183757

 $00:29:06.410 \longrightarrow 00:29:07.460$ In these studies,

NOTE Confidence: 0.8183757

 $00:29:07.460 \longrightarrow 00:29:08.860$ you're considered a responder.

NOTE Confidence: 0.8183757

 $00:29:08.860 \longrightarrow 00:29:11.740$ If your depression score.

NOTE Confidence: 0.8183757

00:29:11.740 --> 00:29:13.710 Decreases by more than 50%

NOTE Confidence: 0.8183757

 $00:29:13.710 \longrightarrow 00:29:15.670$ within the first three days,

NOTE Confidence: 0.8183757

00:29:15.670 - 00:29:17.620 so you can see significantly

NOTE Confidence: 0.8183757

00:29:17.620 --> 00:29:19.180 more Academy in responders

NOTE Confidence: 0.8183757

 $00{:}29{:}19.180 \dashrightarrow 00{:}29{:}21.129$ than medazzal and responders.

NOTE Confidence: 0.8183757

 $00:29:21.130 \longrightarrow 00:29:23.140$ This is another way of looking

NOTE Confidence: 0.8183757

 $00{:}29{:}23.140 \dashrightarrow 00{:}29{:}24.480$ at the same data,

NOTE Confidence: 0.8183757

 $00:29:24.480 \longrightarrow 00:29:26.065$ so again eight people that

- NOTE Confidence: 0.8183757
- $00{:}29{:}26.065 \dashrightarrow 00{:}29{:}28.076$ responded to cada mean that did

 $00{:}29{:}28.076 \dashrightarrow 00{:}29{:}29.871$ not respond to midazolam versus

NOTE Confidence: 0.8183757

 $00{:}29{:}29{.}871 \dashrightarrow 00{:}29{:}31.670$ one person that responded to

NOTE Confidence: 0.8183757

 $00:29:31.670 \longrightarrow 00:29:33.190$ midazolam and not cada mean.

NOTE Confidence: 0.85616153

 $00:29:37.030 \longrightarrow 00:29:38.800$ This is the time course,

NOTE Confidence: 0.85616153

 $00{:}29{:}38{.}800 \dashrightarrow 00{:}29{:}41{.}864$ so this is looking at the Madras score

NOTE Confidence: 0.85616153

 $00:29:41.864 \longrightarrow 00:29:44.438$ overtime all the way out to 14 days,

NOTE Confidence: 0.85616153

 $00:29:44.440 \longrightarrow 00:29:46.953$ which is the longest time period that

NOTE Confidence: 0.85616153

 $00{:}29{:}46{.}953 \dashrightarrow 00{:}29{:}49{.}515$ we examined in this short term efficacy

NOTE Confidence: 0.85616153

 $00{:}29{:}49{.}515 \dashrightarrow 00{:}29{:}52{.}365$ study and you can see that again you

NOTE Confidence: 0.85616153

 $00{:}29{:}52{.}365 \dashrightarrow 00{:}29{:}54{.}675$ can see the day one finding here,

NOTE Confidence: 0.85616153

00:29:54.680 --> 00:29:57.768 but you can see that the groups remain

NOTE Confidence: 0.85616153

 $00:29:57.768 \longrightarrow 00:30:00.330$ separated all the way out to 14 days,

NOTE Confidence: 0.85616153

 $00{:}30{:}00{.}330 \dashrightarrow 00{:}30{:}01{.}738$ so encouraging finding after

NOTE Confidence: 0.85616153

 $00:30:01.738 \rightarrow 00:30:02.794$ a single infusion.

00:30:05.240 --> 00:30:07.816 I added some unpublished data here about

NOTE Confidence: 0.8599357

 $00{:}30{:}07{.}816 \dashrightarrow 00{:}30{:}10{.}744$ a subset of our participants that took

NOTE Confidence: 0.8599357

00:30:10.744 --> 00:30:13.372 an implicit association task I have

NOTE Confidence: 0.8599357

 $00:30:13.452 \longrightarrow 00:30:16.164$ in the title of the talk were talking

NOTE Confidence: 0.8599357

 $00{:}30{:}16.164 \dashrightarrow 00{:}30{:}18.475$ about anti suicide responses as well and

NOTE Confidence: 0.8599357

 $00{:}30{:}18.475 \dashrightarrow 00{:}30{:}21.490$ as you saw in the inclusion criteria,

NOTE Confidence: 0.8599357

 $00:30:21.490 \longrightarrow 00:30:23.812$ we really didn't have a lot

NOTE Confidence: 0.8599357

00:30:23.812 --> 00:30:24.973 of explicit suicidality,

NOTE Confidence: 0.8599357

00:30:24.980 --> 00:30:27.044 but we did use implicit association

NOTE Confidence: 0.8599357

 $00{:}30{:}27.044 \dashrightarrow 00{:}30{:}29.617$ task to look at both depression

NOTE Confidence: 0.8599357

 $00{:}30{:}29.617 \dashrightarrow 00{:}30{:}31.865$ and suicide associated cognitions.

NOTE Confidence: 0.8599357

 $00{:}30{:}31{.}870 \dashrightarrow 00{:}30{:}33{.}868$ For those of you that aren't

NOTE Confidence: 0.8599357

 $00{:}30{:}33{.}868 \dashrightarrow 00{:}30{:}35{.}200$ familiar with the 80,

NOTE Confidence: 0.8599357

 $00{:}30{:}35{.}200 \dashrightarrow 00{:}30{:}37{.}447$ this is a test that measures reaction

NOTE Confidence: 0.8599357

 $00{:}30{:}37{.}447 \dashrightarrow 00{:}30{:}39{.}534$ time to assess how quickly a

NOTE Confidence: 0.8599357

 $00:30:39.534 \rightarrow 00:30:41.646$ participant can sort words or pictures

- NOTE Confidence: 0.8599357
- $00:30:41.646 \longrightarrow 00:30:43.860$ that flash in front of the screen.

 $00{:}30{:}43.860 \dashrightarrow 00{:}30{:}45.188$ So pairing words together.

NOTE Confidence: 0.8599357

 $00:30:45.188 \longrightarrow 00:30:46.516$ So in this example,

NOTE Confidence: 0.8599357

 $00:30:46.520 \rightarrow 00:30:49.517$ pairing me with happy versus not me and sad,

NOTE Confidence: 0.8599357

 $00:30:49.520 \longrightarrow 00:30:51.398$ and the sorting speed reflects how

NOTE Confidence: 0.8599357

 $00:30:51.398 \rightarrow 00:30:53.180$ tightly we associate two concepts.

NOTE Confidence: 0.8599357

 $00:30:53.180 \longrightarrow 00:30:55.266$ So if we already really tightly linked

NOTE Confidence: 0.8599357

 $00{:}30{:}55{.}266 \dashrightarrow 00{:}30{:}57{.}839$ the idea of ourselves with being happy,

NOTE Confidence: 0.8599357

 $00:30:57.840 \longrightarrow 00:30:58.590$ people are,

NOTE Confidence: 0.8599357

 $00:30:58.590 \rightarrow 00:31:01.215$ reaction time would be quicker for that

NOTE Confidence: 0.8599357

 $00:31:01.215 \rightarrow 00:31:03.867$ than the association of self with sad.

NOTE Confidence: 0.8599357

 $00{:}31{:}03{.}870 \dashrightarrow 00{:}31{:}06{.}430$ So quicker sorting indicates

NOTE Confidence: 0.8599357

 $00:31:06.430 \longrightarrow 00:31:08.350$ a stronger association.

NOTE Confidence: 0.8599357

 $00{:}31{:}08{.}350 \dashrightarrow 00{:}31{:}10{.}898$ And this is just a subset again

NOTE Confidence: 0.8599357

 $00:31:10.898 \longrightarrow 00:31:11.990$ of our participants.

 $00:31:11.990 \rightarrow 00:31:15.266$ So sort of a preliminary data kind of figure.

NOTE Confidence: 0.8599357

 $00{:}31{:}15{.}270 \dashrightarrow 00{:}31{:}17{.}806$ We did four different high 80s and you

NOTE Confidence: 0.8599357

 $00:31:17.806 \longrightarrow 00:31:20.441$ can see that there is really little

NOTE Confidence: 0.8599357

 $00:31:20.441 \rightarrow 00:31:23.270$ difference for the self harm and anxiety.

NOTE Confidence: 0.8599357

 $00:31:23.270 \longrightarrow 00:31:25.606$ I 80s but we see some nice separation

NOTE Confidence: 0.8599357

 $00:31:25.606 \dashrightarrow 00:31:27.146$ that just escapes conventional

NOTE Confidence: 0.8599357

 $00{:}31{:}27.146 \dashrightarrow 00{:}31{:}29.798$ significance here for both the Depression

NOTE Confidence: 0.8599357

00:31:29.798 --> 00:31:32.369 I-80 but also for the suicide I-80,

NOTE Confidence: 0.8599357

 $00{:}31{:}32{.}370 \dashrightarrow 00{:}31{:}34{.}918$ which is sort of an intriguing finding.

NOTE Confidence: 0.8599357

00:31:34.920 --> 00:31:35.630 You know,

NOTE Confidence: 0.8599357

 $00{:}31{:}35{.}630 \dashrightarrow 00{:}31{:}38{.}930$ given our questions at the top of the talk.

NOTE Confidence: 0.82176346

 $00:31:41.250 \rightarrow 00:31:43.236$ I'll talk briefly about side effects.

NOTE Confidence: 0.82176346

 $00:31:43.240 \longrightarrow 00:31:44.890$ It's nice when things work,

NOTE Confidence: 0.82176346

 $00:31:44.890 \longrightarrow 00:31:46.752$ but we want to know that they

NOTE Confidence: 0.82176346

00:31:46.752 --> 00:31:48.860 work at a tolerable Safeway,

NOTE Confidence: 0.82176346

 $00:31:48.860 \longrightarrow 00:31:50.846$ so this is looking at intra

- NOTE Confidence: 0.82176346
- $00:31:50.846 \longrightarrow 00:31:52.170$ infusion dissociative side effects.

 $00:31:52.170 \longrightarrow 00:31:54.898$ We use the cads.

NOTE Confidence: 0.82176346

 $00:31:54.900 \longrightarrow 00:31:56.765$ This figure, an alternate title

NOTE Confidence: 0.82176346

 $00{:}31{:}56.765 \dashrightarrow 00{:}31{:}59.350$ would be medazzal and is not a great

NOTE Confidence: 0.82176346

 $00:31:59.350 \longrightarrow 00:32:00.990$ control for cada mean studies

NOTE Confidence: 0.82176346

 $00:32:00.990 \longrightarrow 00:32:03.638$ 'cause you can see that there's a

NOTE Confidence: 0.82176346

 $00{:}32{:}03{.}638 \dashrightarrow 00{:}32{:}05{.}230$ significant difference between cada

NOTE Confidence: 0.82176346

 $00:32:05.230 \longrightarrow 00:32:07.885$ mean and midazolam in terms of side

NOTE Confidence: 0.82176346

 $00:32:07.885 \dashrightarrow 00:32:09.369$ effects associated side effects.

NOTE Confidence: 0.82176346

 $00:32:09.370 \dashrightarrow 00:32:11.932$ I think the other important pieces

NOTE Confidence: 0.82176346

 $00{:}32{:}11{.}932 \dashrightarrow 00{:}32{:}14{.}143$ that these dissipate really quickly

NOTE Confidence: 0.82176346

 $00{:}32{:}14{.}143 \dashrightarrow 00{:}32{:}16{.}747$ and no one had any persistent

NOTE Confidence: 0.82176346

 $00{:}32{:}16.747 \dashrightarrow 00{:}32{:}18.600$ dissociative reactions or states.

NOTE Confidence: 0.82176346

00:32:18.600 --> 00:32:20.714 I think this is kind of an

NOTE Confidence: 0.82176346

 $00{:}32{:}20.714 \dashrightarrow 00{:}32{:}22.365$ interesting slide because it lists

 $00:32:22.365 \rightarrow 00:32:24.075$ the most prominent intra infusion

NOTE Confidence: 0.82176346

 $00:32:24.075 \rightarrow 00:32:26.040$ side effects for both compounds,

NOTE Confidence: 0.82176346

 $00{:}32{:}26.040 \dashrightarrow 00{:}32{:}28.050$ so these are individual items that

NOTE Confidence: 0.82176346

 $00{:}32{:}28.050 \dashrightarrow 00{:}32{:}30.428$ are pulled out of the cads scale,

NOTE Confidence: 0.82176346

 $00{:}32{:}30{.}430 \dashrightarrow 00{:}32{:}32{.}712$ and then I highlighted ones that were

NOTE Confidence: 0.82176346

 $00{:}32{:}32{.}712 \dashrightarrow 00{:}32{:}34{.}819$ similar between cada mean and midazolam.

NOTE Confidence: 0.82176346

 $00{:}32{:}34{.}820 \dashrightarrow 00{:}32{:}36{.}710$ So you can see feeling like you're

NOTE Confidence: 0.82176346

 $00:32:36.710 \longrightarrow 00:32:38.783$ spaced out is something that people

NOTE Confidence: 0.82176346

00:32:38.783 --> 00:32:40.783 experience on both feeling disconnected

NOTE Confidence: 0.82176346

00:32:40.783 --> 00:32:42.970 from your body is also something

NOTE Confidence: 0.82176346

 $00:32:42.970 \longrightarrow 00:32:44.630$ that it's experienced in both,

NOTE Confidence: 0.82176346

 $00:32:44.630 \rightarrow 00:32:46.989$ although more in the Academy in Group.

NOTE Confidence: 0.82176346

 $00:32:46.990 \rightarrow 00:32:49.405$ But then you can see some things

NOTE Confidence: 0.82176346

 $00:32:49.405 \longrightarrow 00:32:50.840$ are distinctly cada mean.

NOTE Confidence: 0.82176346

00:32:50.840 --> 00:32:53.157 So, feeling like you're in a dream,

NOTE Confidence: 0.82176346

 $00:32:53.160 \rightarrow 00:32:54.810$ most participants have that experience,

 $00:32:54.810 \rightarrow 00:32:56.976$ and that's really not an experience

NOTE Confidence: 0.82176346

 $00{:}32{:}56{.}976 \dashrightarrow 00{:}32{:}59{.}119$ that people have made as a lamb.

NOTE Confidence: 0.86410964

00:33:01.820 --> 00:33:03.610 This is looking at intra

NOTE Confidence: 0.86410964

00:33:03.610 -> 00:33:04.684 infusion hemodynamic changes,

NOTE Confidence: 0.86410964

 $00:33:04.690 \longrightarrow 00:33:06.930$ so if you remember back at the

NOTE Confidence: 0.86410964

 $00{:}33{:}06{.}930 \dashrightarrow 00{:}33{:}09{.}145$ beginning we know that ketamin can

NOTE Confidence: 0.86410964

 $00{:}33{:}09{.}145 \dashrightarrow 00{:}33{:}11{.}503$ raise blood pressure and heart rate.

NOTE Confidence: 0.86410964

 $00:33:11.510 \longrightarrow 00:33:14.030$ So we see what we expect here.

NOTE Confidence: 0.86410964

 $00:33:14.030 \rightarrow 00:33:16.536$ So this is looking at blood pressures,

NOTE Confidence: 0.86410964

 $00{:}33{:}16{.}540 \dashrightarrow 00{:}33{:}18{.}730$ minutes, post infusion so you can

NOTE Confidence: 0.86410964

00:33:18.730 --> 00:33:20.948 see there's a significant increase in

NOTE Confidence: 0.86410964

 $00{:}33{:}20{.}948 \dashrightarrow 00{:}33{:}23{.}356$ blood pressure in the CADA mean group,

NOTE Confidence: 0.86410964

 $00{:}33{:}23{.}360 \dashrightarrow 00{:}33{:}25{.}160$ but that returns to normal.

NOTE Confidence: 0.86410964

 $00{:}33{:}25.160 \dashrightarrow 00{:}33{:}27.134$ We see a similar finding here

NOTE Confidence: 0.86410964

 $00{:}33{:}27{.}134 \dashrightarrow 00{:}33{:}28{.}880$ with heart rate for participants

 $00:33:28.880 \longrightarrow 00:33:31.414$ out of our 17 had blood pressure

NOTE Confidence: 0.86410964

 $00{:}33{:}31{.}414 \dashrightarrow 00{:}33{:}33{.}704$ that met criteria for stage two

NOTE Confidence: 0.86410964

 $00:33:33.704 \longrightarrow 00:33:35.974$ hypertension which is 140 / 90.

NOTE Confidence: 0.86410964

 $00:33:35.974 \rightarrow 00:33:37.994$ But none persisted past the

NOTE Confidence: 0.86410964

 $00:33:37.994 \longrightarrow 00:33:39.610$ end of the infusion,

NOTE Confidence: 0.86410964

00:33:39.610 --> 00:33:43.221 an none exceeded 150 / 95 or values NOTE Confidence: 0.86410964

 $00:33:43.221 \dashrightarrow 00:33:46.743$ that would get us very concerned.

NOTE Confidence: 0.86410964

00:33:46.750 --> 00:33:48.282 I'm talking about pharmacokinetics.

NOTE Confidence: 0.86410964

00:33:48.282 --> 00:33:51.244 I think I'm going to skip this slide

NOTE Confidence: 0.86410964

00:33:51.244 --> 00:33:54.077 just in the interest of time and just go NOTE Confidence: 0.86410964

 $00:33:54.077 \rightarrow 00:33:56.225$ right to the single dose conclusions.

NOTE Confidence: 0.86410964

 $00{:}33{:}56{.}230 \dashrightarrow 00{:}33{:}58{.}258$ So the conclusions from this study

NOTE Confidence: 0.86410964

 $00{:}33{:}58{.}258 \dashrightarrow 00{:}34{:}00{.}397$ where the CADA mean was well

NOTE Confidence: 0.86410964

 $00{:}34{:}00{.}397 \dashrightarrow 00{:}34{:}02{.}187$ tolerated in this small sample.

NOTE Confidence: 0.7727775

 $00{:}34{:}04{.}590 \dashrightarrow 00{:}34{:}07{.}050$ Really, that cada mean significantly

NOTE Confidence: 0.7727775

 $00:34:07.050 \longrightarrow 00:34:09.510$ improved depression symptoms at one

 $00:34:09.585 \rightarrow 00:34:12.129$ day post infusion as measured by

NOTE Confidence: 0.7727775

 $00{:}34{:}12.129 \dashrightarrow 00{:}34{:}14.170$ mattress and adolescents with TRD.

NOTE Confidence: 0.7727775

00:34:14.170 --> 00:34:16.200 We really didn't have information to share NOTE Confidence: 0.7727775

00:34:16.200 --> 00:34:17.960 here about explicit suicidal thinking,

NOTE Confidence: 0.7727775

 $00{:}34{:}17.960 \dashrightarrow 00{:}34{:}22.510$ as that was really a rule out in this study.

NOTE Confidence: 0.7727775

 $00{:}34{:}22{.}510 \dashrightarrow 00{:}34{:}25{.}579$ So I gave you a teaser with the IAT,

NOTE Confidence: 0.7727775

 $00{:}34{:}25{.}580 \dashrightarrow 00{:}34{:}27{.}996$ but really there needs to be a separate

NOTE Confidence: 0.7727775

 $00:34:27.996 \rightarrow 00:34:30.347$ study that's looking at suicidal thinking.

NOTE Confidence: 0.7727775

 $00{:}34{:}30{.}350 \dashrightarrow 00{:}34{:}32{.}065$ So this preliminary data suggests

NOTE Confidence: 0.7727775

00:34:32.065 - 00:34:34.500 that cada mean may be safe and

NOTE Confidence: 0.7727775

 $00:34:34.500 \longrightarrow 00:34:36.145$ effective in the short term.

NOTE Confidence: 0.7727775

 $00{:}34{:}36{.}150 \dashrightarrow 00{:}34{:}39{.}030$ But as we followed some of these participants

NOTE Confidence: 0.7727775

 $00:34:39.030 \longrightarrow 00:34:40.919$ informally after the trial was over,

NOTE Confidence: 0.7727775

 $00:34:40.920 \longrightarrow 00:34:42.985$ most people relapsed and that

NOTE Confidence: 0.7727775

 $00{:}34{:}42.985 \dashrightarrow 00{:}34{:}45.479$ is consistent with what we see

 $00:34:45.479 \longrightarrow 00:34:47.908$ in adults that the effects of a

NOTE Confidence: 0.7727775

 $00:34:47.908 \dashrightarrow 00:34:50.229$ single dose are really ephemeral.

NOTE Confidence: 0.7727775

 $00:34:50.230 \longrightarrow 00:34:51.952$ So the big conclusion is that

NOTE Confidence: 0.7727775

 $00{:}34{:}51{.}952 \dashrightarrow 00{:}34{:}53{.}100$ more research is needed.

NOTE Confidence: 0.7727775

 $00{:}34{:}53.100 \dashrightarrow 00{:}34{:}55.011$ You know this is exciting that we

NOTE Confidence: 0.7727775

 $00{:}34{:}55{.}011$ --> $00{:}34{:}57{.}120$ have a positive finding in this study,

NOTE Confidence: 0.7727775

 $00{:}34{:}57{.}120 \dashrightarrow 00{:}34{:}58{.}933$ but I think the real conclusion is

NOTE Confidence: 0.7727775

 $00{:}34{:}58{.}933 \dashrightarrow 00{:}35{:}01{.}314$ that we need more data as the gaps

NOTE Confidence: 0.7727775

00:35:01.314 --> 00:35:02.859 in our knowledge are considerable,

NOTE Confidence: 0.7727775

 $00{:}35{:}02{.}860 \dashrightarrow 00{:}35{:}04{.}673$ and so that's what I'm going to

NOTE Confidence: 0.7727775

 $00{:}35{:}04.673 \dashrightarrow 00{:}35{:}06.300$ spend the time talking about.

NOTE Confidence: 0.7727775

 $00:35:06.300 \dashrightarrow 00:35:08.668$ Now I'm going to talk about four different NOTE Confidence: 0.7727775

 $00{:}35{:}08.668 \dashrightarrow 00{:}35{:}10.845$ areas that sort of keep me up at night

NOTE Confidence: 0.7727775

00:35:10.845 --> 00:35:12.895 in terms of gaps in understanding and

NOTE Confidence: 0.7727775

 $00:35:12.895 \rightarrow 00:35:14.905$ then maybe in the question period.

NOTE Confidence: 0.7727775

 $00:35:14.910 \longrightarrow 00:35:16.602$ Folks have other ideas about important

 $00:35:16.602 \rightarrow 00:35:18.640$ areas that we should be thinking about,

NOTE Confidence: 0.7727775

 $00{:}35{:}18.640 \dashrightarrow 00{:}35{:}20.719$ but I think the first one is

NOTE Confidence: 0.7727775

 $00:35:20.719 \longrightarrow 00:35:21.610$ really extending Caribbeans.

NOTE Confidence: 0.7727775

 $00:35:21.610 \dashrightarrow 00:35:23.836$ Antidepressant efficacy and one way to

NOTE Confidence: 0.7727775

 $00:35:23.836 \dashrightarrow 00:35:27.250$ do that is to think about repeat dosing,

NOTE Confidence: 0.7727775

 $00{:}35{:}27{.}250 \dashrightarrow 00{:}35{:}30{.}458$ so this is a paper from an adult

NOTE Confidence: 0.7727775

 $00:35:30.458 \longrightarrow 00:35:32.089$ sample back in 2016.

NOTE Confidence: 0.7727775

 $00:35:32.090 \rightarrow 00:35:34.813$ This is showing that twice weekly dosing

NOTE Confidence: 0.7727775

 $00{:}35{:}34{.}813 \dashrightarrow 00{:}35{:}36{.}877$ over three weeks yields remissions

NOTE Confidence: 0.7727775

 $00:35:36.877 \rightarrow 00:35:39.747$ that last an average of three weeks,

NOTE Confidence: 0.7727775

 $00{:}35{:}39{.}750 \dashrightarrow 00{:}35{:}43{.}103$ so a better response after getting 6

NOTE Confidence: 0.7727775

 $00{:}35{:}43.103 \dashrightarrow 00{:}35{:}46.038$ infusions versus getting a single infusion.

NOTE Confidence: 0.7727775

 $00{:}35{:}46{.}040 \dashrightarrow 00{:}35{:}48{.}574$ The caveat is that the range of

NOTE Confidence: 0.7727775

00:35:48.574 --> 00:35:50.350 durability was really variable,

NOTE Confidence: 0.7727775

 $00:35:50.350 \dashrightarrow 00:35:54.886$ so some folks relapsed in six days some.

 $00:35:54.890 \rightarrow 00:35:58.257$ Folks made it longer than three months.

NOTE Confidence: 0.7727775

 $00{:}35{:}58{.}260 \dashrightarrow 00{:}36{:}00{.}380$ And the individual factors that

NOTE Confidence: 0.7727775

 $00{:}36{:}00{.}380 \dashrightarrow 00{:}36{:}02{.}500$ paration are not well understood.

NOTE Confidence: 0.7727775

 $00{:}36{:}02{.}500 \dashrightarrow 00{:}36{:}05{.}468$ We have a little bit of experience

NOTE Confidence: 0.7727775

 $00{:}36{:}05{.}468 \dashrightarrow 00{:}36{:}06{.}740$ with repeat dosing.

NOTE Confidence: 0.7727775

 $00{:}36{:}06{.}740 \dashrightarrow 00{:}36{:}10{.}068$ This is from a case report that we

NOTE Confidence: 0.7727775

00:36:10.068 - 00:36:12.680 published in Jacob back in 2017.

NOTE Confidence: 0.7727775

 $00:36:12.680 \longrightarrow 00:36:14.800$ This was an individual case,

NOTE Confidence: 0.7727775

 $00{:}36{:}14.800 \dashrightarrow 00{:}36{:}19.040$ a 16 year old boy with a history of ADHD,

NOTE Confidence: 0.7727775

 $00{:}36{:}19{.}040 \dashrightarrow 00{:}36{:}20{.}732$ depression and Crohn's disease.

NOTE Confidence: 0.7727775

 $00{:}36{:}20.732 \dashrightarrow 00{:}36{:}22.847$ Three prior serious suicide attempts,

NOTE Confidence: 0.7727775

00:36:22.850 --> 00:36:24.970 multiple failed treatments considered, ECT.

NOTE Confidence: 0.7727775

 $00:36:24.970 \dashrightarrow 00:36:29.130$ But ended up going with Academy in trial.

NOTE Confidence: 0.7727775

00:36:29.130 --> 00:36:31.713 Like many of you folks have seen

NOTE Confidence: 0.7727775

 $00{:}36{:}31{.}713 \dashrightarrow 00{:}36{:}32{.}820$ this data before,

NOTE Confidence: 0.7727775

 $00:36:32.820 \longrightarrow 00:36:34.660$ but this is looking at

- NOTE Confidence: 0.7727775
- $00:36:34.660 \longrightarrow 00:36:35.764$ his individual mattress.

 $00:36:35.770 \longrightarrow 00:36:37.250$ So depression and SSI,

NOTE Confidence: 0.7727775

 $00{:}36{:}37{.}250 \dashrightarrow 00{:}36{:}39{.}100$ so suicidal ideations scores and

NOTE Confidence: 0.7727775

 $00:36:39.100 \longrightarrow 00:36:41.390$ the arrows are showing the cada

NOTE Confidence: 0.7727775

 $00{:}36{:}41{.}390 \dashrightarrow 00{:}36{:}43{.}240$ mean infusions that he received

NOTE Confidence: 0.7727775

 $00{:}36{:}43{.}310 \dashrightarrow 00{:}36{:}44{.}630$ in this acute series.

NOTE Confidence: 0.7727775

 $00:36:44.630 \longrightarrow 00:36:46.682$ You can see reduction in these

NOTE Confidence: 0.7727775

 $00:36:46.682 \rightarrow 00:36:48.690$ symptoms with the first infusion,

NOTE Confidence: 0.7727775

 $00:36:48.690 \longrightarrow 00:36:51.511$ but a further and more significant reduction

NOTE Confidence: 0.7727775

 $00{:}36{:}51{.}511 \dashrightarrow 00{:}36{:}54{.}082$ following with a repeat Series A lot

NOTE Confidence: 0.7727775

00:36:54.082 --> 00:36:57.368 of times folks will say, well, what's this?

NOTE Confidence: 0.7727775

 $00:36:57.368 \longrightarrow 00:37:00.148$ This blip in the middle?

NOTE Confidence: 0.7727775

 $00{:}37{:}00{.}150 \dashrightarrow 00{:}37{:}03{.}104$ Was the day that his insurance company

NOTE Confidence: 0.7727775

 $00{:}37{:}03.104 \dashrightarrow 00{:}37{:}06.108$ denied the potential plan and I think

NOTE Confidence: 0.7727775

 $00:37:06.108 \rightarrow 00:37:08.183$ everybody's Madras scores might have

 $00:37:08.183 \dashrightarrow 00:37:10.724$ gone up that day and I think it's

NOTE Confidence: 0.7727775

 $00:37:10.724 \longrightarrow 00:37:12.782$ a good point to remember is that

NOTE Confidence: 0.7727775

 $00{:}37{:}12.782 \dashrightarrow 00{:}37{:}14.540$ these are treatments that do not

NOTE Confidence: 0.8297204

00:37:14.599 --> 00:37:16.543 immunize you against disappointment

NOTE Confidence: 0.8297204

 $00:37:16.543 \rightarrow 00:37:18.487$ with disappointing things happen,

NOTE Confidence: 0.8297204

 $00{:}37{:}18{.}490 \dashrightarrow 00{:}37{:}21{.}605$ but this was a patient that got

NOTE Confidence: 0.8297204

 $00:37:21.605 \dashrightarrow 00:37:23.750$ substantially better on a repeat.

NOTE Confidence: 0.8297204

00:37:23.750 --> 00:37:25.082 Don't say paradigm.

NOTE Confidence: 0.8297204

 $00:37:25.082 \longrightarrow 00:37:26.858$ What gives us pause?

NOTE Confidence: 0.8297204

00:37:26.860 - 00:37:29.524 Why don't we just give repeat

NOTE Confidence: 0.8297204

 $00:37:29.524 \rightarrow 00:37:31.300$ dosing to everybody man?

NOTE Confidence: 0.8297204

00:37:31.300 --> 00:37:34.198 So I'll tell you about the things

NOTE Confidence: 0.8297204

 $00{:}37{:}34{.}198 \dashrightarrow 00{:}37{:}37{.}070$ that give us pause about that.

NOTE Confidence: 0.8297204

 $00{:}37{:}37{.}070 \dashrightarrow 00{:}37{:}39{.}947$ And these are data that come from

NOTE Confidence: 0.8297204

00:37:39.947 --> 00:37:43.140 studies in humans of people that have

NOTE Confidence: 0.8297204

 $00:37:43.140 \rightarrow 00:37:45.948$ used lots of cada mean recreationally.

- NOTE Confidence: 0.8297204
- $00{:}37{:}45{.}950 \dashrightarrow 00{:}37{:}48{.}614$ Or have ketamine use disorder and

 $00:37:48.614 \rightarrow 00:37:50.390$ we see neurocognitive effects,

NOTE Confidence: 0.8297204

 $00:37:50.390 \longrightarrow 00:37:51.746$ so memory problems,

NOTE Confidence: 0.8297204

00:37:51.746 --> 00:37:54.458 attention problems and then also urological.

NOTE Confidence: 0.8297204

 $00{:}37{:}54.460 \dashrightarrow 00{:}37{:}54.887$ Problems,

NOTE Confidence: 0.8297204

 $00{:}37{:}54.887 \dashrightarrow 00{:}37{:}57.449$ so there is bladder damage and

NOTE Confidence: 0.8297204

 $00{:}37{:}57{.}449 \dashrightarrow 00{:}38{:}00{.}021$ this sort of persistent cystitis

NOTE Confidence: 0.8297204

 $00:38:00.021 \longrightarrow 00:38:02.437$ that people present with.

NOTE Confidence: 0.8297204

 $00{:}38{:}02{.}440 \dashrightarrow 00{:}38{:}04{.}852$ So those are concerning and then

NOTE Confidence: 0.8297204

 $00{:}38{:}04{.}852 \dashrightarrow 00{:}38{:}07{.}169$ animal studies also give us pause,

NOTE Confidence: 0.8297204

 $00{:}38{:}07{.}170 \dashrightarrow 00{:}38{:}08{.}742$ particularly in thinking about

NOTE Confidence: 0.8297204

 $00{:}38{:}08{.}742 \dashrightarrow 00{:}38{:}09{.}528$ developmental populations.

NOTE Confidence: 0.8297204

 $00{:}38{:}09{.}530 \dashrightarrow 00{:}38{:}11.678$ So animal studies that use chronic

NOTE Confidence: 0.8297204

00:38:11.678 --> 00:38:14.004 dosing at young animals show damage

NOTE Confidence: 0.8297204

 $00:38:14.004 \longrightarrow 00:38:16.074$ to areas like the developing

 $00:38:16.074 \rightarrow 00:38:17.810$ hippocampus and prefrontal cortex.

NOTE Confidence: 0.8297204

 $00{:}38{:}17{.}810 \dashrightarrow 00{:}38{:}19{.}374$ Those are important areas,

NOTE Confidence: 0.8297204

 $00{:}38{:}19{.}374 \dashrightarrow 00{:}38{:}22{.}167$ and so things like cell death and

NOTE Confidence: 0.8297204

 $00:38:22.167 \rightarrow 00:38:24.387$ white matter changes and their real

NOTE Confidence: 0.8297204

 $00{:}38{:}24{.}387 \dashrightarrow 00{:}38{:}27{.}193$ issue is that the toxicity threshold of

NOTE Confidence: 0.8297204

 $00:38:27.193 \dashrightarrow 00:38:30.042$ repeat cada mean exposure is not known.

NOTE Confidence: 0.8297204

 $00{:}38{:}30{.}042 \dashrightarrow 00{:}38{:}34{.}310$ So we know that there is a dose that's safe.

NOTE Confidence: 0.8297204

 $00:38:34.310 \rightarrow 00:38:36.356$ This is given an esthesia all the

NOTE Confidence: 0.8297204

00:38:36.356 --> 00:38:38.520 time and people you know don't

NOTE Confidence: 0.8297204

 $00:38:38.520 \longrightarrow 00:38:40.345$ really think twice about it.

NOTE Confidence: 0.8297204

 $00{:}38{:}40{.}350 \dashrightarrow 00{:}38{:}42{.}838$ But we know there's a dose out there

NOTE Confidence: 0.8297204

 $00{:}38{:}42{.}838 \dashrightarrow 00{:}38{:}45{.}867$ that's too much and there's not a great

NOTE Confidence: 0.8297204

 $00{:}38{:}45{.}867 \dashrightarrow 00{:}38{:}48{.}160$ understanding in Pediatrics or in adults.

NOTE Confidence: 0.8297204

 $00:38:48.160 \dashrightarrow 00:38:51.268$ Really, what that dose threshold is.

NOTE Confidence: 0.8297204

 $00:38:51.270 \longrightarrow 00:38:52.638$ So that's one piece,

NOTE Confidence: 0.8297204

 $00:38:52.638 \longrightarrow 00:38:54.006$ a second related gap.

- NOTE Confidence: 0.8297204
- $00:38:54.010 \rightarrow 00:38:55.978$ In understanding that I think about

 $00:38:55.978 \longrightarrow 00:38:59.103$ a lot is what do you do after an

NOTE Confidence: 0.8297204

 $00:38:59.103 \rightarrow 00:39:00.843$ acute cada mean treatment series?

NOTE Confidence: 0.8297204

 $00:39:00.850 \longrightarrow 00:39:03.900$ So if we do kind of a similar paradigm to

NOTE Confidence: 0.8297204

 $00:39:03.983 \rightarrow 00:39:07.340$ what we saw in the case report for infusions,

NOTE Confidence: 0.8297204

 $00:39:07.340 \dashrightarrow 00:39:10.076$ or six infusions over a couple of weeks,

NOTE Confidence: 0.8297204

 $00:39:10.080 \longrightarrow 00:39:10.762$ what's next?

NOTE Confidence: 0.8297204

 $00:39:10.762 \longrightarrow 00:39:12.126$ What's the game plan?

NOTE Confidence: 0.8297204

 $00{:}39{:}12.130 \dashrightarrow 00{:}39{:}14.682$ And so one route that people have taken

NOTE Confidence: 0.8297204

00:39:14.682 - > 00:39:17.600 is to continue cada mean in some way,

NOTE Confidence: 0.8297204

00:39:17.600 --> 00:39:18.692 so maintenance infusions,

NOTE Confidence: 0.8297204

 $00:39:18.692 \rightarrow 00:39:21.809$ although the idea of how many an at what?

NOTE Confidence: 0.8297204

 $00:39:21.810 \longrightarrow 00:39:24.685$ Intervals those things are really

NOTE Confidence: 0.8297204

 $00:39:24.685 \rightarrow 00:39:28.760$ not worked out very well yet at all.

NOTE Confidence: 0.8297204

 $00:39:28.760 \longrightarrow 00:39:30.316$ So a second strategy,

 $00:39:30.316 \rightarrow 00:39:34.349$ and one that I'm sort of more partial to is,

NOTE Confidence: 0.8297204

 $00{:}39{:}34{.}350 \dashrightarrow 00{:}39{:}37{.}017$ can we harness the period of Wellness

NOTE Confidence: 0.8297204

 $00{:}39{:}37{.}017 \dashrightarrow 00{:}39{:}39{.}702$ and people that respond to cada

NOTE Confidence: 0.8297204

00:39:39.702 --> 00:39:42.147 mean by using more traditional

NOTE Confidence: 0.8297204

 $00:39:42.147 \longrightarrow 00:39:43.990$ psychiatric treatment approaches?

NOTE Confidence: 0.8297204

00:39:43.990 --> 00:39:46.552 I bring back another busy cartoon just

NOTE Confidence: 0.8297204

 $00:39:46.552 \dashrightarrow 00:39:49.696$ to remind you that there is this idea

NOTE Confidence: 0.8297204

 $00:39:49.696 \rightarrow 00:39:52.520$ that cada mean enhances synaptic plasticity.

NOTE Confidence: 0.8297204

 $00{:}39{:}52{.}520 \dashrightarrow 00{:}39{:}54{.}830$ Synaptic plasticity is very important

NOTE Confidence: 0.8297204

 $00{:}39{:}54{.}830 \dashrightarrow 00{:}39{:}57{.}884$ for things like learning and so folks

NOTE Confidence: 0.8297204

 $00:39:57.884 \dashrightarrow 00:40:00.222$ have started to ask is there this?

NOTE Confidence: 0.8297204

 $00{:}40{:}00{.}230 \dashrightarrow 00{:}40{:}03{.}198$ Is there a period of ketamin induced

NOTE Confidence: 0.8297204

 $00{:}40{:}03.198 \dashrightarrow 00{:}40{:}04.947$ enhanced synaptic plasticity that

NOTE Confidence: 0.8297204

 $00{:}40{:}04{.}947 \dashrightarrow 00{:}40{:}07{.}002$ would make things like psychotherapy

NOTE Confidence: 0.8297204

 $00{:}40{:}07{.}002 \dashrightarrow 00{:}40{:}09{.}065$ more impactful and so there's

NOTE Confidence: 0.8297204

 $00:40:09.065 \rightarrow 00:40:11.189$ a number of studies in adults,

- NOTE Confidence: 0.8297204
- $00:40:11.190 \longrightarrow 00:40:13.460$ including one here at Yale

 $00{:}40{:}13.460 \dashrightarrow 00{:}40{:}15.276$ with my colleague Sam.

NOTE Confidence: 0.8297204

 $00:40:15.280 \longrightarrow 00:40:16.972$ Trying to give intensive

NOTE Confidence: 0.8297204

 $00:40:16.972 \rightarrow 00:40:18.664$ psychotherapy during the period

NOTE Confidence: 0.8297204

 $00{:}40{:}18.664 \dashrightarrow 00{:}40{:}20.820$ of acute ketamine treatment,

NOTE Confidence: 0.8297204

 $00{:}40{:}20{.}820 \dashrightarrow 00{:}40{:}24{.}950$ so CBT in his case.

NOTE Confidence: 0.8297204

 $00{:}40{:}24{.}950 \dashrightarrow 00{:}40{:}27{.}126$ But there are a number of other groups

NOTE Confidence: 0.8297204

 $00{:}40{:}27.126 \dashrightarrow 00{:}40{:}29.880$ out there that are looking at different

NOTE Confidence: 0.8297204

 $00:40:29.880 \rightarrow 00:40:31.596$ types of psychotherapeutic modalities,

NOTE Confidence: 0.8297204

 $00:40:31.600 \rightarrow 00:40:34.376$ so I think this is a really interesting

NOTE Confidence: 0.8297204

 $00{:}40{:}34{.}376$ --> $00{:}40{:}36{.}849$ and important area to be thinking about.

NOTE Confidence: 0.84106505

 $00{:}40{:}39{.}910 \dashrightarrow 00{:}40{:}42{.}007$ The third gap that keeps me up at night.

NOTE Confidence: 0.84106505

00:40:42.010 --> 00:40:44.810 You can tell I don't get a lot of sleep

NOTE Confidence: 0.84106505

 $00{:}40{:}44{.}883 \dashrightarrow 00{:}40{:}47{.}898$ and it's not just 'cause I have a new born.

NOTE Confidence: 0.84106505

 $00:40:47.900 \longrightarrow 00:40:49.100$ I like this cartoon,

 $00{:}40{:}49{.}100 \dashrightarrow 00{:}40{:}51{.}297$ says the tortoise and the hare is

NOTE Confidence: 0.84106505

 $00:40:51.297 \rightarrow 00:40:53.614$ actually a fable about small sample sizes.

NOTE Confidence: 0.84106505

00:40:53.620 --> 00:40:55.210 And he's reading and says

NOTE Confidence: 0.84106505

 $00:40:55.210 \longrightarrow 00:40:56.482$ after 19 additional trials.

NOTE Confidence: 0.84106505

 $00{:}40{:}56{.}490 \dashrightarrow 00{:}40{:}58{.}480$ Of course the results were

NOTE Confidence: 0.84106505

 $00{:}40{:}58{.}480 \dashrightarrow 00{:}41{:}00{.}072$ shown to be anomalous.

NOTE Confidence: 0.84106505

 $00:41:00.080 \longrightarrow 00:41:02.060$ And so, even though I'm really

NOTE Confidence: 0.84106505

 $00:41:02.060 \longrightarrow 00:41:03.784$ encouraged that we have this

NOTE Confidence: 0.84106505

00:41:03.784 --> 00:41:05.824 positive trial that just came out,

NOTE Confidence: 0.84106505

 $00:41:05.830 \rightarrow 00:41:07.846$ we really need larger sample sizes.

NOTE Confidence: 0.84106505

 $00{:}41{:}07.850 \dashrightarrow 00{:}41{:}09.878$ If you look at the history

NOTE Confidence: 0.84106505

 $00:41:09.878 \rightarrow 00:41:10.892$ of clinical trials,

NOTE Confidence: 0.84106505

00:41:10.900 --> 00:41:13.306 there are many stories of exciting

NOTE Confidence: 0.84106505

 $00:41:13.306 \longrightarrow 00:41:16.257$ trials with ends of 10 or 15 or 20

NOTE Confidence: 0.84106505

 $00:41:16.257 \rightarrow 00:41:19.008$ that do not pan out in the larger term.

NOTE Confidence: 0.84106505

 $00:41:19.010 \longrightarrow 00:41:22.698$ And so we really need a concerted effort

- NOTE Confidence: 0.84106505
- $00:41:22.698 \rightarrow 00:41:25.318$ across institutions with federal funding.
- NOTE Confidence: 0.84106505
- 00:41:25.320 --> 00:41:27.924 To try to do the rigorous studies
- NOTE Confidence: 0.84106505
- $00{:}41{:}27{.}924 \dashrightarrow 00{:}41{:}30{.}345$ that are needed so one question
- NOTE Confidence: 0.84106505
- $00:41:30.345 \longrightarrow 00:41:32.385$ and then a second question,
- NOTE Confidence: 0.84106505
- 00:41:32.390 --> 00:41:34.355 I think that's related is
- NOTE Confidence: 0.84106505
- $00:41:34.355 \longrightarrow 00:41:35.534$ what about suicidality?
- NOTE Confidence: 0.84106505
- 00:41:35.540 --> 00:41:37.898 Again, this was not really something
- NOTE Confidence: 0.84106505
- $00:41:37.898 \rightarrow 00:41:40.649$ that we addressed in our first trial,
- NOTE Confidence: 0.84106505
- $00:41:40.650 \longrightarrow 00:41:42.610$ but it's something that's very
- NOTE Confidence: 0.84106505
- $00:41:42.610 \longrightarrow 00:41:44.178$ much on our minds.
- NOTE Confidence: 0.84106505
- $00:41:44.180 \longrightarrow 00:41:46.948$ So what about suicidality?
- NOTE Confidence: 0.84106505
- $00{:}41{:}46{.}950 \dashrightarrow 00{:}41{:}49{.}162$ And then a fourth gap in our
- NOTE Confidence: 0.84106505
- $00:41:49.162 \rightarrow 00:41:51.046$ understanding is cademy, and for whom?
- NOTE Confidence: 0.84106505
- $00{:}41{:}51{.}046 \dashrightarrow 00{:}41{:}54{.}527$ And this this gap has a lot of pieces to it,
- NOTE Confidence: 0.84106505
- $00{:}41{:}54{.}530 \dashrightarrow 00{:}41{:}56{.}742$ so you could take it a lot
- NOTE Confidence: 0.84106505
$00:41:56.742 \rightarrow 00:41:58.950$ of different places. One is.

NOTE Confidence: 0.84106505

 $00{:}41{:}58{.}950 \dashrightarrow 00{:}42{:}03{.}360$ Disorders right so in the mean ha.

NOTE Confidence: 0.77073514

 $00:42:05.830 \longrightarrow 00:42:07.458$ He presses the promised

NOTE Confidence: 0.77073514

00:42:07.458 --> 00:42:09.086 data for anxiety disorders.

NOTE Confidence: 0.77073514

 $00{:}42{:}09{.}090 \dashrightarrow 00{:}42{:}11{.}088$ It has promising data for PTSD

NOTE Confidence: 0.77073514

 $00{:}42{:}11.088 \dashrightarrow 00{:}42{:}13.841$ and I think you know other folks NOTE Confidence: 0.77073514

 $00:42:13.841 \longrightarrow 00:42:16.086$ are investigating a number of

NOTE Confidence: 0.77073514

00:42:16.086 --> 00:42:18.070 other different DSM diagnosis,

NOTE Confidence: 0.77073514

00:42:18.070 --> 00:42:21.102 and I think you know I feel a

NOTE Confidence: 0.77073514

 $00:42:21.102 \longrightarrow 00:42:23.370$ few different ways about that.

NOTE Confidence: 0.77073514

00:42:23.370 --> 00:42:26.228 You know at first I thought, OK.

NOTE Confidence: 0.77073514

 $00:42:26.228 \rightarrow 00:42:28.268$ What is this a panacea?

NOTE Confidence: 0.77073514

00:42:28.270 --> 00:42:30.990 Cada mean for everyday mean?

NOTE Confidence: 0.77073514

 $00:42:30.990 \longrightarrow 00:42:34.054$ But then when you look at the list

NOTE Confidence: 0.77073514

 $00:42:34.054 \rightarrow 00:42:36.378$ of disorders that are up there,

NOTE Confidence: 0.77073514

 $00:42:36.380 \rightarrow 00:42:39.300$ you know SSR eyes are the first line

- NOTE Confidence: 0.77073514
- $00:42:39.300 \longrightarrow 00:42:42.156$ treatment for all four of those disorders,
- NOTE Confidence: 0.77073514
- $00:42:42.160 \longrightarrow 00:42:44.576$ so it would not be outside of our
- NOTE Confidence: 0.77073514
- $00:42:44.576 \rightarrow 00:42:46.528$ history that single medication or
- NOTE Confidence: 0.77073514
- $00:42:46.528 \longrightarrow 00:42:48.663$ type of medication is effective
- NOTE Confidence: 0.77073514
- $00:42:48.663 \rightarrow 00:42:50.240$ for multiple disorders,
- NOTE Confidence: 0.77073514
- $00{:}42{:}50{.}240 \dashrightarrow 00{:}42{:}52{.}165$ and I think that's relevant
- NOTE Confidence: 0.77073514
- $00:42:52.165 \longrightarrow 00:42:54.090$ to in child psychiatry work.
- NOTE Confidence: 0.77073514
- 00:42:54.090 --> 00:42:56.020 Comorbidity is so very common,
- NOTE Confidence: 0.77073514
- $00:42:56.020 \longrightarrow 00:42:57.612$ but thinking about whether
- NOTE Confidence: 0.77073514
- $00:42:57.612 \longrightarrow 00:43:00.445$ cada mean is useful in some of
- NOTE Confidence: 0.77073514
- $00:43:00.445 \longrightarrow 00:43:02.285$ these other disorders as a.
- NOTE Confidence: 0.77073514
- $00{:}43{:}02{.}290 \dashrightarrow 00{:}43{:}05{.}428$ Totally open question.
- NOTE Confidence: 0.77073514
- $00:43:05.430 \longrightarrow 00:43:07.758$ Another question about Kennedy firm is
- NOTE Confidence: 0.77073514
- $00{:}43{:}07.758 \dashrightarrow 00{:}43{:}09.759$ whether there are clinical features
- NOTE Confidence: 0.77073514
- $00{:}43{:}09{.}759 \dashrightarrow 00{:}43{:}11{.}699$ or predisposing factors that would
- NOTE Confidence: 0.77073514

 $00{:}43{:}11.699 \dashrightarrow 00{:}43{:}13.910$ make some one a better candidate.

NOTE Confidence: 0.77073514

 $00{:}43{:}13{.}910 \dashrightarrow 00{:}43{:}16{.}402$ So a number of these have been

NOTE Confidence: 0.77073514

00:43:16.402 --> 00:43:18.360 explored in adult psychiatry.

NOTE Confidence: 0.77073514

 $00{:}43{:}18{.}360 \dashrightarrow 00{:}43{:}20{.}988$ So anxious depression for a while was

NOTE Confidence: 0.77073514

 $00:43:20.988 \rightarrow 00:43:24.928$ sort of the hot topic for a particularly.

NOTE Confidence: 0.77073514

 $00{:}43{:}24{.}930 \dashrightarrow 00{:}43{:}26{.}654$ Good Academy in case.

NOTE Confidence: 0.77073514

00:43:26.654 --> 00:43:28.809 Anhedonia or loss of pleasure

NOTE Confidence: 0.77073514

 $00:43:28.809 \longrightarrow 00:43:30.600$ is another symptom.

NOTE Confidence: 0.77073514

 $00{:}43{:}30.600 \dashrightarrow 00{:}43{:}34.227$ That cada mean seems to be good at treating,

NOTE Confidence: 0.77073514

 $00:43:34.230 \longrightarrow 00:43:37.044$ and this can be a really sticky,

NOTE Confidence: 0.77073514

 $00{:}43{:}37.050 \dashrightarrow 00{:}43{:}38.990$ debilitating symptom that doesn't

NOTE Confidence: 0.77073514

00:43:38.990 - 00:43:41.415 get great coverage with SSRI's.

NOTE Confidence: 0.77073514

 $00:43:41.420 \longrightarrow 00:43:43.088$ And then a study came out.

NOTE Confidence: 0.77073514

 $00:43:43.090 \rightarrow 00:43:44.435$ Actually quite recently that showed

NOTE Confidence: 0.77073514

 $00:43:44.435 \longrightarrow 00:43:46.405$ the adults that had a history of

NOTE Confidence: 0.77073514

 $00:43:46.405 \rightarrow 00:43:47.557$ childhood trauma actually seemed

- NOTE Confidence: 0.77073514
- $00:43:47.557 \longrightarrow 00:43:49.230$ to do better with cada mean,
- NOTE Confidence: 0.77073514
- 00:43:49.230 --> 00:43:50.910 and I think that you know,
- NOTE Confidence: 0.77073514
- $00{:}43{:}50{.}910 \dashrightarrow 00{:}43{:}53{.}920$ is an interesting overlap with.
- NOTE Confidence: 0.77073514
- 00:43:53.920 --> 00:43:56.668 A potential PTSD implication.
- NOTE Confidence: 0.71453923
- $00:43:59.260 \longrightarrow 00:44:00.928$ Question of how do we separate?
- NOTE Confidence: 0.6548977
- $00:44:03.820 \rightarrow 00:44:04.490$ Today
- NOTE Confidence: 0.100207925
- 00:44:06.790 --> 00:44:07.390 uh?
- NOTE Confidence: 0.23248863
- $00:44:10.200 \rightarrow 00:44:15.934$ Cedar wood. Out. Who would respond and
- NOTE Confidence: 0.23248863
- $00{:}44{:}15{.}934 \dashrightarrow 00{:}44{:}18{.}310$ who would not respond to cada mean?
- NOTE Confidence: 0.23248863
- $00{:}44{:}18{.}310 \dashrightarrow 00{:}44{:}20{.}358$ And I think this really gets at the
- NOTE Confidence: 0.23248863
- $00{:}44{:}20{.}358 \dashrightarrow 00{:}44{:}22{.}670$ of a personalized medicine goal.
- NOTE Confidence: 0.23248863
- 00:44:22.670 --> 00:44:24.350 I think many of us,
- NOTE Confidence: 0.23248863
- $00:44:24.350 \rightarrow 00:44:26.240$ especially you know when you're seeing
- NOTE Confidence: 0.23248863
- $00:44:26.240 \longrightarrow 00:44:28.389$ people that have tried many treatments,
- NOTE Confidence: 0.23248863
- $00:44:28.390 \rightarrow 00:44:30.700$ this is a very fresh.
- NOTE Confidence: 0.23248863

- 00:44:30.700 --> 00:44:32.104 Things right, try something.
- NOTE Confidence: 0.23248863
- 00:44:32.104 --> 00:44:33.157 It doesn't work.
- NOTE Confidence: 0.23248863
- $00:44:33.160 \longrightarrow 00:44:34.920$ We try a new thing.
- NOTE Confidence: 0.23248863
- $00:44:34.920 \rightarrow 00:44:37.580$ We wait another eight weeks and we
- NOTE Confidence: 0.23248863
- $00{:}44{:}37{.}580 \dashrightarrow 00{:}44{:}39{.}740$ try something again and there is
- NOTE Confidence: 0.23248863
- 00:44:39.740 --> 00:44:41.952 just so much last time you know,
- NOTE Confidence: 0.23248863
- 00:44:41.960 --> 00:44:44.776 I think we see that in adult psychiatry,
- NOTE Confidence: 0.23248863
- $00:44:44.780 \longrightarrow 00:44:47.244$ but it is really acute in child
- NOTE Confidence: 0.23248863
- $00{:}44{:}47{.}244 \dashrightarrow 00{:}44{:}48{.}300$ and a dolescent psychiatry.
- NOTE Confidence: 0.23248863
- $00{:}44{:}48{.}300 \dashrightarrow 00{:}44{:}50{.}808$ Developmental time is precious.
- NOTE Confidence: 0.23248863
- $00{:}44{:}50{.}810 \dashrightarrow 00{:}44{:}53{.}120$ In this sort of empiric exercise of
- NOTE Confidence: 0.23248863
- $00{:}44{:}53{.}120 \dashrightarrow 00{:}44{:}55{.}402$ just trying things and they work or
- NOTE Confidence: 0.23248863
- $00:44:55.402 \rightarrow 00:44:57.238$ they don't work without any real.
- NOTE Confidence: 0.23248863
- 00:44:57.240 --> 00:45:01.380 Predictive data or strategy.
- NOTE Confidence: 0.23248863
- $00{:}45{:}01{.}380 \dashrightarrow 00{:}45{:}06{.}875$ I think we you know patients failed.
- NOTE Confidence: 0.23248863
- $00:45:06.880 \longrightarrow 00:45:09.740$ So personalizing a goal?

- NOTE Confidence: 0.84745795
- $00:45:12.620 \longrightarrow 00:45:15.308$ I did this summer.
- NOTE Confidence: 0.84745795
- 00:45:15.310 --> 00:45:17.344 Out I'm interested to hear gaps
- NOTE Confidence: 0.84745795
- $00:45:17.344 \longrightarrow 00:45:20.731$ are on your to remind you how to
- NOTE Confidence: 0.84745795
- $00:45:20.731 \rightarrow 00:45:22.683$ extend the antidepressant efficacy.
- NOTE Confidence: 0.84745795
- $00{:}45{:}22.690 \dashrightarrow 00{:}45{:}24.740$ While the risks of repeat
- NOTE Confidence: 0.84745795
- 00:45:24.740 --> 00:45:26.790 dosing or not fully known.
- NOTE Confidence: 0.85713524
- $00:45:29.640 \longrightarrow 00:45:32.608$ The reason whether we can partner cada mean
- NOTE Confidence: 0.85713524
- $00:45:32.608 \rightarrow 00:45:35.868$ with more traditional psychiatric approaches.
- NOTE Confidence: 0.85713524
- 00:45:35.870 --> 00:45:38.048 Does Academy have antidepressant and anti
- NOTE Confidence: 0.85713524
- 00:45:38.048 --> 00:45:40.140 suicidal properties in pediatric populations?
- NOTE Confidence: 0.85713524
- $00:45:40.140 \longrightarrow 00:45:44.640$ We need bigger studies and we need them now.
- NOTE Confidence: 0.85713524
- $00{:}45{:}44.640 \dashrightarrow 00{:}45{:}46.130$ And then personalized medicine approaches.
- NOTE Confidence: 0.85713524
- $00{:}45{:}46{.}130 \dashrightarrow 00{:}45{:}48{.}794$ So who are the best candidates for cada mean?
- NOTE Confidence: 0.85713524
- $00{:}45{:}48.800 \dashrightarrow 00{:}45{:}50.805$ And can we predict treatment
- NOTE Confidence: 0.85713524
- $00:45:50.805 \rightarrow 00:45:52.810$ response is ahead of time?
- NOTE Confidence: 0.85713524

 $00:45:52.810 \rightarrow 00:45:55.610$ And so I will spend my last five

NOTE Confidence: 0.85713524

 $00:45:55.610 \rightarrow 00:45:57.639$ minutes talking about some of the

NOTE Confidence: 0.85713524

 $00:45:57.639 \rightarrow 00:46:00.109$ work that is doing to try to get.

NOTE Confidence: 0.85713524

 $00{:}46{:}00{.}110$ --> $00{:}46{:}03{.}078$ The questions and so I'm going to talk

NOTE Confidence: 0.85713524

00:46:03.078 --> 00:46:05.690 about some repeat dosing clinical trials

NOTE Confidence: 0.85713524

 $00:46:05.690 \rightarrow 00:46:08.680$ that we have getting ready to go.

NOTE Confidence: 0.85713524

00:46:08.680 --> 00:46:10.268 So there's two studies,

NOTE Confidence: 0.85713524

 $00:46:10.268 \longrightarrow 00:46:13.569$ so one is called the sad kid study.

NOTE Confidence: 0.85713524

 $00{:}46{:}13.570 \dashrightarrow 00{:}46{:}16.018$ This is an acronym that took

NOTE Confidence: 0.85713524

 $00:46:16.018 \rightarrow 00:46:17.650$ many weeks to develop.

NOTE Confidence: 0.85713524

 $00{:}46{:}17.650 \dashrightarrow 00{:}46{:}19.282$ The severe adolescent depression,

NOTE Confidence: 0.85713524

 $00:46:19.282 \rightarrow 00:46:21.322$ cada mean intermediate duration study.

NOTE Confidence: 0.85713524

 $00:46:21.330 \longrightarrow 00:46:24.438$ This was a mentor toward that.

NOTE Confidence: 0.85713524

 $00{:}46{:}24{.}440 \dashrightarrow 00{:}46{:}26{.}545$ Starting with the Klingons tied

NOTE Confidence: 0.85713524

 $00{:}46{:}26{.}545 \dashrightarrow 00{:}46{:}28{.}229$ third Generation Foundation when

NOTE Confidence: 0.85713524

 $00:46:28.229 \rightarrow 00:46:30.957$ I was in my last year of the solar

- NOTE Confidence: 0.85713524
- $00{:}46{:}30{.}957 \dashrightarrow 00{:}46{:}33{.}062$ program and was bolstered by an

00:46:33.062 --> 00:46:34.902 8 cap Junior Investigator award.

NOTE Confidence: 0.85713524

00:46:34.910 --> 00:46:37.736 It's mentored by Jerry and Michael.

NOTE Confidence: 0.85713524

 $00:46:37.740 \longrightarrow 00:46:39.876$ And then a second study which

NOTE Confidence: 0.85713524

00:46:39.876 --> 00:46:41.300 I'm really excited about.

NOTE Confidence: 0.85713524

 $00{:}46{:}41.300 \dashrightarrow 00{:}46{:}44.297$ So this is the recent are one that I

NOTE Confidence: 0.85713524

 $00:46:44.297 \rightarrow 00:46:46.997$ received were calling us the read study,

NOTE Confidence: 0.85713524

00:46:47.000 --> 00:46:48.059 reducing adolescent suicidality.

NOTE Confidence: 0.85713524

 $00{:}46{:}48.059 \dashrightarrow 00{:}46{:}50.946$ And then I can't have a title that

NOTE Confidence: 0.85713524

 $00:46:50.946 \longrightarrow 00:46:53.046$ doesn't have some long extra subtitle,

NOTE Confidence: 0.85713524

 $00:46:53.050 \longrightarrow 00:46:53.760$ safety, efficacy,

NOTE Confidence: 0.85713524

00:46:53.760 --> 00:46:56.222 and connectome phenotypes of Ivy, Cada mean.

NOTE Confidence: 0.85713524

 $00{:}46{:}56{.}222 \dashrightarrow 00{:}46{:}58{.}609$ And I'm talking about these two together

NOTE Confidence: 0.85713524

 $00{:}46{:}58.609 \dashrightarrow 00{:}47{:}00.518$ because they have similar designs.

NOTE Confidence: 0.85713524

 $00{:}47{:}00{.}520 \dashrightarrow 00{:}47{:}03{.}432$ I really like this design 'cause I think

 $00:47:03.432 \longrightarrow 00:47:05.950$ it balances the rigor of a parallel

NOTE Confidence: 0.85713524

 $00:47:05.950 \dashrightarrow 00:47:08.439$ design trial with sort of a patient.

NOTE Confidence: 0.85713524

00:47:08.440 --> 00:47:09.296 Friendly option,

NOTE Confidence: 0.85713524

 $00:47:09.296 \rightarrow 00:47:12.292$ so I'll tell you about these together,

NOTE Confidence: 0.85713524

 $00{:}47{:}12.300 \dashrightarrow 00{:}47{:}14.868$ so both of these studies are

NOTE Confidence: 0.85713524

 $00:47:14.868 \longrightarrow 00:47:16.152$ two phase trials.

NOTE Confidence: 0.85713524

 $00{:}47{:}16.160 \dashrightarrow 00{:}47{:}19.376$ So in the first phase people are randomized

NOTE Confidence: 0.85713524

 $00{:}47{:}19.376 \dashrightarrow 00{:}47{:}22.099$ to receive several doses of either

NOTE Confidence: 0.85713524

 $00{:}47{:}22.099 \dashrightarrow 00{:}47{:}25.170$ repeat CADA mean or repeat medazzal and AM.

NOTE Confidence: 0.85713524

 $00{:}47{:}25{.}170 \dashrightarrow 00{:}47{:}27{.}618$ After that period there is an

NOTE Confidence: 0.85713524

 $00{:}47{:}27.618 \dashrightarrow 00{:}47{:}29.890$ open phase of several months.

NOTE Confidence: 0.85713524

 $00{:}47{:}29.890 \dashrightarrow 00{:}47{:}32.035$ The people that received cada

NOTE Confidence: 0.85713524

00:47:32.035 --> 00:47:34.180 mean just go straight through.

NOTE Confidence: 0.85713524

 $00:47:34.180 \longrightarrow 00:47:35.464$ They received standard

NOTE Confidence: 0.85713524

 $00:47:35.464 \rightarrow 00:47:36.748$ depression treatment weekly,

NOTE Confidence: 0.85713524

 $00:47:36.750 \longrightarrow 00:47:38.754 \mod assessments and monthly$

- NOTE Confidence: 0.85713524
- $00:47:38.754 \longrightarrow 00:47:40.758$ cognitive and mood batteries.

 $00{:}47{:}40.760 \dashrightarrow 00{:}47{:}42.840$ And then the part that I really like.

NOTE Confidence: 0.85713524

 $00:47:42.840 \longrightarrow 00:47:44.370$ Like if I were thinking about

NOTE Confidence: 0.85713524

 $00:47:44.370 \longrightarrow 00:47:45.959$ enrolling in a trial like this,

NOTE Confidence: 0.85713524

00:47:45.960 --> 00:47:47.260 my worry would be, hey,

NOTE Confidence: 0.85713524

00:47:47.260 --> 00:47:48.560 you know I'm very symptomatic.

NOTE Confidence: 0.85713524

 $00:47:48.560 \longrightarrow 00:47:50.120$ I've tried a lot of things.

NOTE Confidence: 0.85713524

 $00{:}47{:}50{.}120 \dashrightarrow 00{:}47{:}52{.}514$ What if I get place bo and I don't get

NOTE Confidence: 0.85713524

 $00:47:52.514 \rightarrow 00:47:54.539$ better like what do I do with that?

NOTE Confidence: 0.85713524

 $00{:}47{:}54{.}540 \dashrightarrow 00{:}47{:}55{.}580$ And so I think.

NOTE Confidence: 0.67543274

 $00:47:58.020 \longrightarrow 00:48:03.555$ That that as a lamb if they do not.

NOTE Confidence: 0.67543274

 $00{:}48{:}03.560 \dashrightarrow 00{:}48{:}06.265$ Improvement are then offered the

NOTE Confidence: 0.67543274

 $00:48:06.265 \rightarrow 00:48:09.487$ opportunity to receive the CADA mean

NOTE Confidence: 0.67543274

 $00{:}48{:}09{.}487 \dashrightarrow 00{:}48{:}12{.}871$ paradigm in the open phase and then we NOTE Confidence: 0.67543274

NOTE Confidence. 0.07545274

 $00{:}48{:}12.871 \dashrightarrow 00{:}48{:}16.430$ follow every one over that period of months.

 $00:48:16.430 \longrightarrow 00:48:18.090$ The differences between the

NOTE Confidence: 0.67543274

00:48:18.090 --> 00:48:20.580 studies are sort of shown here,

NOTE Confidence: 0.67543274

 $00:48:20.580 \longrightarrow 00:48:23.902$ so in the sad kids, we're looking at

NOTE Confidence: 0.67543274

 $00:48:23.902 \rightarrow 00:48:25.558$ pediatric treatment resistant oppression.

NOTE Confidence: 0.67543274

 $00{:}48{:}25{.}560 \dashrightarrow 00{:}48{:}28{.}496$ The paradigm is 6 inches and there is

NOTE Confidence: 0.67543274

 $00{:}48{:}28{.}496 \dashrightarrow 00{:}48{:}31{.}419$ an allowance for a couple additional

NOTE Confidence: 0.67543274

 $00:48:31.419 \rightarrow 00:48:33.003$ symptom triggered maintenance

NOTE Confidence: 0.67543274

 $00{:}48{:}33.003 \dashrightarrow 00{:}48{:}35.942$ infusions and then the primary outcome

NOTE Confidence: 0.67543274

 $00{:}48{:}35{.}942 \dashrightarrow 00{:}48{:}38{.}486$ for the top study is depression.

NOTE Confidence: 0.67543274

 $00:48:38.490 \rightarrow 00:48:41.444$ And that contrasts with the NIH study,

NOTE Confidence: 0.67543274

 $00:48:41.450 \longrightarrow 00:48:43.565$ where the population is not

NOTE Confidence: 0.67543274

00:48:43.565 --> 00:48:44.834 only pediatric TRD,

NOTE Confidence: 0.67543274

 $00:48:44.840 \longrightarrow 00:48:47.378$ but also folks that have been

NOTE Confidence: 0.67543274

 $00{:}48{:}47{.}378$ --> $00{:}48{:}49{.}070$ struggling with suicidal ideations.

NOTE Confidence: 0.67543274

 $00{:}48{:}49{.}070 \dashrightarrow 00{:}48{:}52{.}255$ So they have to have both treatment

NOTE Confidence: 0.67543274

 $00:48:52.255 \rightarrow 00:48:54.182$ resistant depression and significant

 $00:48:54.182 \longrightarrow 00:48:57.092$ suicidal thinking or action in the

NOTE Confidence: 0.67543274

 $00{:}48{:}57.092 \dashrightarrow 00{:}48{:}59.690$ four months prior to enrollment.

NOTE Confidence: 0.67543274

 $00{:}48{:}59{.}690$ --> $00{:}49{:}02{.}812$ This paradigm is using four infusions and NOTE Confidence: 0.67543274

 $00{:}49{:}02{.}812$ --> $00{:}49{:}05{.}760$ our primary outcome is suicidal thinking. NOTE Confidence: 0.67543274

 $00{:}49{:}05{.}760 \dashrightarrow 00{:}49{:}08{.}658$ So we hope that most of the people that NOTE Confidence: 0.67543274

 $00{:}49{:}08.658 \dashrightarrow 00{:}49{:}11.334$ come across our way that are appropriate

NOTE Confidence: 0.67543274

 $00{:}49{:}11{.}334 \dashrightarrow 00{:}49{:}14{.}206$ for this kind of treatment would fit

NOTE Confidence: 0.67543274

 $00:49:14.206 \rightarrow 00:49:17.174$ into one of these two clinical trials.

NOTE Confidence: 0.67543274

 $00:49:17.180 \longrightarrow 00:49:19.610$ And then the last piece which

NOTE Confidence: 0.67543274

 $00:49:19.610 \longrightarrow 00:49:21.230$ I'm really excited about.

NOTE Confidence: 0.67543274

 $00:49:21.230 \longrightarrow 00:49:23.813$ You might have noticed this tiny brain

NOTE Confidence: 0.67543274

 $00{:}49{:}23.813 \dashrightarrow 00{:}49{:}25.955$ just appeared under the enroll in

NOTE Confidence: 0.67543274

 $00{:}49{:}25{.}955 \dashrightarrow 00{:}49{:}28{.}223$ randomized and we've worked to try to

NOTE Confidence: 0.67543274

 $00:49:28.291 \longrightarrow 00:49:30.831$ get at that prediction personalized

NOTE Confidence: 0.67543274

00:49:30.831 -> 00:49:32.863 medicine piece by incorporating

 $00:49:32.863 \rightarrow 00:49:34.192$ neuroimaging strategically into

NOTE Confidence: 0.67543274

 $00:49:34.192 \longrightarrow 00:49:35.410$ these clinical trials.

NOTE Confidence: 0.67543274

 $00{:}49{:}35{.}410 \dashrightarrow 00{:}49{:}37{.}435$ So this is a collaboration

NOTE Confidence: 0.67543274

 $00:49:37.435 \rightarrow 00:49:38.650$ with Todd Constable,

NOTE Confidence: 0.67543274

 $00{:}49{:}38.650 \dashrightarrow 00{:}49{:}41.618$ who's here at Yale in the Department

NOTE Confidence: 0.67543274

 $00{:}49{:}41{.}618 \dashrightarrow 00{:}49{:}44{.}490$ of Radiology and Biomedical Imaging.

NOTE Confidence: 0.67543274

 $00{:}49{:}44{.}490 \dashrightarrow 00{:}49{:}46{.}962$ And so we're interested in functional

NOTE Confidence: 0.67543274

 $00:49:46.962 \longrightarrow 00:49:48.198$ connectome response predictors.

NOTE Confidence: 0.67543274

 $00{:}49{:}48.200 \dashrightarrow 00{:}49{:}50.666$ So what does that actually mean?

NOTE Confidence: 0.67543274

 $00:49:50.670 \rightarrow 00:49:55.008$ So Todd's lab has developed this.

NOTE Confidence: 0.67543274

00:49:55.010 --> 00:49:57.095 This algorithm called connectome based NOTE Confidence: 0.67543274

 $00:49:57.095 \rightarrow 00:49:59.180$ predictive modeling and what that

NOTE Confidence: 0.67543274

 $00{:}49{:}59{.}238 \dashrightarrow 00{:}50{:}01{.}150$ means is that you go in a magnet.

NOTE Confidence: 0.67543274

 $00{:}50{:}01{.}150 \dashrightarrow 00{:}50{:}03{.}684$ You do some resting state stuff where

NOTE Confidence: 0.67543274

00:50:03.684 --> 00:50:06.509 you just rest you do a series of

NOTE Confidence: 0.67543274

 $00{:}50{:}06{.}509 \dashrightarrow 00{:}50{:}08{.}878$ tasks which are listed below and the

 $00:50:08.878 \rightarrow 00:50:11.062$ tasks are designed to try to sort

NOTE Confidence: 0.67543274

 $00{:}50{:}11.062 \dashrightarrow 00{:}50{:}13.410$ of stretch your brain across all

NOTE Confidence: 0.67543274

 $00:50:13.410 \longrightarrow 00:50:15.034$ of these different neurocognitive

NOTE Confidence: 0.67543274

 $00:50:15.034 \rightarrow 00:50:17.077$ domains and by getting like a full

NOTE Confidence: 0.67543274

 $00:50:17.077 \rightarrow 00:50:19.216$ picture of how your brain is working

NOTE Confidence: 0.67543274

 $00:50:19.216 \rightarrow 00:50:20.588$ across all these domains,

NOTE Confidence: 0.67543274

 $00:50:20.590 \rightarrow 00:50:23.014$ you get this highly individual connectome

NOTE Confidence: 0.67543274

 $00:50:23.014 \rightarrow 00:50:25.856$ fingerprint and then you try to see if that.

NOTE Confidence: 0.67543274

00:50:25.860 --> 00:50:27.628 Highly individual fingerprint is

NOTE Confidence: 0.67543274

 $00:50:27.628 \rightarrow 00:50:29.396$ associated with treatment response.

NOTE Confidence: 0.67543274

 $00:50:29.400 \longrightarrow 00:50:32.508$ The scan time is under an hour,

NOTE Confidence: 0.67543274

 $00:50:32.510 \longrightarrow 00:50:35.464$ so we think it's feasible and why

NOTE Confidence: 0.67543274

 $00{:}50{:}35{.}464 \dashrightarrow 00{:}50{:}38{.}080$ I'm excited about this is Todd's

NOTE Confidence: 0.67543274

 $00{:}50{:}38.080 \dashrightarrow 00{:}50{:}41.034$ group is showed that you can predict

NOTE Confidence: 0.67543274

 $00:50:41.117 \rightarrow 00:50:42.689$ with this approach.

- $00:50:42.690 \rightarrow 00:50:44.034$ Symptoms of interest,
- NOTE Confidence: 0.67543274
- $00{:}50{:}44.034 \dashrightarrow 00{:}50{:}46.274$ so things like in attention in
- NOTE Confidence: 0.67543274
- 00:50:46.274 --> 00:50:48.450 ADHD sample or autism scores,
- NOTE Confidence: 0.67543274
- $00:50:48.450 \rightarrow 00:50:51.994$ and a mixed sample of ADHD and autism.
- NOTE Confidence: 0.67543274
- 00:50:52.000 --> 00:50:52.904 Sarah Yep,
- NOTE Confidence: 0.67543274
- $00{:}50{:}52{.}904 \dashrightarrow 00{:}50{:}55{.}616$ slab here has used this for
- NOTE Confidence: 0.67543274
- 00:50:55.616 --> 00:50:56.520 treatment outcomes.
- NOTE Confidence: 0.67543274
- $00:50:56.520 \rightarrow 00:50:59.103$ So she had a great paper and a JP
- NOTE Confidence: 0.67543274
- $00{:}50{:}59{.}103 \dashrightarrow 00{:}51{:}01{.}809$ that showed that they could predict
- NOTE Confidence: 0.67543274
- 00:51:01.809 --> 00:51:04.149 success in cocaine use disorder
- NOTE Confidence: 0.67543274
- $00:51:04.233 \longrightarrow 00:51:06.348$ using this kind of approach,
- NOTE Confidence: 0.67543274
- $00:51:06.350 \rightarrow 00:51:09.158$ but there really has not been any pediatric
- NOTE Confidence: 0.67543274
- 00:51:09.158 --> 00:51:11.847 work trying to predict treatment response.
- NOTE Confidence: 0.67543274
- $00:51:11.850 \rightarrow 00:51:14.594$ With neuroimaging in a clinical trial design.
- NOTE Confidence: 0.67543274
- $00:51:14.600 \longrightarrow 00:51:16.575$ So I'm super excited about
- NOTE Confidence: 0.67543274
- $00:51:16.575 \longrightarrow 00:51:19.309$ this and hope it can move us.

- NOTE Confidence: 0.67543274
- $00:51:19.310 \longrightarrow 00:51:20.783$ Maybe one step,
- NOTE Confidence: 0.67543274
- $00{:}51{:}20.783 \dashrightarrow 00{:}51{:}23.729$ one inch closer on the personalized
- NOTE Confidence: 0.67543274
- $00:51:23.729 \longrightarrow 00:51:24.800$ medicine front.
- NOTE Confidence: 0.67543274
- 00:51:24.800 --> 00:51:26.072 I'm also excited because
- NOTE Confidence: 0.67543274
- 00:51:26.072 --> 00:51:27.980 I think that NIH is really
- NOTE Confidence: 0.82081467
- $00:51:28.047 \longrightarrow 00:51:29.607$ starting to prioritize
- NOTE Confidence: 0.82081467
- 00:51:29.607 --> 00:51:31.167 rapid acting interventions,
- NOTE Confidence: 0.82081467
- $00:51:31.170 \longrightarrow 00:51:34.194$ so this was a highlight that they
- NOTE Confidence: 0.82081467
- 00:51:34.194 --> 00:51:36.260 published recently about the RFA
- NOTE Confidence: 0.82081467
- 00:51:36.260 --> 00:51:38.330 that my new grant is through,
- NOTE Confidence: 0.82081467
- $00:51:38.330 \rightarrow 00:51:40.742$ so there were eight studies awarded
- NOTE Confidence: 0.82081467
- $00{:}51{:}40{.}742 \dashrightarrow 00{:}51{:}43{.}508$ and four of them are for youth,
- NOTE Confidence: 0.82081467
- $00{:}51{:}43{.}510 \dashrightarrow 00{:}51{:}45{.}886$ so I'm really encouraged by that.
- NOTE Confidence: 0.82081467
- $00{:}51{:}45{.}890 \dashrightarrow 00{:}51{:}48{.}676$ So mine is there at the top.
- NOTE Confidence: 0.82081467
- $00:51:48.680 \rightarrow 00:51:51.452$ There's a group at Cleveland Clinic that's
- NOTE Confidence: 0.82081467

- $00{:}51{:}51{.}452 \dashrightarrow 00{:}51{:}54{.}588$ also doing a pediatric cada mean study.
- NOTE Confidence: 0.82081467
- $00{:}51{:}54{.}590 \dashrightarrow 00{:}51{:}56{.}756$ In a group at you T.
- NOTE Confidence: 0.82081467
- 00:51:56.760 --> 00:51:57.063 Southwestern,
- NOTE Confidence: 0.82081467
- $00{:}51{:}57{.}063 \dashrightarrow 00{:}51{:}59{.}487$ and then I also highlighting I I sort
- NOTE Confidence: 0.82081467
- $00{:}51{:}59{.}487 \dashrightarrow 00{:}52{:}01{.}563$ of listed all these interventional
- NOTE Confidence: 0.82081467
- 00:52:01.563 > 00:52:03.275 techniques including our TMS,
- NOTE Confidence: 0.82081467
- 00:52:03.280 --> 00:52:06.168 but I didn't really talk about our TMS.
- NOTE Confidence: 0.82081467
- $00:52:06.170 \longrightarrow 00:52:07.980$ The rest of this talk,
- NOTE Confidence: 0.82081467
- 00:52:07.980 --> 00:52:10.836 but there's also an R TMS study that's
- NOTE Confidence: 0.82081467
- $00{:}52{:}10.836 \dashrightarrow 00{:}52{:}14.234$ trying to use that technique to reduce
- NOTE Confidence: 0.82081467
- $00{:}52{:}14.234 \dashrightarrow 00{:}52{:}16.318$ suicidal ideations in adolescence.
- NOTE Confidence: 0.82081467
- 00:52:16.320 --> 00:52:19.700 So I threw a lot of things that you during
- NOTE Confidence: 0.82081467
- $00:52:19.781 \rightarrow 00:52:22.997$ this hour and I guess to summarize them,
- NOTE Confidence: 0.82081467
- $00:52:23.000 \rightarrow 00:52:24.855$ I view the current status
- NOTE Confidence: 0.82081467
- $00{:}52{:}24.855 \dashrightarrow 00{:}52{:}27.890$ as cautious optimism, but.
- NOTE Confidence: 0.82081467
- 00:52:27.890 --> 00:52:30.614 I think the unknown risk profile

- NOTE Confidence: 0.82081467
- $00:52:30.614 \rightarrow 00:52:33.050$ of the repeated exposure component

 $00{:}52{:}33.050 \dashrightarrow 00{:}52{:}35.720$ makes the risk benefit analysis

NOTE Confidence: 0.82081467

 $00:52:35.720 \longrightarrow 00:52:37.856$ really complicated to do.

NOTE Confidence: 0.82081467

 $00{:}52{:}37{.}860 \dashrightarrow 00{:}52{:}40{.}420$ So the things that I think about you

NOTE Confidence: 0.82081467

 $00{:}52{:}40{.}420 \dashrightarrow 00{:}52{:}42{.}684$ know folks don't fit neatly within

NOTE Confidence: 0.82081467

 $00{:}52{:}42.684 \dashrightarrow 00{:}52{:}45.012$ a clinical trial is that patients

NOTE Confidence: 0.82081467

 $00:52:45.086 \rightarrow 00:52:47.536$ should be truly treatment resistant,

NOTE Confidence: 0.82081467

 $00:52:47.540 \longrightarrow 00:52:48.953$ so carefully confirming

NOTE Confidence: 0.82081467

 $00{:}52{:}48{.}953 \dashrightarrow 00{:}52{:}50{.}837$ their past treatment trials.

NOTE Confidence: 0.82081467

 $00:52:50.840 \longrightarrow 00:52:52.655$ There needs to be informed

NOTE Confidence: 0.82081467

00:52:52.655 - 00:52:54.107 consent about the risks,

NOTE Confidence: 0.82081467

 $00{:}52{:}54{.}110 \dashrightarrow 00{:}52{:}54{.}978$ the benefits,

NOTE Confidence: 0.82081467

 $00:52:54.978 \rightarrow 00:52:58.016$ and just our overall state of understanding.

NOTE Confidence: 0.82081467

 $00{:}52{:}58{.}020 \dashrightarrow 00{:}53{:}01{.}072$ There needs to be direct supervision by

NOTE Confidence: 0.82081467

 $00:53:01.072 \longrightarrow 00:53:03.297$ physicians that have adequate training

 $00:53:03.297 \rightarrow 00:53:06.237$ and having a solid follow up plan.

NOTE Confidence: 0.82081467

 $00{:}53{:}06{.}240 \dashrightarrow 00{:}53{:}08{.}904$ And then the last sort of plug for

NOTE Confidence: 0.82081467

 $00:53:08.904 \rightarrow 00:53:11.516$ the work that our group is doing. NOTE Confidence: 0.82081467

 $00{:}53{:}11{.}520 \dashrightarrow 00{:}53{:}13{.}333$ Is this work that we started doing

NOTE Confidence: 0.82081467

00:53:13.333 --> 00:53:15.063 during COVID as more pediatric

NOTE Confidence: 0.82081467

 $00{:}53{:}15{.}063 \dashrightarrow 00{:}53{:}16{.}859$ patients and families seek

NOTE Confidence: 0.82081467

00:53:16.859 --> 00:53:18.206 interventional psychiatric services?

NOTE Confidence: 0.82081467

 $00:53:18.210 \rightarrow 00:53:20.196$ What kind of availability attitudes or

NOTE Confidence: 0.82081467

 $00{:}53{:}20.196 \dashrightarrow 00{:}53{:}22.080$ practice parameters do they encounter?

NOTE Confidence: 0.82081467

 $00{:}53{:}22{.}080 \dashrightarrow 00{:}53{:}24{.}397$ And so we really wanted to hear

NOTE Confidence: 0.82081467

 $00{:}53{:}24{.}397 \dashrightarrow 00{:}53{:}26{.}193$ from providers in the Community

NOTE Confidence: 0.82081467

 $00:53:26.193 \longrightarrow 00:53:28.762$ about what do you know about these?

NOTE Confidence: 0.82081467

 $00:53:28.770 \rightarrow 00:53:31.938$ Do you know how to refer someone to these?

NOTE Confidence: 0.82081467

 $00{:}53{:}31{.}940 \dashrightarrow 00{:}53{:}34{.}836$ Do use these yourself and so you are

NOTE Confidence: 0.82081467

 $00:53:34.836 \rightarrow 00:53:38.124$ exactly the people that we wanted to talk to.

NOTE Confidence: 0.82081467

 $00:53:38.130 \rightarrow 00:53:41.847$ If you snap a photo of this QR code,

- NOTE Confidence: 0.82081467
- $00:53:41.850 \longrightarrow 00:53:44.328$ it will take you to a survey

 $00{:}53{:}44{.}328 \dashrightarrow 00{:}53{:}46{.}800$ that just asks about attitudes,

NOTE Confidence: 0.82081467

 $00:53:46.800 \longrightarrow 00:53:48.865$ availability and practice parameters of

NOTE Confidence: 0.82081467

 $00:53:48.865 \rightarrow 00:53:50.930$ these types of treatment modalities.

NOTE Confidence: 0.82081467

 $00{:}53{:}50{.}930 \dashrightarrow 00{:}53{:}53{.}359$ 'cause I think we know that finding

NOTE Confidence: 0.82081467

 $00{:}53{:}53{.}359 \dashrightarrow 00{:}53{:}55{.}965$ any kind of mental health treatment

NOTE Confidence: 0.82081467

00:53:55.965 - 00:53:57.949 can be really daunting,

NOTE Confidence: 0.82081467

 $00:53:57.950 \rightarrow 00:54:00.020$ particularly in the current climate.

NOTE Confidence: 0.82081467

 $00:54:00.020 \rightarrow 00:54:02.498$ With COVID stretching people very thin,

NOTE Confidence: 0.82081467

 $00{:}54{:}02{.}500 \dashrightarrow 00{:}54{:}04{.}972$ so looking for specialized care of

NOTE Confidence: 0.82081467

 $00{:}54{:}04{.}972 \dashrightarrow 00{:}54{:}08{.}400$ this nature, I think is even more.

NOTE Confidence: 0.82081467

00:54:08.400 --> 00:54:08.766 Tricky,

NOTE Confidence: 0.82081467

 $00{:}54{:}08.766 \dashrightarrow 00{:}54{:}11.694$ and so we'd like to see what kind

NOTE Confidence: 0.82081467

 $00:54:11.694 \dashrightarrow 00:54:14.728$ of things our patients are facing.

NOTE Confidence: 0.82081467

 $00{:}54{:}14.730 \dashrightarrow 00{:}54{:}17.762$ So I'm going to stop there and just

 $00:54:17.762 \longrightarrow 00:54:20.808$ say thank you so to our patients

NOTE Confidence: 0.82081467

 $00:54:20.808 \longrightarrow 00:54:23.003$ and their families to current

NOTE Confidence: 0.82081467

 $00{:}54{:}23.087 \dashrightarrow 00{:}54{:}24.859$ and past lab members.

NOTE Confidence: 0.82081467

00:54:24.860 --> 00:54:27.386 To my mentors Michael and Jerry,

NOTE Confidence: 0.82081467

 $00:54:27.390 \longrightarrow 00:54:29.500$ who have just been supportive,

NOTE Confidence: 0.82081467

 $00:54:29.500 \longrightarrow 00:54:31.610$ an amazing both during my

NOTE Confidence: 0.82081467

00:54:31.610 --> 00:54:32.876 residency and fellowship,

NOTE Confidence: 0.82081467

 $00:54:32.880 \rightarrow 00:54:34.990$ but perhaps even more importantly,

NOTE Confidence: 0.82081467

 $00:54:34.990 \longrightarrow 00:54:37.100$ during the junior faculty period,

NOTE Confidence: 0.82081467

 $00:54:37.100 \longrightarrow 00:54:38.714$ which is tricky.

NOTE Confidence: 0.82081467

 $00{:}54{:}38{.}714 \dashrightarrow 00{:}54{:}41{.}942$ So I really appreciate their work.

NOTE Confidence: 0.82081467

 $00:54:41.950 \longrightarrow 00:54:42.793$ In their help,

NOTE Confidence: 0.82081467

 $00:54:42.793 \longrightarrow 00:54:43.917$ and then of course,

NOTE Confidence: 0.82081467

 $00:54:43.920 \longrightarrow 00:54:45.588$ the folks that are funding the

NOTE Confidence: 0.82081467

 $00{:}54{:}45{.}588 \dashrightarrow 00{:}54{:}47{.}540$ work down on the bottom left and

NOTE Confidence: 0.82081467

 $00:54:47.540 \longrightarrow 00:54:49.360$ I would be happy to take any

- NOTE Confidence: 0.8813159
- $00:54:49.422 \rightarrow 00:54:51.782$ questions or chat in the couple of minutes

 $00{:}54{:}51{.}782 \dashrightarrow 00{:}54{:}53{.}508$ that we have remaining. Thank you.

NOTE Confidence: 0.80372745

 $00:54:59.170 \longrightarrow 00:55:01.445$ So thank you very much for the

NOTE Confidence: 0.80372745

 $00:55:01.445 \rightarrow 00:55:02.752$ excellent talk. I'm actually

NOTE Confidence: 0.80372745

 $00{:}55{:}02.752 \dashrightarrow 00{:}55{:}04.708$ not gonna ask a question 'cause

NOTE Confidence: 0.80372745

 $00{:}55{:}04{.}710 \dashrightarrow 00{:}55{:}07{.}310$ I got stuff in chat. My

NOTE Confidence: 0.7867074

 $00{:}55{:}07{.}310 \dashrightarrow 00{:}55{:}09{.}641$ chat has been blown up with questions

NOTE Confidence: 0.7867074

00:55:09.641 --> 00:55:12.639 for you, so I guess I was gonna start

NOTE Confidence: 0.7867074

 $00{:}55{:}12.640 \dashrightarrow 00{:}55{:}15.384$ off by just calling on a future solemate

NOTE Confidence: 0.7867074

 $00{:}55{:}15{.}384 \dashrightarrow 00{:}55{:}17{.}763$ Max Rowlison who had a question for

NOTE Confidence: 0.7867074

 $00:55:17.763 \dashrightarrow 00:55:19.969$ you and Christiana Mills is on deck.

NOTE Confidence: 0.8635998

 $00{:}55{:}23.030 \dashrightarrow 00{:}55{:}25.485$ Hey Jenny, thanks so much.

NOTE Confidence: 0.8635998

00:55:25.485 --> 00:55:27.450 Really exciting work and

NOTE Confidence: 0.8635998

 $00{:}55{:}27{.}450 \dashrightarrow 00{:}55{:}30{.}550$ very impressive results.

NOTE Confidence: 0.8469991

 $00{:}55{:}30{.}550 \dashrightarrow 00{:}55{:}32{.}344$ My question, many adolescents with

- $00:55:32.344 \rightarrow 00:55:34.500$ treatment resistant depression kind of, as
- NOTE Confidence: 0.8469991
- 00:55:34.500 --> 00:55:36.290 you alluded to, have Co
- NOTE Confidence: 0.8469991
- 00:55:36.290 --> 00:55:37.370 occurring psychiatric disorders,
- NOTE Confidence: 0.8469991
- 00:55:37.370 --> 00:55:39.170 in particular anxiety in OC
- NOTE Confidence: 0.8469991
- 00:55:39.170 --> 00:55:40.238 D come to
- NOTE Confidence: 0.8469991
- $00{:}55{:}40{.}240 \dashrightarrow 00{:}55{:}41{.}320$ mind and how
- NOTE Confidence: 0.8469991
- $00{:}55{:}41{.}320 \dashrightarrow 00{:}55{:}43{.}480$ do you think about integrating cada
- NOTE Confidence: 0.8469991
- $00:55:43.480 \rightarrow 00:55:45.339$ mean and depression treatment when
- NOTE Confidence: 0.8469991
- $00{:}55{:}45{.}339 \dashrightarrow 00{:}55{:}47{.}499$ there also are these Co occurring
- NOTE Confidence: 0.8469991
- $00{:}55{:}47{.}499 \dashrightarrow 00{:}55{:}49{.}301$ psychiatric disorders that are likely
- NOTE Confidence: 0.8469991
- $00:55:49.301 \rightarrow 00:55:50.650$ contributing to the presentation?
- NOTE Confidence: 0.8031807
- $00{:}55{:}54{.}020 \dashrightarrow 00{:}55{:}57{.}548$ Yeah, I think comorbidity is a really
- NOTE Confidence: 0.8031807
- $00{:}55{:}57{.}548 \dashrightarrow 00{:}56{:}00{.}704$ important question and we actually are
- NOTE Confidence: 0.8031807
- $00{:}56{:}00{.}704 \dashrightarrow 00{:}56{:}03{.}824$ seeing this OC D depression comorbid
- NOTE Confidence: 0.8031807
- $00:56:03.824 \rightarrow 00:56:05.544$ phenotype relatively frequently
- NOTE Confidence: 0.8031807
- $00:56:05.544 \rightarrow 00:56:08.868$ in the clinical work we're doing

- NOTE Confidence: 0.8031807
- $00:56:08.868 \rightarrow 00:56:13.130$ through the pediatric TRD clinic.

00:56:13.130 --> 00:56:15.601 So I I think including those tricky

NOTE Confidence: 0.8031807

 $00{:}56{:}15{.}601 \dashrightarrow 00{:}56{:}18{.}070$ cases in clinical trials is important.

NOTE Confidence: 0.8031807

00:56:18.070 --> 00:56:20.350 Oh, everyone's frozen on my screen,

NOTE Confidence: 0.8031807

 $00:56:20.350 \rightarrow 00:56:23.010$ which is maybe not a good sign.

NOTE Confidence: 0.8584589

 $00{:}56{:}25{.}030 \dashrightarrow 00{:}56{:}28{.}086$ But there's some data that cada mean can

NOTE Confidence: 0.8584589

 $00:56:28.086 \rightarrow 00:56:30.996$ be helpful for OCD symptoms. Be that

NOTE Confidence: 0.8584589

 $00{:}56{:}30{.}996 \dashrightarrow 00{:}56{:}33{.}782$ they would get relief in both domains.

NOTE Confidence: 0.88005775

 $00:56:37.490 \longrightarrow 00:56:38.270$ Thank you.

NOTE Confidence: 0.8381179

 $00:56:41.590 \longrightarrow 00:56:42.745$ Christiana, Europe north.

NOTE Confidence: 0.8381179

 $00:56:42.745 \longrightarrow 00:56:45.838$ Thank you. So thank you so much for

NOTE Confidence: 0.8381179

 $00{:}56{:}45{.}840 \dashrightarrow 00{:}56{:}47{.}764$ that presentation was really interesting.

NOTE Confidence: 0.8381179

00:56:47.764 --> 00:56:50.856 I was curious if in your newer studies

NOTE Confidence: 0.8381179

 $00{:}56{:}50{.}856 \dashrightarrow 00{:}56{:}53{.}558$ it's going to be possible to collect

NOTE Confidence: 0.8381179

 $00{:}56{:}53{.}560 \dashrightarrow 00{:}56{:}55{.}868$ some information about trauma in the

 $00:56:55.868 \rightarrow 00:56:58.186$ subjects and our clinical in our

NOTE Confidence: 0.8381179

 $00{:}56{:}58{.}186 \dashrightarrow 00{:}57{:}00{.}118$ clinical population. The rate of

NOTE Confidence: 0.8381179

 $00:57:00.120 \longrightarrow 00:57:03.202$ trauma is really high and so I just

NOTE Confidence: 0.8381179

 $00{:}57{:}03.202 \dashrightarrow 00{:}57{:}05.520$ be curious what you would learn.

NOTE Confidence: 0.4784004

00:57:15.470 --> 00:57:15.960 Oh

NOTE Confidence: 0.8402469

00:57:17.900 --> 00:57:20.511 sorry, I turn my camera off 'cause

NOTE Confidence: 0.8402469

00:57:20.511 -> 00:57:22.609 my feed doesn't sound great.

NOTE Confidence: 0.8402469

 $00{:}57{:}22.610 \dashrightarrow 00{:}57{:}26.554$ I think what I heard was asking about

NOTE Confidence: 0.8402469

 $00{:}57{:}26{.}554$ --> $00{:}57{:}31{.}080$ trauma information in our population and we.

NOTE Confidence: 0.8402469

 $00{:}57{:}31{.}080 \dashrightarrow 00{:}57{:}32{.}564$ The Childhood Trauma questionnaire.

NOTE Confidence: 0.8402469

 $00{:}57{:}32{.}564 \dashrightarrow 00{:}57{:}35{.}199$ As part of our pre screening and

NOTE Confidence: 0.8402469

 $00:57:35.199 \rightarrow 00:57:36.939$ there's no exclusion for trauma,

NOTE Confidence: 0.8402469

 $00{:}57{:}36{.}940 \dashrightarrow 00{:}57{:}39{.}551$ so we think that those are appropriate

NOTE Confidence: 0.8402469

 $00{:}57{:}39{.}551 \dashrightarrow 00{:}57{:}41{.}688$ patients to come to this study.

NOTE Confidence: 0.8402469

 $00:57:41.690 \rightarrow 00:57:43.886$ Barring any of the other exclusions.

NOTE Confidence: 0.8402469

 $00:57:43.890 \longrightarrow 00:57:47.082$ But we think this could be a good

- NOTE Confidence: 0.8402469
- $00:57:47.082 \rightarrow 00:57:50.220$ fit for some of those patients.

 $00:57:50.220 \rightarrow 00:57:53.090$ I guess I was a little curious

NOTE Confidence: 0.8948352

 $00:57:53.090 \rightarrow 00:57:56.594$ like what is the rate of your subjects

NOTE Confidence: 0.8948352

 $00:57:56.594 \rightarrow 00:57:59.130$ reporting some significant trauma?

NOTE Confidence: 0.8948352

 $00:57:59.130 \rightarrow 00:58:00.985$ I wasn't suggesting that they be excluded.

NOTE Confidence: 0.8948352

00:58:00.990 --> 00:58:02.310 I was just curious what

NOTE Confidence: 0.8948352

 $00:58:02.310 \longrightarrow 00:58:03.366$ you learned about them.

NOTE Confidence: 0.89314735

00:58:04.860 --> 00:58:07.919 Sure, I mean in our first study,

NOTE Confidence: 0.89314735

 $00{:}58{:}07{.}920 \dashrightarrow 00{:}58{:}11{.}112$ the rate was relatively low and I think

NOTE Confidence: 0.89314735

 $00:58:11.112 \longrightarrow 00:58:14.468$ part of that was an outpatient study.

NOTE Confidence: 0.89314735

 $00:58:14.470 \longrightarrow 00:58:17.529$ Many of the people that found us

NOTE Confidence: 0.89314735

 $00{:}58{:}17.529 \dashrightarrow 00{:}58{:}18.403$ found us throughclinical trials.gov.

NOTE Confidence: 0.89314735

 $00{:}58{:}18{.}410 \dashrightarrow 00{:}58{:}21{.}026$ It was a more affluent population,

NOTE Confidence: 0.89314735

 $00:58:21.030 \rightarrow 00:58:23.646$ so those rates were relatively low.

NOTE Confidence: 0.8971419

 $00{:}58{:}26{.}730 \dashrightarrow 00{:}58{:}29{.}138$ We're going to work harder to get the

00:58:29.138 --> 00:58:31.380 word out for these newer studies,

NOTE Confidence: 0.8971419

 $00{:}58{:}31{.}380 \dashrightarrow 00{:}58{:}33{.}927$ and so I would expect that it would be

NOTE Confidence: 0.8971419

 $00{:}58{:}33{.}927 \dashrightarrow 00{:}58{:}36{.}689$ a higher rate in the upcoming study,

NOTE Confidence: 0.8971419

 $00:58:36.690 \longrightarrow 00:58:38.676$ but that remains to be seen.

NOTE Confidence: 0.8762969

00:58:41.890 --> 00:58:44.138 I guess I I guess it's 2:00 o'clock,

NOTE Confidence: 0.8762969

 $00{:}58{:}44{.}140 \dashrightarrow 00{:}58{:}46{.}220$ so I guess people who need to jump

NOTE Confidence: 0.8762969

00:58:46.220 --> 00:58:47.985 off should please jump off and

NOTE Confidence: 0.8762969

00:58:47.985 --> 00:58:49.755 not feel bad about jumping off.

NOTE Confidence: 0.8762969

00:58:49.760 --> 00:58:52.128 I'm wondering, can we stay on to answer

NOTE Confidence: 0.8762969

 $00{:}58{:}52{.}128 \dashrightarrow 00{:}58{:}55{.}097$ a few more questions if people have them.

NOTE Confidence: 0.8762969

 $00:58:55.100 \dashrightarrow 00:58:59.558$ Metal OK. We're not going to be too sure.

NOTE Confidence: 0.8762969

00:58:59.560 --> 00:59:01.618 OK, we're gonna I guess Larry

NOTE Confidence: 0.8762969

00:59:01.618 --> 00:59:03.827 Villanos I know still on 'cause I

NOTE Confidence: 0.8762969

00:59:03.827 --> 00:59:06.400 can see him on camera so I was hoping

NOTE Confidence: 0.8762969

 $00{:}59{:}06{.}400 \dashrightarrow 00{:}59{:}08{.}180$ he could ask his question.

NOTE Confidence: 0.8259987

00:59:10.070 --> 00:59:12.290 Yeah, just first of all Jenny.

- NOTE Confidence: 0.8259987
- $00:59:12.290 \rightarrow 00:59:14.510$ That was an amazing talk really.

 $00{:}59{:}14{.}510 \dashrightarrow 00{:}59{:}17{.}142$ You're so clear and concise and I

NOTE Confidence: 0.8259987

00:59:17.142 --> 00:59:19.688 just learned a lot and you know,

NOTE Confidence: 0.8259987

 $00:59:19.690 \longrightarrow 00:59:20.986$ so proud of you.

NOTE Confidence: 0.8259987

 $00{:}59{:}20{.}986 \dashrightarrow 00{:}59{:}22{.}930$ So I was wondering about the

NOTE Confidence: 0.8259987

 $00:59:23.006 \dashrightarrow 00:59:25.236$ recreation appeal of CADA mean.

NOTE Confidence: 0.8259987

00:59:25.240 --> 00:59:27.208 You know, Special K and and

NOTE Confidence: 0.8259987

 $00:59:27.208 \longrightarrow 00:59:30.050$ what it is an in the population.

NOTE Confidence: 0.8259987

 $00{:}59{:}30{.}050 \dashrightarrow 00{:}59{:}32{.}866$ It just made me think are there individuals

NOTE Confidence: 0.8259987

 $00:59:32.866 \rightarrow 00:59:35.228$ out there who are self medicating?

NOTE Confidence: 0.8259987

 $00:59:35.230 \longrightarrow 00:59:37.855$ You know, with the with the abuse

NOTE Confidence: 0.8259987

00:59:37.855 --> 00:59:40.370 of cada mean in your opinion.

NOTE Confidence: 0.8259987

 $00:59:40.370 \longrightarrow 00:59:42.127$ Never thought about this before your talk

NOTE Confidence: 0.8259987

 $00{:}59{:}42.127 \dashrightarrow 00{:}59{:}44.239$ and I just I just wondered about that.

NOTE Confidence: 0.88437635

 $00{:}59{:}45.670 \dashrightarrow 00{:}59{:}48.127$ Yeah, I think it's a great question.

 $00:59:48.130 \rightarrow 00:59:50.594$ We I was recently doing a conference,

NOTE Confidence: 0.88437635

 $00{:}59{:}50{.}600 \dashrightarrow 00{:}59{:}52{.}360$ a virtual conference at Oxford

NOTE Confidence: 0.88437635

 $00{:}59{:}52{.}360 \dashrightarrow 00{:}59{:}54{.}516$ with Academy Group and there was

NOTE Confidence: 0.88437635

 $00{:}59{:}54{.}516 \dashrightarrow 00{:}59{:}56{.}520$ a presenter there that was talking

NOTE Confidence: 0.88437635

 $00{:}59{:}56{.}520 \dashrightarrow 00{:}59{:}58{.}659$ about Kennedy and use patterns in

NOTE Confidence: 0.88437635

 $00{:}59{:}58.659 \dashrightarrow 01{:}00{:}00.449$ various places across the globe.

NOTE Confidence: 0.88437635

 $01{:}00{:}00{.}450 \dashrightarrow 01{:}00{:}02{.}962$ And we talked about this idea of whether

NOTE Confidence: 0.88437635

 $01{:}00{:}02{.}962 \dashrightarrow 01{:}00{:}05{.}188$ there's a component or a proportion

NOTE Confidence: 0.88437635

 $01{:}00{:}05{.}188 \dashrightarrow 01{:}00{:}07{.}486$ of people that are self medicating.

NOTE Confidence: 0.88437635

01:00:07.490 --> 01:00:10.122 And I think you know that maybe that

NOTE Confidence: 0.88437635

01:00:10.122 $\operatorname{-->}$ 01:00:12.746 may be the case of particularly as

NOTE Confidence: 0.88437635

01:00:12.746 --> 01:00:15.699 the news has gone out that this is.

NOTE Confidence: 0.88437635

 $01:00:15.700 \longrightarrow 01:00:17.800$ Can be a helpful thing.

NOTE Confidence: 0.88437635

 $01:00:17.800 \rightarrow 01:00:20.554$ I would imagine that that might

NOTE Confidence: 0.88437635

 $01:00:20.554 \longrightarrow 01:00:23.034$ you know increase further and

NOTE Confidence: 0.88437635

 $01:00:23.034 \rightarrow 01:00:25.286$ there are certainly hypotheses.

- NOTE Confidence: 0.88437635
- $01:00:25.290 \longrightarrow 01:00:27.468$ About you know folks that use
- NOTE Confidence: 0.88437635
- $01{:}00{:}27.468 \dashrightarrow 01{:}00{:}28.557$ psychostimulant recreationally that
- NOTE Confidence: 0.88437635
- 01:00:28.557 --> 01:00:30.689 have undiagnosed or undertreated ADHD,
- NOTE Confidence: 0.88437635
- $01:00:30.690 \longrightarrow 01:00:32.620$ so I think you know.
- NOTE Confidence: 0.88437635
- $01:00:32.620 \longrightarrow 01:00:35.065$ Thinking about self medication is
- NOTE Confidence: 0.88437635
- $01:00:35.065 \rightarrow 01:00:39.138$ A is a good thing to keep in mind.
- NOTE Confidence: 0.88437635
- $01:00:39.140 \longrightarrow 01:00:39.420$ And
- NOTE Confidence: 0.8299319
- $01:00:39.420 \longrightarrow 01:00:40.825$ what was the original attraction
- NOTE Confidence: 0.8299319
- $01{:}00{:}40.825 \dashrightarrow 01{:}00{:}42.792$ as a regulation of drugs? I mean,
- NOTE Confidence: 0.8299319
- $01:00:42.792 \rightarrow 01:00:44.478$ what's the appeal of dissociating or?
- NOTE Confidence: 0.8954605
- 01:00:46.530 --> 01:00:48.690 I don't know if I have
- NOTE Confidence: 0.8954605
- $01{:}00{:}48.690 \dashrightarrow 01{:}00{:}50.670$ a great answer to that.
- NOTE Confidence: 0.8954605
- 01:00:50.670 01:00:52.910 I mean, I think some people are
- NOTE Confidence: 0.8954605
- $01:00:52.910 \dashrightarrow 01:00:54.338$ just interested in altering
- NOTE Confidence: 0.8954605
- $01:00:54.338 \rightarrow 01:00:56.323$ their experience and maybe what
- NOTE Confidence: 0.8954605

- $01:00:56.323 \rightarrow 01:00:58.560$ one person would find pleasant.
- NOTE Confidence: 0.8954605
- 01:00:58.560 --> 01:01:00.816 Another person would find very unpleasant,
- NOTE Confidence: 0.8954605
- $01{:}01{:}00.820 \dashrightarrow 01{:}01{:}03.445$ but I'm not sure. I'm not sure.
- NOTE Confidence: 0.9411007
- 01:01:04.570 --> 01:01:07.540 OK. Thank you.
- NOTE Confidence: 0.84383040000001
- 01:01:09.000 $\operatorname{-->}$ 01:01:11.628 I guess I'm gonna, I think also would be
- NOTE Confidence: 0.84383040000001
- $01:01:11.628 \rightarrow 01:01:13.923$ worth just mentioning what the stuff we NOTE Confidence: 0.843830400000001
- 01:01:13.923 --> 01:01:16.683 do to prevent the abuse of the Academy
- NOTE Confidence: 0.84383040000001
- 01:01:16.683 --> 01:01:18.777 were giving subjects in the study.
- NOTE Confidence: 0.84383040000001
- 01:01:18.780 $\operatorname{-->}$ 01:01:21.132 Is that way there's no take home cada
- NOTE Confidence: 0.84383040000001
- $01{:}01{:}21{.}132 \dashrightarrow 01{:}01{:}23{.}389$ mean and fairly all the treatments or
- NOTE Confidence: 0.843830400000001
- $01{:}01{:}23.389 \dashrightarrow 01{:}01{:}25.950$ are given in a clinic based setting.
- NOTE Confidence: 0.84383040000001
- $01:01:25.950 \longrightarrow 01:01:27.906$ And that's true of the provider.
- NOTE Confidence: 0.84383040000001
- $01{:}01{:}27{.}910 \dashrightarrow 01{:}01{:}29{.}166$ The FDA medication too.
- NOTE Confidence: 0.843830400000001
- $01:01:29.166 \longrightarrow 01:01:31.458$ I guess I'm going to call and
- NOTE Confidence: 0.843830400000001
- $01:01:31.458 \longrightarrow 01:01:32.469$ Emily Olson next.
- NOTE Confidence: 0.843830400000001
- $01:01:32.470 \longrightarrow 01:01:34.745$ She had a question in the chat.

- NOTE Confidence: 0.8341726
- 01:01:38.100 --> 01:01:39.420 Great talk Jenny.
- NOTE Confidence: 0.8341726
- 01:01:39.420 --> 01:01:42.054 I was just thinking about I
- NOTE Confidence: 0.8341726
- $01{:}01{:}42.054 \dashrightarrow 01{:}01{:}44.706$ read a New York Times article
- NOTE Confidence: 0.8341726
- 01:01:44.706 --> 01:01:46.923 yesterday that talked about a
- NOTE Confidence: 0.8341726
- 01:01:46.923 --> 01:01:49.419 study done in a dults in PTSD
- NOTE Confidence: 0.8341726
- $01:01:49.419 \rightarrow 01:01:51.709$ where they found that MDMA.
- NOTE Confidence: 0.8599134
- $01{:}01{:}53.720 \dashrightarrow 01{:}01{:}56.144$ Made it was effective when combined
- NOTE Confidence: 0.8599134
- $01{:}01{:}56{.}144 \dashrightarrow 01{:}01{:}58{.}444$ with the rapy in helping PTSD and
- NOTE Confidence: 0.8599134
- 01:01:58.444 --> 01:02:00.572 as I was listening to your talk
- NOTE Confidence: 0.8599134
- 01:02:00.580 --> 01:02:02.743 and thinking about what you were
- NOTE Confidence: 0.8599134
- $01{:}02{:}02{.}743 \dashrightarrow 01{:}02{:}04{.}909$ saying about this after cada mean,
- NOTE Confidence: 0.8599134
- 01:02:04.910 --> 01:02:06.710 like taking advantage of that
- NOTE Confidence: 0.8599134
- $01{:}02{:}06.710 \dashrightarrow 01{:}02{:}08.880$ period using in depression and kids.
- NOTE Confidence: 0.8599134
- $01{:}02{:}08.880 \dashrightarrow 01{:}02{:}11.050$ I was just thinking about whether
- NOTE Confidence: 0.8599134
- $01:02:11.050 \longrightarrow 01:02:13.504$ Cada mean is going to be a part
- NOTE Confidence: 0.8599134

01:02:13.504 --> 01:02:16.459 of kind of a group of medication,

NOTE Confidence: 0.8599134

 $01{:}02{:}16.460 \dashrightarrow 01{:}02{:}18.265$ some kind of new medications

NOTE Confidence: 0.8599134

01:02:18.265 --> 01:02:19.709 and I was wondering,

NOTE Confidence: 0.8599134

 $01{:}02{:}19{.}710 \dashrightarrow 01{:}02{:}21{.}690$ given your expertise and you

NOTE Confidence: 0.8599134

 $01:02:21.690 \longrightarrow 01:02:24.390$ know a lot about this weather.

NOTE Confidence: 0.8599134

 $01:02:24.390 \longrightarrow 01:02:26.376$ What your thoughts were on this?

NOTE Confidence: 0.86590177

 $01:02:28.440 \longrightarrow 01:02:30.438$ And kind of what you thought

NOTE Confidence: 0.86590177

 $01:02:30.438 \longrightarrow 01:02:32.727$ the future would be. And I mean,

NOTE Confidence: 0.86590177

01:02:32.727 --> 01:02:34.960 I think it's a
mazing how quickly you're

NOTE Confidence: 0.86590177

 $01:02:35.031 \rightarrow 01:02:37.095$ you're now studying this in kids,

NOTE Confidence: 0.86590177

01:02:37.100 --> 01:02:38.760 which I think is wonderful,

NOTE Confidence: 0.86590177

 $01{:}02{:}38.760 \dashrightarrow 01{:}02{:}40.405$ and whether these other treatments

NOTE Confidence: 0.86590177

01:02:40.405 --> 01:02:42.772 I know there's a lot of talk

NOTE Confidence: 0.86590177

 $01:02:42.772 \longrightarrow 01:02:44.088$ about psilocybin as well.

NOTE Confidence: 0.86590177

 $01:02:44.090 \longrightarrow 01:02:45.605$ What your thoughts are about

NOTE Confidence: 0.86590177

 $01:02:45.605 \rightarrow 01:02:47.562$ kind of bringing these as these

- NOTE Confidence: 0.86590177
- $01{:}02{:}47.562 \dashrightarrow 01{:}02{:}49.090$ developments come in adults,

 $01{:}02{:}49{.}090 \dashrightarrow 01{:}02{:}51{.}752$ seeing if they also help kids as well.

NOTE Confidence: 0.86590177

 $01:02:51.752 \rightarrow 01:02:52.748$ Whether it's depression,

NOTE Confidence: 0.86590177

01:02:52.748 --> 01:02:53.750 anxiety, PTSD, etc.

NOTE Confidence: 0.9351715

01:02:55.940 --> 01:02:58.466 Yeah, I mean it's a great.

NOTE Confidence: 0.9351715

 $01{:}02{:}58.470 \dashrightarrow 01{:}03{:}01{.}062$ Question, and I think I read the same

NOTE Confidence: 0.9351715

 $01:03:01.062 \longrightarrow 01:03:03.138$ article that you did and you know,

NOTE Confidence: 0.9351715

 $01:03:03.140 \longrightarrow 01:03:05.429$ I think the folks that are studying

NOTE Confidence: 0.9351715

 $01{:}03{:}05{.}429 \dashrightarrow 01{:}03{:}07{.}905$ psilocybin and maybe MDA may as well have

NOTE Confidence: 0.9351715

 $01{:}03{:}07{.}905 \dashrightarrow 01{:}03{:}10{.}010$ kind of a different attitude about it

NOTE Confidence: 0.9351715

 $01:03:10.010 \dashrightarrow 01:03:12.145$ than a lot of the Academy researchers.

NOTE Confidence: 0.9351715

 $01{:}03{:}12{.}150 \dashrightarrow 01{:}03{:}14.638$ And I don't quite know why that is.

NOTE Confidence: 0.9351715

01:03:14.640 --> 01:03:18.186 But you know, I think the.

NOTE Confidence: 0.9351715

 $01:03:18.190 \longrightarrow 01:03:20.780$ Experience is a key part of the

NOTE Confidence: 0.9351715

 $01{:}03{:}20.780 \dashrightarrow 01{:}03{:}22.400$ the rapeutic ingredients for the MD,

- 01:03:22.400 --> 01:03:23.752 MA and psilocybin studies,
- NOTE Confidence: 0.9351715
- $01{:}03{:}23.752 \dashrightarrow 01{:}03{:}26.582$ whereas I think a lot of the CADA
- NOTE Confidence: 0.9351715
- 01:03:26.582 -> 01:03:28.772 mean studies folks kind of view
- NOTE Confidence: 0.9351715
- $01{:}03{:}28.772 \dashrightarrow 01{:}03{:}30.829$ the experience as like a nuisance.
- NOTE Confidence: 0.9351715
- $01:03:30.830 \longrightarrow 01:03:32.936$ And like if we could build
- NOTE Confidence: 0.9351715
- 01:03:32.936 --> 01:03:33.989 a better mouse trap,
- NOTE Confidence: 0.9351715
- $01{:}03{:}33{.}990 \dashrightarrow 01{:}03{:}36{.}090$ we would not have the experience.
- NOTE Confidence: 0.9351715
- $01{:}03{:}36{.}090 \dashrightarrow 01{:}03{:}38{.}505$ I think even the choice of Esketamine
- NOTE Confidence: 0.9351715
- $01{:}03{:}38.505 \dashrightarrow 01{:}03{:}40.299$ with Janssen they thought OK,
- NOTE Confidence: 0.9351715
- $01{:}03{:}40{.}300 \dashrightarrow 01{:}03{:}42{.}060$ this has less dissociated stuff.
- NOTE Confidence: 0.9351715
- $01:03:42.060 \rightarrow 01:03:44.160$ It binds tighter Dan and MDA.
- NOTE Confidence: 0.9351715
- $01{:}03{:}44{.}160 \dashrightarrow 01{:}03{:}47{.}000$ You know the best cada mean would have
- NOTE Confidence: 0.9351715
- $01:03:47.000 \dashrightarrow 01:03:49.767$ nothing and so it's really a difference.
- NOTE Confidence: 0.9351715
- 01:03:49.770 --> 01:03:51.795 A different way of viewing
- NOTE Confidence: 0.9351715
- $01:03:51.795 \longrightarrow 01:03:53.820$ things and there's, you know,
- NOTE Confidence: 0.9351715
- $01:03:53.820 \rightarrow 01:03:56.655$ some evidence for and some against on,

- NOTE Confidence: 0.9351715
- $01:03:56.660 \rightarrow 01:03:57.872$ the dissociative experience

 $01:03:57.872 \longrightarrow 01:03:59.488$ correlating with treatment efficacy.

NOTE Confidence: 0.9351715

 $01:03:59.490 \rightarrow 01:04:03.135$ So there's some data sort of on both sides,

NOTE Confidence: 0.9351715

 $01:04:03.140 \longrightarrow 01:04:06.840$ so in a way I think they are sort of

NOTE Confidence: 0.9351715

 $01:04:06.947 \longrightarrow 01:04:10.425$ all in this bubble of, like you know,

NOTE Confidence: 0.9351715

 $01{:}04{:}10.425 \dashrightarrow 01{:}04{:}12.045$ rediscovered or newly appreciated.

NOTE Confidence: 0.9351715

 $01{:}04{:}12.050 \dashrightarrow 01{:}04{:}14.913$ Medications that had some kind of stigma

NOTE Confidence: 0.9351715

 $01{:}04{:}14{.}913 \dashrightarrow 01{:}04{:}17{.}915$ attached to them before that are now

NOTE Confidence: 0.9351715

 $01:04:17.915 \rightarrow 01:04:20.459$ being re explored in rigorous contexts.

NOTE Confidence: 0.9351715

01:04:20.460 --> 01:04:23.700 I think in terms of like

NOTE Confidence: 0.9351715

 $01{:}04{:}23.700 \dashrightarrow 01{:}04{:}25.860$ translating things into Pediatrics.

NOTE Confidence: 0.9351715

01:04:25.860 --> 01:04:28.060 You know, I feel like.

NOTE Confidence: 0.9351715

01:04:28.060 --> 01:04:29.710 I mean has a history.

NOTE Confidence: 0.8848151

 $01{:}04{:}31{.}970 \dashrightarrow 01{:}04{:}34{.}262$ Nervous, the other types of things

NOTE Confidence: 0.8848151

 $01:04:34.262 \rightarrow 01:04:36.609$ that really don't have a pediatric
01:04:36.609 --> 01:04:38.474 safety history or use ever,

NOTE Confidence: 0.8848151

01:04:38.480 --> 01:04:41.970 so I don't think I would be at the front

NOTE Confidence: 0.8848151

 $01:04:42.061 \longrightarrow 01:04:45.373$ of the line to be doing those studies,

NOTE Confidence: 0.8848151

 $01{:}04{:}45{.}380 \dashrightarrow 01{:}04{:}48{.}780$ but I think for all of these types of things

NOTE Confidence: 0.8848151

01:04:48.866 --> 01:04:51.865 it's like a risk benefit analysis, right?

NOTE Confidence: 0.8848151

 $01{:}04{:}51{.}865 \dashrightarrow 01{:}04{:}54{.}420$ If someone has tried everything that we

NOTE Confidence: 0.8848151

 $01:04:54.420 \rightarrow 01:04:57.276$ have and nothing has worked, including ECT.

NOTE Confidence: 0.8848151

01:04:57.276 --> 01:04:59.664 Think it's hard to make an

NOTE Confidence: 0.8848151

 $01:04:59.664 \rightarrow 01:05:01.838$ argument that if they're really,

NOTE Confidence: 0.8848151

 $01:05:01.840 \longrightarrow 01:05:04.000$ you know, want to try something,

NOTE Confidence: 0.8848151

 $01{:}05{:}04.000 \dashrightarrow 01{:}05{:}06.520$ especially in like a clinical trial context,

NOTE Confidence: 0.8848151

 $01:05:06.520 \longrightarrow 01:05:07.248$ you know.

NOTE Confidence: 0.8848151

 $01{:}05{:}07{.}248 \dashrightarrow 01{:}05{:}09{.}068$ These are risk benefit discussions

NOTE Confidence: 0.8848151

 $01{:}05{:}09.068 \dashrightarrow 01{:}05{:}11.099$ and reasonable people can disagree so,

NOTE Confidence: 0.8848151

 $01:05:11.100 \dashrightarrow 01:05:13.170$ but it's a very interesting area.

NOTE Confidence: 0.8848151

01:05:13.170 --> 01:05:15.494 I think in terms of just ethics

- NOTE Confidence: 0.8848151
- $01{:}05{:}15{.}494 \dashrightarrow 01{:}05{:}17{.}319$ and trial design and access.
- NOTE Confidence: 0.83130443
- $01:05:24.150 \longrightarrow 01:05:24.550$ It.
- NOTE Confidence: 0.7409805
- $01:05:30.370 \longrightarrow 01:05:33.930$ Jenny, we lost you Jenny.
- NOTE Confidence: 0.7409805
- 01:05:33.930 --> 01:05:37.376 The. But I will.
- NOTE Confidence: 0.7409805
- $01{:}05{:}37{.}376 \dashrightarrow 01{:}05{:}41{.}281$ I guess I'll step over the silence and
- NOTE Confidence: 0.7409805
- $01:05:41.281 \dashrightarrow 01:05:44.640$ then just say that I think we people.
- NOTE Confidence: 0.7409805
- 01:05:44.640 --> 01:05:48.040 OK yeah, I think you're back.
- NOTE Confidence: 0.7409805
- $01:05:48.040 \rightarrow 01:05:50.412$ Let's see or I will.
- NOTE Confidence: 0.7409805
- $01:05:50.412 \longrightarrow 01:05:52.758$ I think we're going to have
- NOTE Confidence: 0.7409805
- $01:05:52.758 \longrightarrow 01:05:54.999$ to wrap up in a second,
- NOTE Confidence: 0.7409805
- $01:05:55.000 \rightarrow 01:05:57.133$ but by it's a big thing is that we've
- NOTE Confidence: 0.7409805
- 01:05:57.133 --> 01:05:59.607 both been very hesitant to look at
- NOTE Confidence: 0.7409805
- $01{:}05{:}59{.}607 \dashrightarrow 01{:}06{:}01{.}055$ the other psychedelic medications.
- NOTE Confidence: 0.7409805
- 01:06:01.060 $\operatorname{-->}$ 01:06:02.560 'cause I think there's already
- NOTE Confidence: 0.7409805
- $01{:}06{:}02.560 \dashrightarrow 01{:}06{:}04.689$ one of the issues with cada mean.
- NOTE Confidence: 0.7409805

 $01:06:04.690 \dashrightarrow 01:06:06.508$ And as Academy that seem like

NOTE Confidence: 0.7409805

 $01:06:06.508 \rightarrow 01:06:07.720$ they're very promising treatments.

NOTE Confidence: 0.7409805

 $01:06:07.720 \longrightarrow 01:06:12.560$ Or the. The cavalier nature of it.

NOTE Confidence: 0.859945240000001

01:06:14.670 - 01:06:17.145 I just think it mean is so much better

NOTE Confidence: 0.859945240000001

 $01{:}06{:}17.145 \dashrightarrow 01{:}06{:}19.792$ if the data profile than the other

NOTE Confidence: 0.859945240000001

 $01:06:19.792 \rightarrow 01:06:22.053$ medications at the moment or the NOTE Confidence: 0.859945240000001

 $01:06:22.053 \rightarrow 01:06:24.356$ drugs both in terms of efficacy and

NOTE Confidence: 0.859945240000001

 $01:06:24.356 \longrightarrow 01:06:26.688$ safety than it would really get it.

NOTE Confidence: 0.859945240000001

 $01:06:26.690 \rightarrow 01:06:28.755$ It may. It may hurt the credibility

NOTE Confidence: 0.859945240000001

 $01{:}06{:}28.755 \dashrightarrow 01{:}06{:}31.555$ of some of the research to to go

NOTE Confidence: 0.859945240000001

 $01:06:31.555 \rightarrow 01:06:33.035$ after other stuff prematurely.

NOTE Confidence: 0.82082176

 $01{:}06{:}36{.}100 \dashrightarrow 01{:}06{:}38{.}692$ And then also, there's just such a need

NOTE Confidence: 0.82082176

 $01{:}06{:}38{.}692 \dashrightarrow 01{:}06{:}41{.}718$ to combine the treatments with the with

NOTE Confidence: 0.82082176

 $01{:}06{:}41.718 \dashrightarrow 01{:}06{:}43.562$ the evidence based psychotherapies.

NOTE Confidence: 0.8620196

01:06:46.150 --> 01:06:48.317 Yeah, I don't know if folks in here,

NOTE Confidence: 0.8620196

01:06:48.320 --> 01:06:49.675 me or not. My Internet

- NOTE Confidence: 0.8620196
- $01{:}06{:}49.675 \dashrightarrow 01{:}06{:}51.030$ is going on strike today.
- NOTE Confidence: 0.853784
- $01:06:52.410 \longrightarrow 01:06:54.670$ Hear you with your pictures off. We
- NOTE Confidence: 0.853784
- 01:06:54.670 --> 01:06:56.924 can hear you. Yeah, OK good yeah.
- NOTE Confidence: 0.853784
- 01:06:56.930 --> 01:06:59.546 I mean I couldn't agree more with Michael
- NOTE Confidence: 0.853784
- $01{:}06{:}59{.}546 \dashrightarrow 01{:}07{:}02{.}194$ and that you know a big part of our
- NOTE Confidence: 0.853784
- 01:07:02.194 --> 01:07:04.496 efforts I think should also be just
- NOTE Confidence: 0.853784
- $01:07:04.496 \rightarrow 01:07:06.943$ getting the things that we already know.
- NOTE Confidence: 0.853784
- $01{:}07{:}06{.}943 \dashrightarrow 01{:}07{:}09{.}204$ Work to the people that need them.
- NOTE Confidence: 0.853784
- $01{:}07{:}09{.}210 \dashrightarrow 01{:}07{:}11{.}148$ You know, a good solid psychotherapy
- NOTE Confidence: 0.853784
- $01:07:11.148 \longrightarrow 01:07:12.440$ or reasonable SSRI trial.
- NOTE Confidence: 0.853784
- $01:07:12.440 \longrightarrow 01:07:14.750$ I think in some ways.
- NOTE Confidence: 0.853784
- 01:07:14.750 $\operatorname{-->}$ 01:07:16.913 I've taken for granted that that
's you
- NOTE Confidence: 0.853784
- $01{:}07{:}16{.}913 \dashrightarrow 01{:}07{:}18{.}910$ know that that's readily available.
- NOTE Confidence: 0.853784
- 01:07:18.910 --> 01:07:21.686 I think a lot of times it isn't,
- NOTE Confidence: 0.853784
- $01:07:21.690 \longrightarrow 01:07:24.254$ and so expanding acts.
- NOTE Confidence: 0.853784

- $01:07:24.254 \longrightarrow 01:07:26.130$ To our. The.
- NOTE Confidence: 0.86955242
- $01{:}07{:}30.290 \dashrightarrow 01{:}07{:}33.013$ They make. I think the Internet gods
- NOTE Confidence: 0.86955242
- 01:07:33.013 01:07:35.858 are telling us to wrap this up soon.
- NOTE Confidence: 0.86955242
- 01:07:35.860 --> 01:07:38.628 But I just wanted to thank you for
- NOTE Confidence: 0.86955242
- $01{:}07{:}38.628$ --> $01{:}07{:}41.026$ talking and thank the Internet gods for NOTE Confidence: 0.86955242
- $01{:}07{:}41.026 \dashrightarrow 01{:}07{:}44.160$ for it holding out on us the whole time. NOTE Confidence: 0.86955242
- $01:07:44.160 \longrightarrow 01:07:46.589$ So until now and then we could.
- NOTE Confidence: 0.86955242
- $01{:}07{:}46.590 \dashrightarrow 01{:}07{:}49.515$ We got through the talk and you did an
- NOTE Confidence: 0.86955242
- 01:07:49.515 --> 01:07:51.350 excellent job and Internet connection
- NOTE Confidence: 0.86955242
- $01{:}07{:}51{.}350 \dashrightarrow 01{:}07{:}55{.}350$ just went bad at the end, but.
- NOTE Confidence: 0.86955242
- $01{:}07{:}55{.}350 \dashrightarrow 01{:}07{:}57{.}570$ Excellent job and please feel free
- NOTE Confidence: 0.86955242
- $01:07:57.570 \longrightarrow 01:08:00.012$ to email Jenny with any other OK.