

WEBVTT

NOTE duration:"01:08:00.0120000"

NOTE language:en-us

NOTE Confidence: 0.8097578

00:00:00.000 --> 00:00:02.340 Welcome everyone to today's grand rounds.

NOTE Confidence: 0.8097578

00:00:02.340 --> 00:00:05.790 The the one thing that I want to say

NOTE Confidence: 0.8097578

00:00:05.790 --> 00:00:08.084 is about next week's grand rounds.

NOTE Confidence: 0.8097578

00:00:08.084 --> 00:00:11.143 Then I'll pass it to Michael to say

NOTE Confidence: 0.8097578

00:00:11.143 --> 00:00:13.443 about today's very special grand rounds.

NOTE Confidence: 0.8097578

00:00:13.443 --> 00:00:16.502 So next week I have to say that

NOTE Confidence: 0.8097578

00:00:16.502 --> 00:00:18.422 it's a particularly meaningful and

NOTE Confidence: 0.8097578

00:00:18.422 --> 00:00:20.714 special grand rounds to me personally,

NOTE Confidence: 0.8097578

00:00:20.720 --> 00:00:23.018 and to many people in the

NOTE Confidence: 0.8097578

00:00:23.020 --> 00:00:24.935 child Study Center in that

NOTE Confidence: 0.8097578

00:00:24.935 --> 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 --> 00:00:31.442 Grand Rounds and you'll

NOTE Confidence: 0.8097578

00:00:31.442 --> 00:00:32.810 learn more about them

NOTE Confidence: 0.8726508

00:00:32.810 --> 00:00:34.530 as the announcement comes out,

NOTE Confidence: 0.8726508

00:00:34.530 --> 00:00:37.273 but suffice it to say that I think

NOTE Confidence: 0.8726508

00:00:37.273 --> 00:00:40.017 this will be the first time that we're

NOTE Confidence: 0.8726508

00:00:40.020 --> 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 --> 00:00:45.510 what you're going to call

NOTE Confidence: 0.8726508

00:00:45.510 --> 00:00:48.248 it, but it's going to be a very

NOTE Confidence: 0.8726508

00:00:48.250 --> 00:00:50.600 unique type of grand rounds.

NOTE Confidence: 0.8726508

00:00:50.600 --> 00:00:52.256 Our presenters Susie rule.

NOTE Confidence: 0.8726508

00:00:52.256 --> 00:00:54.732 Sarah Ruhl is a acclaimed playwright.

NOTE Confidence: 0.8726508

00:00:54.732 --> 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 --> 00:01:00.924 as you probably know,

NOTE Confidence: 0.75587773

00:01:00.930 --> 00:01:03.820 is the top drama school, probably in

NOTE Confidence: 0.75587773

00:01:03.820 --> 00:01:05.059 the world. She's

NOTE Confidence: 0.75587773

00:01:05.060 --> 00:01:07.122 an acclaimed writer, an author,
NOTE Confidence: 0.75587773

00:01:07.122 --> 00:01:09.186 and she will speak about
NOTE Confidence: 0.75587773

00:01:09.186 --> 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 --> 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 --> 00:01:26.010 look forward to all of us joining
NOTE Confidence: 0.82413155

00:01:26.010 --> 00:01:27.129 you then. So
NOTE Confidence: 0.82413155

00:01:27.130 --> 00:01:28.990 that's next week. But today,
NOTE Confidence: 0.82413155

00:01:28.990 --> 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 --> 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

NOTE Confidence: 0.82413155

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 --> 00:01:43.870 right because Jennie did the wonderful

NOTE Confidence: 0.82413155

00:01:43.870 --> 00:01:45.354 presentation introduction of Michael

NOTE Confidence: 0.82413155

00:01:45.354 --> 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 --> 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 --> 00:02:04.730 I guess I it's really my pleasure to

NOTE Confidence: 0.82413155

00:02:04.806 --> 00:02:07.137 introduce Jenny Dwyer and I I guess

NOTE Confidence: 0.82413155

00:02:07.137 --> 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

NOTE Confidence: 0.82413155

00:02:17.468 --> 00:02:20.060 as a person and really highlighting
NOTE Confidence: 0.82413155

00:02:20.140 --> 00:02:22.606 the great thing she's done here.
NOTE Confidence: 0.82413155

00:02:22.610 --> 00:02:24.920 So Jennifer Dwyer is currently an
NOTE Confidence: 0.82413155

00:02:24.920 --> 00:02:26.895 assistant professor at the Child
NOTE Confidence: 0.82413155

00:02:26.895 --> 00:02:29.457 Study Center and in the Department of
NOTE Confidence: 0.82413155

00:02:29.457 --> 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 --> 00:02:40.648 better known as the Anteaters,
NOTE Confidence: 0.82413155

00:02:40.650 --> 00:02:42.990 where she studied the development of
NOTE Confidence: 0.82413155

00:02:42.990 --> 00:02:45.410 the dopamine system in adolescence.
NOTE Confidence: 0.82413155

00:02:45.410 --> 00:02:47.706 We were then lucky enough to recruit
NOTE Confidence: 0.82413155

00:02:47.706 --> 00:02:50.658 her to the Sony Integrated program in
NOTE Confidence: 0.82413155

00:02:50.658 --> 00:02:53.028 Child and adult psychiatry research
NOTE Confidence: 0.82413155

00:02:53.028 --> 00:02:55.986 where she transitioned to have to

NOTE Confidence: 0.82413155

00:02:55.986 --> 00:02:57.910 conduct more clinically oriented

NOTE Confidence: 0.82413155

00:02:57.910 --> 00:02:59.801 research that's really informed

NOTE Confidence: 0.82413155

00:02:59.801 --> 00:03:02.136 by her expertise in neuroscience.

NOTE Confidence: 0.82413155

00:03:02.140 --> 00:03:04.804 Former pH D at Irvine she's going to

NOTE Confidence: 0.82413155

00:03:04.804 --> 00:03:06.848 present on novel research examining

NOTE Confidence: 0.82413155

00:03:06.848 --> 00:03:09.446 cada mean as a novel therapeutic

NOTE Confidence: 0.82413155

00:03:09.446 --> 00:03:11.953 for treatment refractory depression

NOTE Confidence: 0.82413155

00:03:11.953 --> 00:03:13.287 in adolescents,

NOTE Confidence: 0.82413155

00:03:13.290 --> 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 --> 00:03:21.894 safety and efficacy,

NOTE Confidence: 0.82413155

00:03:21.894 --> 00:03:24.334 and connect home phenotypes of

NOTE Confidence: 0.82413155

00:03:24.334 --> 00:03:26.558 intravenous Academy that focus on

NOTE Confidence: 0.82413155

00:03:26.558 --> 00:03:28.898 testing the effects of repeated dose.

NOTE Confidence: 0.82413155

00:03:28.900 --> 00:03:31.952 Cada mean as a novel therapeutic in
NOTE Confidence: 0.82413155

00:03:31.952 --> 00:03:34.050 adolescent treatment refractory depression.
NOTE Confidence: 0.82413155

00:03:34.050 --> 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 --> 00:03:38.048 and I guess,
NOTE Confidence: 0.82413155

00:03:38.048 --> 00:03:39.884 the stuff that I'd really like
NOTE Confidence: 0.82413155

00:03:39.884 --> 00:03:41.917 to say about her personally,
NOTE Confidence: 0.82413155

00:03:41.920 --> 00:03:43.972 that I think doesn't come through
NOTE Confidence: 0.82413155

00:03:43.972 --> 00:03:45.340 in the Tri introduction,
NOTE Confidence: 0.82413155

00:03:45.340 --> 00:03:47.716 is just that she's really the epitome of
NOTE Confidence: 0.82413155

00:03:47.716 --> 00:03:49.728 a gifted clinic physician scientist that
NOTE Confidence: 0.82413155

00:03:49.728 --> 00:03:52.859 we try to develop in the soulmate program.
NOTE Confidence: 0.82413155

00:03:52.860 --> 00:03:54.732 That if you were gonna have
NOTE Confidence: 0.82413155

00:03:54.732 --> 00:03:56.620 a mascot for the program,
NOTE Confidence: 0.82413155

00:03:56.620 --> 00:03:58.330 he would be the mascot.
NOTE Confidence: 0.82413155

00:03:58.330 --> 00:04:00.612 Either that or a Unicorn and then

NOTE Confidence: 0.82413155

00:04:00.612 --> 00:04:02.778 hopefully people will get that reference.

NOTE Confidence: 0.82413155

00:04:02.780 --> 00:04:06.320 And and then I guess the other thing to say.

NOTE Confidence: 0.82413155

00:04:06.320 --> 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 --> 00:04:13.178 but I think when we're talking

NOTE Confidence: 0.82413155

00:04:13.178 --> 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 --> 00:04:18.322 to recognize that really.

NOTE Confidence: 0.82413155

00:04:18.330 --> 00:04:21.774 The idea for this study and this

NOTE Confidence: 0.82413155

00:04:21.774 --> 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 --> 00:04:31.085 a as a resident on the CN Ru.

NOTE Confidence: 0.82413155

00:04:31.090 --> 00:04:33.302 Seeing the I guess the efficacy is

NOTE Confidence: 0.82413155

00:04:33.302 --> 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

NOTE Confidence: 0.82413155

00:04:37.899 --> 00:04:40.460 and adults and really having the
NOTE Confidence: 0.82413155

00:04:40.460 --> 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 --> 00:04:46.446 what a great sort of research
NOTE Confidence: 0.82413155

00:04:46.446 --> 00:04:48.278 program that would develop.
NOTE Confidence: 0.82413155

00:04:48.280 --> 00:04:50.908 And I think one of my main roles of
NOTE Confidence: 0.82413155

00:04:50.908 --> 00:04:53.860 of as a mentor was recognizing her
NOTE Confidence: 0.82413155

00:04:53.860 --> 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 --> 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 --> 00:05:05.280 program and the other thing
NOTE Confidence: 0.8658514

00:05:05.345 --> 00:05:07.788 I've learned about doing talks with her
NOTE Confidence: 0.8658514

00:05:07.788 --> 00:05:09.872 and introducing her is that the more
NOTE Confidence: 0.8658514

00:05:09.872 --> 00:05:11.970 time I give her to talk, the better,
NOTE Confidence: 0.8658514

00:05:11.970 --> 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 --> 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 --> 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 --> 00:05:38.669 like a long title I guess.

NOTE Confidence: 0.859449

00:05:38.670 --> 00:05:41.029 So here's one more I'm talking about

NOTE Confidence: 0.859449

00:05:41.029 --> 00:05:42.890 rapid acting treatments for pediatric,

NOTE Confidence: 0.859449

00:05:42.890 --> 00:05:45.295 pediatric depression and suicidality and

NOTE Confidence: 0.859449

00:05:45.295 --> 00:05:48.240 really thinking about where are we now?

NOTE Confidence: 0.859449

00:05:48.240 --> 00:05:50.780 So let's get going.

NOTE Confidence: 0.859449

00:05:50.780 --> 00:05:52.120 In terms of disclosures,

NOTE Confidence: 0.859449

00:05:52.120 --> 00:05:53.795 I don't have any relevant
NOTE Confidence: 0.859449

00:05:53.795 --> 00:05:55.529 conflicts of interest to disclose.
NOTE Confidence: 0.859449

00:05:55.530 --> 00:05:58.946 I've got my research support listed here.
NOTE Confidence: 0.859449

00:05:58.950 --> 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 --> 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 --> 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 --> 00:06:11.150 treatment modalities for
NOTE Confidence: 0.859449

00:06:11.150 --> 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 --> 00:06:19.178 rapidly evolving subfield within
NOTE Confidence: 0.859449

00:06:19.178 --> 00:06:21.473 psychiatry that it was a good idea

NOTE Confidence: 0.859449

00:06:21.473 --> 00:06:23.587 just to give a little overview of

NOTE Confidence: 0.859449

00:06:23.587 --> 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 --> 00:06:27.836 but will focus on cada mean.

NOTE Confidence: 0.859449

00:06:27.840 --> 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 --> 00:06:32.830 so the work that I've done here

NOTE Confidence: 0.859449

00:06:32.830 --> 00:06:34.122 with Michael and Jerry Santa

NOTE Confidence: 0.859449

00:06:34.122 --> 00:06:35.567 Cora are single dose randomized

NOTE Confidence: 0.859449

00:06:35.567 --> 00:06:36.971 controlled trial in adolescent

NOTE Confidence: 0.859449

00:06:36.971 --> 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 --> 00:06:42.392 amount of the time talking about

NOTE Confidence: 0.859449

00:06:42.392 --> 00:06:44.372 the gaps in our understanding and

NOTE Confidence: 0.859449

00:06:44.431 --> 00:06:46.135 as you'll see there are many.

NOTE Confidence: 0.859449

00:06:46.140 --> 00:06:48.372 There is a lot of work to do
NOTE Confidence: 0.859449

00:06:48.372 --> 00:06:50.297 and enough work to go around,
NOTE Confidence: 0.859449

00:06:50.300 --> 00:06:52.772 so I'm excited to sort of talk that
NOTE Confidence: 0.859449

00:06:52.772 --> 00:06:54.880 through with the broader community.
NOTE Confidence: 0.859449

00:06:54.880 --> 00:06:56.658 And then I'll talk about a couple
NOTE Confidence: 0.859449

00:06:56.658 --> 00:06:58.308 ways that my lab is starting
NOTE Confidence: 0.859449

00:06:58.308 --> 00:06:59.964 to try to address those gaps,
NOTE Confidence: 0.859449

00:06:59.970 --> 00:07:02.581 and then hopefully there will be a
NOTE Confidence: 0.859449

00:07:02.581 --> 00:07:05.340 little bit of time for discussion.
NOTE Confidence: 0.859449

00:07:05.340 --> 00:07:07.460 So I'm interested in adolescence.
NOTE Confidence: 0.859449

00:07:07.460 --> 00:07:09.350 I've been interested in adolescents
NOTE Confidence: 0.859449

00:07:09.350 --> 00:07:12.110 since my PhD work and adolescence.
NOTE Confidence: 0.859449

00:07:12.110 --> 00:07:13.802 As this group knows,
NOTE Confidence: 0.859449

00:07:13.802 --> 00:07:15.917 is a critical developmental period,
NOTE Confidence: 0.859449

00:07:15.920 --> 00:07:18.030 it's the period of transition
NOTE Confidence: 0.859449

00:07:18.030 --> 00:07:19.718 between childhood and adulthood,

NOTE Confidence: 0.859449
00:07:19.720 --> 00:07:21.756 so conservatively defined between
NOTE Confidence: 0.859449
00:07:21.756 --> 00:07:24.810 12 and 18 years in humans.
NOTE Confidence: 0.859449
00:07:24.810 --> 00:07:26.854 And there is a unique set of
NOTE Confidence: 0.859449
00:07:26.854 --> 00:07:28.341 behaviors that are conserved
NOTE Confidence: 0.859449
00:07:28.341 --> 00:07:30.529 actually across mammalian species,
NOTE Confidence: 0.859449
00:07:30.530 --> 00:07:32.495 and these are familiar features
NOTE Confidence: 0.859449
00:07:32.495 --> 00:07:34.460 to folks that have adolescents
NOTE Confidence: 0.859449
00:07:34.527 --> 00:07:36.615 at home or work with adolescents,
NOTE Confidence: 0.859449
00:07:36.620 --> 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 --> 00:07:44.660 and spending more time with their peers.
NOTE Confidence: 0.859449
00:07:44.660 --> 00:07:47.089 But adolescence is also a critical time
NOTE Confidence: 0.859449
00:07:47.089 --> 00:07:49.700 in terms of psychiatric disorders.
NOTE Confidence: 0.859449
00:07:49.700 --> 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,
NOTE Confidence: 0.859449

00:07:54.740 --> 00:07:57.644 and several of the neuro psychiatric
NOTE Confidence: 0.859449

00:07:57.644 --> 00:08:00.840 disorders that we see that persist
NOTE Confidence: 0.859449

00:08:00.840 --> 00:08:02.010 into adulthood.
NOTE Confidence: 0.859449

00:08:02.010 --> 00:08:04.986 And I think that these unique.
NOTE Confidence: 0.859449

00:08:04.990 --> 00:08:07.090 Both the strengths and vulnerabilities
NOTE Confidence: 0.859449

00:08:07.090 --> 00:08:09.619 are really mediated by changes in
NOTE Confidence: 0.859449

00:08:09.619 --> 00:08:10.757 the structural, neurochemical,
NOTE Confidence: 0.859449

00:08:10.757 --> 00:08:12.792 and functional organization of the
NOTE Confidence: 0.859449

00:08:12.792 --> 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 --> 00:08:20.500 more on adolescent depression.
NOTE Confidence: 0.86093587

00:08:20.500 --> 00:08:22.486 And as all of you know,
NOTE Confidence: 0.86093587

00:08:22.490 --> 00:08:24.814 this is a really significant health problem.
NOTE Confidence: 0.86093587

00:08:24.820 --> 00:08:27.682 I think that is kind of come out and
NOTE Confidence: 0.86093587

00:08:27.682 --> 00:08:30.454 smacked us in the face with the pandemic,
NOTE Confidence: 0.86093587

00:08:30.460 --> 00:08:32.488 even though it was already a

NOTE Confidence: 0.86093587

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

NOTE Confidence: 0.86093587

00:08:33.902 --> 00:08:36.452 nearly one in five adolescents will

NOTE Confidence: 0.86093587

00:08:36.452 --> 00:08:38.152 experience major depressive disorder.

NOTE Confidence: 0.86093587

00:08:38.160 --> 00:08:40.668 Suicide is now the second leading

NOTE Confidence: 0.86093587

00:08:40.668 --> 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 --> 00:08:48.740 adolescents with depression failed

NOTE Confidence: 0.86093587

00:08:48.740 --> 00:08:51.487 to respond to initial treatment with

NOTE Confidence: 0.86093587

00:08:51.487 --> 00:08:53.707 selective serotonin 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 --> 00:08:59.588 the tortilla trial and that showed us

NOTE Confidence: 0.86093587

00:08:59.588 --> 00:09:02.530 that of that SSRI resistant population,

NOTE Confidence: 0.86093587

00:09:02.530 --> 00:09:05.075 nearly half don't receive relief

NOTE Confidence: 0.86093587

00:09:05.075 --> 00:09:07.111 after either switching medications

NOTE Confidence: 0.86093587

00:09:07.111 --> 00:09:09.219 or adding psychotherapy.

NOTE Confidence: 0.86093587

00:09:09.220 --> 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 --> 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 --> 00:09:21.700 which finished over a decade
NOTE Confidence: 0.86093587

00:09:21.700 --> 00:09:23.260 ago at this point.
NOTE Confidence: 0.86093587

00:09:23.260 --> 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 --> 00:09:32.125 I also wanted to bring up some
NOTE Confidence: 0.86093587

00:09:32.125 --> 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 --> 00:09:40.641 the CDC and this was looking
NOTE Confidence: 0.86093587

00:09:40.641 --> 00:09:42.939 at high schoolers in the US.
NOTE Confidence: 0.86093587

00:09:42.940 --> 00:09:45.934 She reported that 17% had reported

NOTE Confidence: 0.86093587

00:09:45.934 --> 00:09:47.930 that they considered attempting

NOTE Confidence: 0.86093587

00:09:48.009 --> 00:09:49.899 suicide in the last year.

NOTE Confidence: 0.86093587

00:09:49.900 --> 00:09:54.076 14% had a suicide plan in the prior year,

NOTE Confidence: 0.86093587

00:09:54.080 --> 00:09:56.395 8% reported an actual suicide

NOTE Confidence: 0.86093587

00:09:56.395 --> 00:09:58.247 attempt in some shape,

NOTE Confidence: 0.86093587

00:09:58.250 --> 00:09:59.645 way or form,

NOTE Confidence: 0.86093587

00:09:59.645 --> 00:10:03.708 and then 3% made a suicide attempt

NOTE Confidence: 0.86093587

00:10:03.708 --> 00:10:06.376 that required medical attention.

NOTE Confidence: 0.86093587

00:10:06.380 --> 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 --> 00:10:15.307 and that comes out to about 5500 per year.

NOTE Confidence: 0.86093587

00:10:15.310 --> 00:10:17.120 I'm somebody that really needs

NOTE Confidence: 0.86093587

00:10:17.120 --> 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 --> 00:10:25.494 which is just down the street from us.

NOTE Confidence: 0.86093587

00:10:25.500 --> 00:10:28.048 Many of our patients attend school here.

NOTE Confidence: 0.86093587

00:10:28.050 --> 00:10:29.618 This is 1100 students,

NOTE Confidence: 0.86093587

00:10:29.618 --> 00:10:32.533 and so this number is the equivalent

NOTE Confidence: 0.86093587

00:10:32.533 --> 00:10:35.419 of losing 5 handed high schools

NOTE Confidence: 0.86093587

00:10:35.419 --> 00:10:37.360 to suicide every year.

NOTE Confidence: 0.86093587

00:10:37.360 --> 00:10:39.400 And it's just a totally unacceptable

NOTE Confidence: 0.86093587

00:10:39.400 --> 00:10:43.878 fact to me. We have so much work to do.

NOTE Confidence: 0.86093587

00:10:43.880 --> 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 --> 00:10:52.539 kind of get your minds in the right

NOTE Confidence: 0.88790834

00:10:52.539 --> 00:10:55.080 place as we start to think about.

NOTE Confidence: 0.88790834

00:10:55.080 --> 00:10:56.380 Some of the data here,

NOTE Confidence: 0.88790834

00:10:56.380 --> 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 --> 00:11:01.319 who was depressed with me,

NOTE Confidence: 0.88790834

00:11:01.320 --> 00:11:02.343 diagnosed with depression

NOTE Confidence: 0.88790834

00:11:02.343 --> 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 --> 00:11:07.374 medications and talk therapies,

NOTE Confidence: 0.88790834

00:11:07.380 --> 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 hospitalization's

NOTE Confidence: 0.88790834

00:11:11.370 --> 00:11:14.166 over a single year and one of

NOTE Confidence: 0.88790834

00:11:14.166 --> 00:11:15.978 them was for over four months.

NOTE Confidence: 0.88790834

00:11:15.980 --> 00:11:17.464 Her depression and suicidal

NOTE Confidence: 0.88790834

00:11:17.464 --> 00:11:19.690 ideations and she had made plans

NOTE Confidence: 0.88790834

00:11:19.761 --> 00:11:21.973 to hang herself with the belts and

NOTE Confidence: 0.88790834

00:11:21.973 --> 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 --> 00:11:28.964 supervised for any amount of time.

NOTE Confidence: 0.88790834

00:11:28.964 --> 00:11:31.169 And none of the hospitalizations,

NOTE Confidence: 0.88790834

00:11:31.170 --> 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 --> 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 --> 00:11:46.623 So now I'm going to shift towards
NOTE Confidence: 0.88790834

00:11:46.623 --> 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 --> 00:11:52.736 If we were all in the same room,
NOTE Confidence: 0.88790834

00:11:52.740 --> 00:11:54.780 I would ask people to raise their hands
NOTE Confidence: 0.88790834

00:11:54.780 --> 00:11:57.190 on how many people have heard this term.
NOTE Confidence: 0.88790834

00:11:57.190 --> 00:11:59.332 This was a term that was actually
NOTE Confidence: 0.88790834

00:11:59.332 --> 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 --> 00:12:06.926 And I think part of it was sort of
NOTE Confidence: 0.88790834

00:12:06.926 --> 00:12:10.039 medical specialty envy a little bit.
NOTE Confidence: 0.88790834

00:12:10.040 --> 00:12:11.816 So cardiology has interventional

NOTE Confidence: 0.88790834
00:12:11.816 --> 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 --> 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 --> 00:12:20.750 And what that encompass is really
NOTE Confidence: 0.88790834
00:12:20.750 --> 00:12:21.950 neuro modulation techniques,
NOTE Confidence: 0.88790834
00:12:21.950 --> 00:12:24.350 and I'll show some of those.
NOTE Confidence: 0.88790834
00:12:24.350 --> 00:12:25.358 Some are old,
NOTE Confidence: 0.88790834
00:12:25.358 --> 00:12:27.374 some are new and then also
NOTE Confidence: 0.88790834
00:12:27.374 --> 00:12:29.201 encompassing these rapid acting
NOTE Confidence: 0.88790834
00:12:29.201 --> 00:12:31.101 pharmacotherapies that typically are
NOTE Confidence: 0.88790834
00:12:31.101 --> 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 --> 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 --> 00:12:46.595 but can be a very effective treatment.
NOTE Confidence: 0.88790834

00:12:46.600 --> 00:12:48.644 Repetitive transcranial magnetic stimulation,
NOTE Confidence: 0.88790834

00:12:48.644 --> 00:12:52.087 which is a newer treatment that was
NOTE Confidence: 0.88790834

00:12:52.087 --> 00:12:54.503 sort of inspired by ECT in some ways,
NOTE Confidence: 0.88790834

00:12:54.510 --> 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 --> 00:13:03.196 nerve stimulation would also
NOTE Confidence: 0.88790834

00:13:03.196 --> 00:13:05.768 count under this definition.
NOTE Confidence: 0.88790834

00:13:05.770 --> 00:13:07.924 And then when we're thinking about
NOTE Confidence: 0.88790834

00:13:07.924 --> 00:13:10.020 the rapid acting pharmacologic therapies,
NOTE Confidence: 0.88790834

00:13:10.020 --> 00:13:11.875 we're talking about things like
NOTE Confidence: 0.88790834

00:13:11.875 --> 00:13:14.260 Esketamine or ketamine infusion therapy.
NOTE Confidence: 0.88790834

00:13:14.260 --> 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 --> 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 --> 00:13:23.526 which was recently FDA approved
NOTE Confidence: 0.88790834
00:13:23.526 --> 00:13:25.070 to treat postpartum depression.
NOTE Confidence: 0.88790834
00:13:25.070 --> 00:13:27.198 So these are the types of treatments that
NOTE Confidence: 0.88790834
00:13:27.198 --> 00:13:28.734 fall under interventional psychiatry
NOTE Confidence: 0.88790834
00:13:28.734 --> 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 --> 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 --> 00:13:48.832 that's traditionally categorized
NOTE Confidence: 0.88790834
00:13:48.832 --> 00:13:50.708 as a dissociative anesthetic.
NOTE Confidence: 0.88790834
00:13:50.710 --> 00:13:53.056 It's a non competitive MDA or
NOTE Confidence: 0.88790834

00:13:53.056 --> 00:13:54.229 glutamate receptor antagonist.
NOTE Confidence: 0.88790834

00:13:54.230 --> 00:13:56.588 You might remember it from anesthesia,
NOTE Confidence: 0.88790834

00:13:56.590 --> 00:13:58.042 rotations in medical school,
NOTE Confidence: 0.88790834

00:13:58.042 --> 00:14:00.754 so this is given at higher doses
NOTE Confidence: 0.88790834

00:14:00.754 --> 00:14:01.678 and anesthesia.
NOTE Confidence: 0.88790834

00:14:01.680 --> 00:14:04.970 So like one all the way up to four and
NOTE Confidence: 0.83009076

00:14:05.063 --> 00:14:07.618 a half milligrams per kilogram
NOTE Confidence: 0.83009076

00:14:07.618 --> 00:14:10.173 given quickly over a minute.
NOTE Confidence: 0.83009076

00:14:10.180 --> 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 --> 00:14:15.984 which is at much slower and slower doses.
NOTE Confidence: 0.83009076

00:14:15.990 --> 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 --> 00:14:22.239 over 40 minutes.
NOTE Confidence: 0.83009076

00:14:22.240 --> 00:14:24.620 When we think about cada means acute
NOTE Confidence: 0.83009076

00:14:24.620 --> 00:14:26.669 side effects and safety profile,

NOTE Confidence: 0.83009076
00:14:26.670 --> 00:14:28.884 these are some of the things
NOTE Confidence: 0.83009076
00:14:28.884 --> 00:14:30.360 we think about again.
NOTE Confidence: 0.83009076
00:14:30.360 --> 00:14:32.922 Sort of harkening back to our anesthesia
NOTE Confidence: 0.83009076
00:14:32.922 --> 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 --> 00:14:39.216 Those are dose dependent.
NOTE Confidence: 0.83009076
00:14:39.216 --> 00:14:41.430 It can increase the respiratory rate,
NOTE Confidence: 0.83009076
00:14:41.430 --> 00:14:43.270 but it really high doses.
NOTE Confidence: 0.83009076
00:14:43.270 --> 00:14:45.120 It could cause respiratory depression.
NOTE Confidence: 0.83009076
00:14:45.120 --> 00:14:48.585 It can cause nausea dizziness or diplopia.
NOTE Confidence: 0.83009076
00:14:48.590 --> 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 --> 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 --> 00:14:57.356 or derealization,
NOTE Confidence: 0.83009076

00:14:57.356 --> 00:15:02.390 so has kind of a unique side effect profile.

NOTE Confidence: 0.84849596

00:15:04.520 --> 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 --> 00:15:10.105 and we're willing to tolerate some of

NOTE Confidence: 0.84849596

00:15:10.105 --> 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 --> 00:15:15.109 almost 20 years ago now,

NOTE Confidence: 0.84849596

00:15:15.110 --> 00:15:16.765 showing that ketamin rapidly improves

NOTE Confidence: 0.84849596

00:15:16.765 --> 00:15:18.089 depressive symptoms in adults.

NOTE Confidence: 0.84849596

00:15:18.090 --> 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 --> 00:15:24.517 and you can see that there is a reduction

NOTE Confidence: 0.84849596

00:15:24.517 --> 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 --> 00:15:32.277 So when you think about that compared

NOTE Confidence: 0.84849596

00:15:32.277 --> 00:15:33.240 to traditional antidepressants,

NOTE Confidence: 0.84849596

00:15:33.240 --> 00:15:35.592 which can take up to 8 weeks to

NOTE Confidence: 0.84849596

00:15:35.592 --> 00:15:36.770 improve depressive symptoms,

NOTE Confidence: 0.84849596

00:15:36.770 --> 00:15:39.968 this is a really big deal.

NOTE Confidence: 0.84849596

00:15:39.970 --> 00:15:42.518 The inset is looking at the side

NOTE Confidence: 0.84849596

00:15:42.518 --> 00:15:44.342 effect timecourse just to show

NOTE Confidence: 0.84849596

00:15:44.342 --> 00:15:45.997 that the side effects dissipate

NOTE Confidence: 0.84849596

00:15:45.997 --> 00:15:48.336 and have a separate time course

NOTE Confidence: 0.84849596

00:15:48.336 --> 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 --> 00:15:59.725 mean in adults from this data from Sam

NOTE Confidence: 0.83453244

00:15:59.725 --> 00:16:02.824 Wilkinson here at Yale showing that Cada

NOTE Confidence: 0.83453244

00:16:02.824 --> 00:16:05.764 mean is also anti suicidal in adults.

NOTE Confidence: 0.83453244

00:16:05.770 --> 00:16:08.380 So even after controlling for its

NOTE Confidence: 0.83453244

00:16:08.380 --> 00:16:11.053 antidepressant effects, there is a

NOTE Confidence: 0.83453244

00:16:11.053 --> 00:16:14.058 distinct rapid anti suicide effect.

NOTE Confidence: 0.83453244

00:16:14.060 --> 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 --> 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 --> 00:16:30.056 suicidal thinking and so a compound
NOTE Confidence: 0.83453244

00:16:30.056 --> 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 --> 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 --> 00:16:48.240 so thinking back to chemistry class,
NOTE Confidence: 0.7869444

00:16:48.240 --> 00:16:50.977 each mean itself as a receiving mixture.
NOTE Confidence: 0.7869444

00:16:50.980 --> 00:16:52.940 It has a left hand,

NOTE Confidence: 0.7869444

00:16:52.940 --> 00:16:56.117 the S an A right hand the R and

NOTE Confidence: 0.7869444

00:16:56.117 --> 00:16:58.616 esketamine is just the left sided

NOTE Confidence: 0.7869444

00:16:58.616 --> 00:17:01.180 enantiomer of this of cada mean.

NOTE Confidence: 0.7869444

00:17:01.180 --> 00:17:03.686 This was the compound that was developed

NOTE Confidence: 0.7869444

00:17:03.686 --> 00:17:06.268 by Janssen and recently FDA approved.

NOTE Confidence: 0.7869444

00:17:06.270 --> 00:17:09.310 The reason that they chose S cada mean

NOTE Confidence: 0.7869444

00:17:09.310 --> 00:17:13.278 is that it has a higher affinity for the

NOTE Confidence: 0.7869444

00:17:13.278 --> 00:17:16.108 MDA receptor compared to our CADA mean.

NOTE Confidence: 0.7869444

00:17:16.110 --> 00:17:18.516 And they thought that there might

NOTE Confidence: 0.7869444

00:17:18.516 --> 00:17:21.164 be some potential for a lower

NOTE Confidence: 0.7869444

00:17:21.164 --> 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 --> 00:17:27.862 This was a big deal when this

NOTE Confidence: 0.7869444

00:17:27.862 --> 00:17:30.522 was FDA approved in adults about

NOTE Confidence: 0.7869444

00:17:30.522 --> 00:17:33.228 probably more than a year ago.

NOTE Confidence: 0.7869444

00:17:33.230 --> 00:17:34.232 At this point,
NOTE Confidence: 0.7869444

00:17:34.232 --> 00:17:36.570 it's marketed as bravado and the FDA
NOTE Confidence: 0.7869444

00:17:36.643 --> 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 --> 00:17:45.760 and this is an intranasal
NOTE Confidence: 0.7869444

00:17:45.760 --> 00:17:47.920 delivery versus an IV infusion,
NOTE Confidence: 0.7869444

00:17:47.920 --> 00:17:50.600 and the pediatric studies
NOTE Confidence: 0.7869444

00:17:50.600 --> 00:17:53.280 for Esketamine are ongoing.
NOTE Confidence: 0.7869444

00:17:53.280 --> 00:17:55.646 I'll talk briefly about mechanism of action,
NOTE Confidence: 0.7869444

00:17:55.650 --> 00:17:57.846 so people were sort of excited
NOTE Confidence: 0.7869444

00:17:57.846 --> 00:17:59.989 about each mean because we've had
NOTE Confidence: 0.7869444

00:17:59.989 --> 00:18:02.429 a long line of SSRI's and SNRIs,
NOTE Confidence: 0.7869444

00:18:02.430 --> 00:18:04.125 and really focusing on the
NOTE Confidence: 0.7869444

00:18:04.125 --> 00:18:05.820 serotonin system and its cousins,
NOTE Confidence: 0.7869444

00:18:05.820 --> 00:18:08.460 and so cademy really has this

NOTE Confidence: 0.7869444
00:18:08.460 --> 00:18:10.220 distinct mechanism of action.
NOTE Confidence: 0.7869444
00:18:10.220 --> 00:18:12.224 Highlight to show this cartoon just
NOTE Confidence: 0.7869444
00:18:12.224 --> 00:18:14.004 to remind people that Cyantific
NOTE Confidence: 0.7869444
00:18:14.004 --> 00:18:16.266 cartoons are getting a little much.
NOTE Confidence: 0.7869444
00:18:16.270 --> 00:18:18.406 It's hard to really follow this.
NOTE Confidence: 0.7869444
00:18:18.410 --> 00:18:20.540 I think for a clinical audience.
NOTE Confidence: 0.7869444
00:18:20.540 --> 00:18:22.913 And So what are the what are
NOTE Confidence: 0.7869444
00:18:22.913 --> 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 --> 00:18:27.762 the idea is that in depression we
NOTE Confidence: 0.7869444
00:18:27.762 --> 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 --> 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 --> 00:18:38.178 and if it doesn't have enough
NOTE Confidence: 0.7869444

00:18:38.178 --> 00:18:40.160 glutamate or receptors and then

NOTE Confidence: 0.7869444

00:18:40.160 --> 00:18:42.284 you see this nice healthy synapse

NOTE Confidence: 0.7869444

00:18:42.284 --> 00:18:44.110 on the right hand side.

NOTE Confidence: 0.7869444

00:18:44.110 --> 00:18:47.260 And the idea is that cada mean

NOTE Confidence: 0.7869444

00:18:47.260 --> 00:18:49.289 inhibits these inhibitory interneurons

NOTE Confidence: 0.7869444

00:18:49.289 --> 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 --> 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 --> 00:19:06.919 think about it in words.

NOTE Confidence: 0.7869444

00:19:06.920 --> 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 --> 00:19:12.506 It promotes synaptic plasticity.

NOTE Confidence: 0.7869444

00:19:12.506 --> 00:19:15.478 The key sites of action are the

NOTE Confidence: 0.7869444

00:19:15.478 --> 00:19:17.838 prefrontal cortex and the hippocampus.

NOTE Confidence: 0.7869444

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

NOTE Confidence: 0.7869444

00:19:19.464 --> 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 NMDA receptors

NOTE Confidence: 0.7869444

00:19:26.547 --> 00:19:29.717 on inhibitory interneurons are blocked,

NOTE Confidence: 0.7869444

00:19:29.720 --> 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 --> 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 --> 00:19:39.035 hypothesis that some of each

NOTE Confidence: 0.7869444

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

NOTE Confidence: 0.7869444

00:19:41.120 --> 00:19:44.270 nor each mean may sort of bypass

NOTE Confidence: 0.7869444

00:19:44.270 --> 00:19:46.819 an NMDA receptors in tirolian,

NOTE Confidence: 0.7869444

00:19:46.820 --> 00:19:49.100 directly activate AMPA receptors.

NOTE Confidence: 0.7869444

00:19:49.100 --> 00:19:50.240 Either way,

NOTE Confidence: 0.7869444

00:19:50.240 --> 00:19:52.265 both hypotheses are that you
NOTE Confidence: 0.7869444

00:19:52.265 --> 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 --> 00:19:56.724 inducing.
NOTE Confidence: 0.7869444

00:19:56.724 --> 00:19:59.956 If you're interested in more stuff like this,
NOTE Confidence: 0.7869444

00:19:59.960 --> 00:20:03.432 put in a plug for the national
NOTE Confidence: 0.7869444

00:20:03.432 --> 00:20:04.920 Neuroscience Curriculum initiative
NOTE Confidence: 0.7869444

00:20:05.003 --> 00:20:07.691 where we have a 10 minute video that
NOTE Confidence: 0.7869444

00:20:07.691 --> 00:20:10.638 sort of goes into this in a little
NOTE Confidence: 0.7869444

00:20:10.638 --> 00:20:12.900 more depth called sad synapses.
NOTE Confidence: 0.7869444

00:20:12.900 --> 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 --> 00:20:19.764 pediatric pharmacology, what are the
NOTE Confidence: 0.83870673

00:20:19.764 --> 00:20:22.520 things that we need to keep in mind?
NOTE Confidence: 0.83870673

00:20:22.520 --> 00:20:24.410 So I said at the beginning that
NOTE Confidence: 0.83870673

00:20:24.410 --> 00:20:26.577 the brain is going through rapid

NOTE Confidence: 0.83870673

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

NOTE Confidence: 0.83870673

00:20:28.300 --> 00:20:30.304 and the prefrontal cortex is a

NOTE Confidence: 0.83870673

00:20:30.304 --> 00:20:32.720 place of big action in that regard.

NOTE Confidence: 0.83870673

00:20:32.720 --> 00:20:34.764 So the very place that we think

NOTE Confidence: 0.83870673

00:20:34.764 --> 00:20:36.883 Cada mean is working is undergoing

NOTE Confidence: 0.83870673

00:20:36.883 --> 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 --> 00:20:41.220 of glutamatergic synapses.

NOTE Confidence: 0.83870673

00:20:41.220 --> 00:20:42.580 There's a changing relative

NOTE Confidence: 0.83870673

00:20:42.580 --> 00:20:43.940 profile of these interneurons,

NOTE Confidence: 0.83870673

00:20:43.940 --> 00:20:45.705 the very places that were

NOTE Confidence: 0.83870673

00:20:45.705 --> 00:20:47.117 hypothesising that cada mean.

NOTE Confidence: 0.83870673

00:20:47.120 --> 00:20:50.030 Working and even changes in the

NOTE Confidence: 0.83870673

00:20:50.030 --> 00:20:51.485 receptor subunit composition

NOTE Confidence: 0.83870673

00:20:51.485 --> 00:20:54.068 across some of these key receptors.

NOTE Confidence: 0.83870673

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 --> 00:20:58.944 or really in many cases that just
NOTE Confidence: 0.83870673

00:20:58.944 --> 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 --> 00:21:07.310 or that it even will work in the same way.
NOTE Confidence: 0.83870673

00:21:07.310 --> 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 --> 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 --> 00:21:14.859 in adolescent rats.
NOTE Confidence: 0.83870673

00:21:14.860 --> 00:21:16.967 So we've got that going for us.
NOTE Confidence: 0.83870673

00:21:16.970 --> 00:21:19.082 And then we also know that Keta mean
NOTE Confidence: 0.83870673

00:21:19.082 --> 00:21:21.352 has been used safely as an acute
NOTE Confidence: 0.83870673

00:21:21.352 --> 00:21:23.620 anesthetic in Pediatrics for over 50 years,
NOTE Confidence: 0.83870673

00:21:23.620 --> 00:21:26.028 so we have enough data to go on.
NOTE Confidence: 0.83870673

00:21:26.030 --> 00:21:28.165 I think that this is at least

NOTE Confidence: 0.83870673

00:21:28.165 --> 00:21:29.659 a reasonable thing to test,

NOTE Confidence: 0.83870673

00:21:29.660 --> 00:21:31.466 and so that's what we did.

NOTE Confidence: 0.83870673

00:21:31.470 --> 00:21:33.350 This was part of the work I did

NOTE Confidence: 0.83870673

00:21:33.350 --> 00:21:35.399 is a soulmate resident here.

NOTE Confidence: 0.83870673

00:21:35.400 --> 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 adolescent depression

NOTE Confidence: 0.83870673

00:21:39.086 --> 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 --> 00:21:45.323 and effective in adolescents with

NOTE Confidence: 0.83870673

00:21:45.323 --> 00:21:46.559 treatment resistant depression?

NOTE Confidence: 0.83870673

00:21:46.560 --> 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 --> 00:21:54.106 as well as the grant from 8 cap

NOTE Confidence: 0.83870673

00:21:54.106 --> 00:21:56.440 in the Flash for Research Fund.

NOTE Confidence: 0.83870673

00:21:56.440 --> 00:21:57.232 In this paper,

NOTE Confidence: 0.83870673

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 --> 00:22:02.577 so I'll tell you about the folks
NOTE Confidence: 0.83870673

00:22:02.577 --> 00:22:04.348 that we included in this study,
NOTE Confidence: 0.83870673

00:22:04.350 --> 00:22:06.738 so we were looking for adolescents.
NOTE Confidence: 0.83870673

00:22:06.740 --> 00:22:09.560 We were looking for depressed adolescents.
NOTE Confidence: 0.83870673

00:22:09.560 --> 00:22:11.910 We were looking for significantly
NOTE Confidence: 0.83870673

00:22:11.910 --> 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 --> 00:22:18.025 scale score of over 40.
NOTE Confidence: 0.83870673

00:22:18.030 --> 00:22:19.950 We were looking for treatment resistance
NOTE Confidence: 0.83870673

00:22:19.950 --> 00:22:22.201 and here we define that as having
NOTE Confidence: 0.83870673

00:22:22.201 --> 00:22:24.025 failed to achieve remission with at
NOTE Confidence: 0.83870673

00:22:24.025 --> 00:22:26.070 least one prior antidepressant trial.
NOTE Confidence: 0.83870673

00:22:26.070 --> 00:22:27.402 Although as you'll see,
NOTE Confidence: 0.83870673

00:22:27.402 --> 00:22:30.428 our sample for the most part had tried many,
NOTE Confidence: 0.83870673

00:22:30.430 --> 00:22:34.462 many medications by the time they came to us.

NOTE Confidence: 0.83870673

00:22:34.470 --> 00:22:36.619 And this was a cada mean in

NOTE Confidence: 0.83870673

00:22:36.619 --> 00:22:38.240 addition to kind of study.

NOTE Confidence: 0.83870673

00:22:38.240 --> 00:22:40.494 So folks needed to stay stable on

NOTE Confidence: 0.83870673

00:22:40.494 --> 00:22:41.808 their psychiatric medications for

NOTE Confidence: 0.83870673

00:22:41.808 --> 00:22:43.258 the month prior to enrollment,

NOTE Confidence: 0.83870673

00:22:43.260 --> 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 --> 00:22:48.906 So it's really cada mean in addition to.

NOTE Confidence: 0.83870673

00:22:48.910 --> 00:22:52.018 The regimen you're on that's not working.

NOTE Confidence: 0.83870673

00:22:52.020 --> 00:22:54.348 The folks that we did not

NOTE Confidence: 0.83870673

00:22:54.348 --> 00:22:55.900 include in this study,

NOTE Confidence: 0.83870673

00:22:55.900 --> 00:22:58.228 so this was an outpatient study.

NOTE Confidence: 0.83870673

00:22:58.230 --> 00:22:59.925 We excluded folks that were

NOTE Confidence: 0.83870673

00:22:59.925 --> 00:23:02.116 inpatient at the time or had

NOTE Confidence: 0.83870673

00:23:02.116 --> 00:23:03.836 active suicidal ideations that

NOTE Confidence: 0.83870673

00:23:03.836 --> 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 --> 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 --> 00:23:14.907 ideations in this initial study,
NOTE Confidence: 0.8662833

00:23:14.910 --> 00:23:17.479 we excluded folks that had a history
NOTE Confidence: 0.8662833

00:23:17.479 --> 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 --> 00:23:26.600 Pregnancy or anyone that was unable
NOTE Confidence: 0.8662833

00:23:26.600 --> 00:23:29.320 to provide written informed consent.
NOTE Confidence: 0.8662833

00:23:29.320 --> 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 placebo rates are pretty high
NOTE Confidence: 0.8662833

00:23:34.196 --> 00:23:36.360 in depression trials across the board,
NOTE Confidence: 0.8662833

00:23:36.360 --> 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,

NOTE Confidence: 0.8662833

00:23:39.040 --> 00:23:42.046 and we can talk about the reasons for that.

NOTE Confidence: 0.8662833

00:23:42.050 --> 00:23:44.330 If you all are interested.

NOTE Confidence: 0.8662833

00:23:44.330 --> 00:23:46.250 But we thought it was really

NOTE Confidence: 0.8662833

00:23:46.250 --> 00:23:48.341 important to have a control and

NOTE Confidence: 0.8662833

00:23:48.341 --> 00:23:50.196 to have a rigorous control,

NOTE Confidence: 0.8662833

00:23:50.200 --> 00:23:52.132 and so we used midazolam as

NOTE Confidence: 0.8662833

00:23:52.132 --> 00:23:53.990 what's called an active control.

NOTE Confidence: 0.8662833

00:23:53.990 --> 00:23:56.405 So mad as Liam is a benzodiazepine,

NOTE Confidence: 0.8662833

00:23:56.410 --> 00:23:58.408 it has some acute effects that

NOTE Confidence: 0.8662833

00:23:58.408 --> 00:24:00.862 we think might mimic some of the

NOTE Confidence: 0.8662833

00:24:00.862 --> 00:24:02.617 acute effects that Ketamin has,

NOTE Confidence: 0.8662833

00:24:02.620 --> 00:24:06.589 and it has a similar pharmacokinetic profile.

NOTE Confidence: 0.8662833

00:24:06.590 --> 00:24:08.250 Additional measures we took to

NOTE Confidence: 0.8662833

00:24:08.250 --> 00:24:09.910 protect the blind included having

NOTE Confidence: 0.8662833

00:24:09.962 --> 00:24:11.827 separate safety and efficacy raters,
NOTE Confidence: 0.8662833

00:24:11.830 --> 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 --> 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 --> 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 --> 00:24:27.917 at the hospital research unit.
NOTE Confidence: 0.8662833

00:24:27.920 --> 00:24:30.070 This is the study design,
NOTE Confidence: 0.8662833

00:24:30.070 --> 00:24:32.210 so this was a randomized,
NOTE Confidence: 0.8662833

00:24:32.210 --> 00:24:34.218 medazzaland controlled crossover trial.
NOTE Confidence: 0.8662833

00:24:34.218 --> 00:24:37.969 It was a four week study so infusion
NOTE Confidence: 0.8662833

00:24:37.969 --> 00:24:41.563 days were on day zero and a 14 on those
NOTE Confidence: 0.8662833

00:24:41.563 --> 00:24:44.197 days are participants got an infusion
NOTE Confidence: 0.8662833

00:24:44.197 --> 00:24:46.796 of either khetani Norma Dazzle lamb.
NOTE Confidence: 0.8662833

00:24:46.796 --> 00:24:49.820 These are sort of standard weight based

NOTE Confidence: 0.8662833

00:24:49.820 --> 00:24:52.466 doses from the adult literature so CATA

NOTE Confidence: 0.8662833

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

NOTE Confidence: 0.8662833

00:24:55.159 --> 00:24:58.382 over 40 minutes and medazaland at 0.04.

NOTE Confidence: 0.8662833

00:24:58.382 --> 00:25:00.542 5 milligrams per kilogram also

NOTE Confidence: 0.8662833

00:25:00.542 --> 00:25:03.150 spread over 40 minutes every hour.

NOTE Confidence: 0.8662833

00:25:03.150 --> 00:25:06.139 We looked at side effect rating scales.

NOTE Confidence: 0.8662833

00:25:06.140 --> 00:25:08.810 We also collected some blood samples

NOTE Confidence: 0.8662833

00:25:08.810 --> 00:25:12.347 from these patients to look at cademy

NOTE Confidence: 0.8662833

00:25:12.347 --> 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 --> 00:25:16.606 as you might imagine,

NOTE Confidence: 0.8662833

00:25:16.610 --> 00:25:18.285 we talked with these participants

NOTE Confidence: 0.8662833

00:25:18.285 --> 00:25:19.290 quite a lot,

NOTE Confidence: 0.8662833

00:25:19.290 --> 00:25:21.898 so we did reading scales on all of

NOTE Confidence: 0.8662833

00:25:21.898 --> 00:25:24.330 the day's noted here in a subset.

NOTE Confidence: 0.8662833

00:25:24.330 --> 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 --> 00:25:34.276 So this is the participant flow through
NOTE Confidence: 0.8703232

00:25:34.276 --> 00:25:36.800 this study we assessed 26 participants.
NOTE Confidence: 0.8703232

00:25:36.800 --> 00:25:39.348 19 of those consented for the trial,
NOTE Confidence: 0.8703232

00:25:39.350 --> 00:25:42.270 17 went on to receive the first infusion,
NOTE Confidence: 0.8703232

00:25:42.270 --> 00:25:44.702 so one withdrew prior to the first infusion
NOTE Confidence: 0.8703232

00:25:44.702 --> 00:25:47.380 due to an undisclosed medical condition.
NOTE Confidence: 0.8703232

00:25:47.380 --> 00:25:49.205 And then one panicked prior
NOTE Confidence: 0.8703232

00:25:49.205 --> 00:25:50.665 to the first infusion,
NOTE Confidence: 0.8703232

00:25:50.670 --> 00:25:53.430 right as we were about to hit start
NOTE Confidence: 0.8703232

00:25:53.430 --> 00:25:56.554 on the pump and decided that he
NOTE Confidence: 0.8703232

00:25:56.554 --> 00:25:58.899 would prefer not to participate.
NOTE Confidence: 0.8703232

00:25:58.900 --> 00:26:01.462 Out of those, 1711 were randomized by
NOTE Confidence: 0.8703232

00:26:01.462 --> 00:26:03.380 the Investigational Drug Service to
NOTE Confidence: 0.8703232

00:26:03.380 --> 00:26:05.275 receive the sequence of midazolam,

NOTE Confidence: 0.8703232

00:26:05.280 --> 00:26:06.620 and then cada mean,

NOTE Confidence: 0.8703232

00:26:06.620 --> 00:26:08.630 and then six were randomized to

NOTE Confidence: 0.8703232

00:26:08.702 --> 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 --> 00:26:15.826 All of the folks on the left completed

NOTE Confidence: 0.8703232

00:26:15.826 --> 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 --> 00:26:22.518 after they received that first infusion,

NOTE Confidence: 0.8703232

00:26:22.520 --> 00:26:24.662 an withdrew from the study to go

NOTE Confidence: 0.8703232

00:26:24.662 --> 00:26:26.689 receive cada mean in the community,

NOTE Confidence: 0.8703232

00:26:26.690 --> 00:26:28.616 and after we broke the blind,

NOTE Confidence: 0.8703232

00:26:28.620 --> 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 --> 00:26:35.330 This is describing our sample,

NOTE Confidence: 0.8703232

00:26:35.330 --> 00:26:37.142 so this was a heavily female

NOTE Confidence: 0.8703232

00:26:37.142 --> 00:26:39.254 sample which I think is consistent
NOTE Confidence: 0.8703232

00:26:39.254 --> 00:26:40.938 with the gender difference.
NOTE Confidence: 0.8703232

00:26:40.940 --> 00:26:42.344 In depression incidents we
NOTE Confidence: 0.8703232

00:26:42.344 --> 00:26:44.099 see that emerges after puberty,
NOTE Confidence: 0.8703232

00:26:44.100 --> 00:26:46.206 the average age was 15 1/2,
NOTE Confidence: 0.8703232

00:26:46.210 --> 00:26:48.289 but if you check out the histogram
NOTE Confidence: 0.8703232

00:26:48.289 --> 00:26:50.782 you can see that we had pretty
NOTE Confidence: 0.8703232

00:26:50.782 --> 00:26:52.310 good representation across the
NOTE Confidence: 0.8703232

00:26:52.310 --> 00:26:54.628 age range that we were targeting.
NOTE Confidence: 0.8703232

00:26:54.630 --> 00:26:56.736 About half were local to Connecticut.
NOTE Confidence: 0.8703232

00:26:56.740 --> 00:26:59.001 If you look at the baseline scores
NOTE Confidence: 0.8703232

00:26:59.001 --> 00:27:01.298 for folks that use these measures,
NOTE Confidence: 0.8703232

00:27:01.300 --> 00:27:02.976 these are high scores.
NOTE Confidence: 0.8703232

00:27:02.976 --> 00:27:06.449 So a CDRS with an average around 63.
NOTE Confidence: 0.8703232

00:27:06.450 --> 00:27:09.030 That's pretty similar to the baseline
NOTE Confidence: 0.8703232

00:27:09.030 --> 00:27:11.190 characteristics in the tortilla study,

NOTE Confidence: 0.8703232

00:27:11.190 --> 00:27:14.370 and a mattress of 33.

NOTE Confidence: 0.8703232

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

NOTE Confidence: 0.8703232

00:27:16.110 --> 00:27:18.697 onset was 13 years and the average

NOTE Confidence: 0.8703232

00:27:18.697 --> 00:27:20.257 duration was 21 months.

NOTE Confidence: 0.8703232

00:27:20.260 --> 00:27:23.239 So you can see that these are folks that

NOTE Confidence: 0.8703232

00:27:23.239 --> 00:27:26.505 had been depressed for a really long time.

NOTE Confidence: 0.8703232

00:27:26.510 --> 00:27:28.350 This is a really chronic,

NOTE Confidence: 0.8703232

00:27:28.350 --> 00:27:30.240 relatively severe sample and the

NOTE Confidence: 0.8703232

00:27:30.240 --> 00:27:32.130 average number of failed antidepressant

NOTE Confidence: 0.8703232

00:27:32.188 --> 00:27:33.868 trials was hovering around 3:00.

NOTE Confidence: 0.8703232

00:27:33.870 --> 00:27:36.078 So even though our entry criteria

NOTE Confidence: 0.8703232

00:27:36.078 --> 00:27:37.182 required only one,

NOTE Confidence: 0.8703232

00:27:37.190 --> 00:27:40.390 most people had failed several.

NOTE Confidence: 0.8703232

00:27:40.390 --> 00:27:42.070 In further characterizing the sample,

NOTE Confidence: 0.8703232

00:27:42.070 --> 00:27:44.667 about half had a history of suicide

NOTE Confidence: 0.8703232

00:27:44.667 --> 00:27:47.254 attempt little more than half had a

NOTE Confidence: 0.8703232

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

NOTE Confidence: 0.8703232

00:27:49.360 --> 00:27:50.584 And as I mentioned,

NOTE Confidence: 0.8703232

00:27:50.584 --> 00:27:52.850 this was a study where folks stayed

NOTE Confidence: 0.8703232

00:27:52.850 --> 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 --> 00:27:59.149 is characterizing what kinds

NOTE Confidence: 0.8703232

00:27:59.149 --> 00:28:00.946 of medicine's people were on.

NOTE Confidence: 0.8703232

00:28:00.946 --> 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 --> 00:28:06.906 About percent with

NOTE Confidence: 0.8703232

00:28:06.906 --> 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 --> 00:28:12.027 a couple other mood stabilizer

NOTE Confidence: 0.8703232

00:28:12.027 --> 00:28:14.497 medications in there as well,

NOTE Confidence: 0.8703232

00:28:14.500 --> 00:28:17.355 and two participants that were

NOTE Confidence: 0.8703232

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

NOTE Confidence: 0.8703232

00:28:19.640 --> 00:28:22.615 OK, so let's look at the data.

NOTE Confidence: 0.8703232

00:28:22.620 --> 00:28:25.170 Our primary outcome was the mattress.

NOTE Confidence: 0.8703232

00:28:25.170 --> 00:28:26.966 24 hours after infusion,

NOTE Confidence: 0.8703232

00:28:26.966 --> 00:28:28.762 comparing participants after they

NOTE Confidence: 0.8703232

00:28:28.762 --> 00:28:30.689 received medazaland 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 --> 00:28:36.636 following cada mean treatment.

NOTE Confidence: 0.8703232

00:28:36.640 --> 00:28:40.040 This is an effect size of about .75,

NOTE Confidence: 0.8703232

00:28:40.040 --> 00:28:43.638 which is pretty similar to the adult

NOTE Confidence: 0.8703232

00:28:43.638 --> 00:28:46.870 literature for midazolam controlled studies.

NOTE Confidence: 0.8703232

00:28:46.870 --> 00:28:49.306 If we dig in a little deeper,

NOTE Confidence: 0.8183757

00:28:49.310 --> 00:28:51.060 so past this primary outcome,

NOTE Confidence: 0.8183757

00:28:51.060 --> 00:28:53.844 we can look at the percentage of responders.

NOTE Confidence: 0.8183757

00:28:53.850 --> 00:28:56.106 So here on the right you can see
NOTE Confidence: 0.8183757

00:28:56.106 --> 00:28:57.983 that there were eight participants
NOTE Confidence: 0.8183757

00:28:57.983 --> 00:29:00.473 that responded to cada mean only,
NOTE Confidence: 0.8183757

00:29:00.480 --> 00:29:03.416 in addition to five responders who had a
NOTE Confidence: 0.8183757

00:29:03.416 --> 00:29:06.406 response to both cada mean and mad as lamb.
NOTE Confidence: 0.8183757

00:29:06.410 --> 00:29:07.460 In these studies,
NOTE Confidence: 0.8183757

00:29:07.460 --> 00:29:08.860 you're considered a responder.
NOTE Confidence: 0.8183757

00:29:08.860 --> 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 --> 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 --> 00:29:21.129 than medazzaland responders.
NOTE Confidence: 0.8183757

00:29:21.130 --> 00:29:23.140 This is another way of looking
NOTE Confidence: 0.8183757

00:29:23.140 --> 00:29:24.480 at the same data,
NOTE Confidence: 0.8183757

00:29:24.480 --> 00:29:26.065 so again eight people that

NOTE Confidence: 0.8183757

00:29:26.065 --> 00:29:28.076 responded to cada mean that did

NOTE Confidence: 0.8183757

00:29:28.076 --> 00:29:29.871 not respond to midazolam versus

NOTE Confidence: 0.8183757

00:29:29.871 --> 00:29:31.670 one person that responded to

NOTE Confidence: 0.8183757

00:29:31.670 --> 00:29:33.190 midazolam and not cada mean.

NOTE Confidence: 0.85616153

00:29:37.030 --> 00:29:38.800 This is the time course,

NOTE Confidence: 0.85616153

00:29:38.800 --> 00:29:41.864 so this is looking at the Madras score

NOTE Confidence: 0.85616153

00:29:41.864 --> 00:29:44.438 overtime all the way out to 14 days,

NOTE Confidence: 0.85616153

00:29:44.440 --> 00:29:46.953 which is the longest time period that

NOTE Confidence: 0.85616153

00:29:46.953 --> 00:29:49.515 we examined in this short term efficacy

NOTE Confidence: 0.85616153

00:29:49.515 --> 00:29:52.365 study and you can see that again you

NOTE Confidence: 0.85616153

00:29:52.365 --> 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 --> 00:30:00.330 separated all the way out to 14 days,

NOTE Confidence: 0.85616153

00:30:00.330 --> 00:30:01.738 so encouraging finding after

NOTE Confidence: 0.85616153

00:30:01.738 --> 00:30:02.794 a single infusion.

NOTE Confidence: 0.8599357

00:30:05.240 --> 00:30:07.816 I added some unpublished data here about
NOTE Confidence: 0.8599357

00:30:07.816 --> 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 --> 00:30:16.164 in the title of the talk were talking
NOTE Confidence: 0.8599357

00:30:16.164 --> 00:30:18.475 about anti suicide responses as well and
NOTE Confidence: 0.8599357

00:30:18.475 --> 00:30:21.490 as you saw in the inclusion criteria,
NOTE Confidence: 0.8599357

00:30:21.490 --> 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 --> 00:30:29.617 task to look at both depression
NOTE Confidence: 0.8599357

00:30:29.617 --> 00:30:31.865 and suicide associated cognitions.
NOTE Confidence: 0.8599357

00:30:31.870 --> 00:30:33.868 For those of you that aren't
NOTE Confidence: 0.8599357

00:30:33.868 --> 00:30:35.200 familiar with the 80,
NOTE Confidence: 0.8599357

00:30:35.200 --> 00:30:37.447 this is a test that measures reaction
NOTE Confidence: 0.8599357

00:30:37.447 --> 00:30:39.534 time to assess how quickly a
NOTE Confidence: 0.8599357

00:30:39.534 --> 00:30:41.646 participant can sort words or pictures

NOTE Confidence: 0.8599357

00:30:41.646 --> 00:30:43.860 that flash in front of the screen.

NOTE Confidence: 0.8599357

00:30:43.860 --> 00:30:45.188 So pairing words together.

NOTE Confidence: 0.8599357

00:30:45.188 --> 00:30:46.516 So in this example,

NOTE Confidence: 0.8599357

00:30:46.520 --> 00:30:49.517 pairing me with happy versus not me and sad,

NOTE Confidence: 0.8599357

00:30:49.520 --> 00:30:51.398 and the sorting speed reflects how

NOTE Confidence: 0.8599357

00:30:51.398 --> 00:30:53.180 tightly we associate two concepts.

NOTE Confidence: 0.8599357

00:30:53.180 --> 00:30:55.266 So if we already really tightly linked

NOTE Confidence: 0.8599357

00:30:55.266 --> 00:30:57.839 the idea of ourselves with being happy,

NOTE Confidence: 0.8599357

00:30:57.840 --> 00:30:58.590 people are,

NOTE Confidence: 0.8599357

00:30:58.590 --> 00:31:01.215 reaction time would be quicker for that

NOTE Confidence: 0.8599357

00:31:01.215 --> 00:31:03.867 than the association of self with sad.

NOTE Confidence: 0.8599357

00:31:03.870 --> 00:31:06.430 So quicker sorting indicates

NOTE Confidence: 0.8599357

00:31:06.430 --> 00:31:08.350 a stronger association.

NOTE Confidence: 0.8599357

00:31:08.350 --> 00:31:10.898 And this is just a subset again

NOTE Confidence: 0.8599357

00:31:10.898 --> 00:31:11.990 of our participants.

NOTE Confidence: 0.8599357

00:31:11.990 --> 00:31:15.266 So sort of a preliminary data kind of figure.

NOTE Confidence: 0.8599357

00:31:15.270 --> 00:31:17.806 We did four different high 80s and you

NOTE Confidence: 0.8599357

00:31:17.806 --> 00:31:20.441 can see that there is really little

NOTE Confidence: 0.8599357

00:31:20.441 --> 00:31:23.270 difference for the self harm and anxiety.

NOTE Confidence: 0.8599357

00:31:23.270 --> 00:31:25.606 I 80s but we see some nice separation

NOTE Confidence: 0.8599357

00:31:25.606 --> 00:31:27.146 that just escapes conventional

NOTE Confidence: 0.8599357

00:31:27.146 --> 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 --> 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 --> 00:31:38.930 given our questions at the top of the talk.

NOTE Confidence: 0.82176346

00:31:41.250 --> 00:31:43.236 I'll talk briefly about side effects.

NOTE Confidence: 0.82176346

00:31:43.240 --> 00:31:44.890 It's nice when things work,

NOTE Confidence: 0.82176346

00:31:44.890 --> 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 --> 00:31:50.846 so this is looking at intra

NOTE Confidence: 0.82176346

00:31:50.846 --> 00:31:52.170 infusion dissociative side effects.

NOTE Confidence: 0.82176346

00:31:52.170 --> 00:31:54.898 We use the cads.

NOTE Confidence: 0.82176346

00:31:54.900 --> 00:31:56.765 This figure, an alternate title

NOTE Confidence: 0.82176346

00:31:56.765 --> 00:31:59.350 would be medazzaland is not a great

NOTE Confidence: 0.82176346

00:31:59.350 --> 00:32:00.990 control for cada mean studies

NOTE Confidence: 0.82176346

00:32:00.990 --> 00:32:03.638 'cause you can see that there's a

NOTE Confidence: 0.82176346

00:32:03.638 --> 00:32:05.230 significant difference between cada

NOTE Confidence: 0.82176346

00:32:05.230 --> 00:32:07.885 mean and midazolam in terms of side

NOTE Confidence: 0.82176346

00:32:07.885 --> 00:32:09.369 effects associated side effects.

NOTE Confidence: 0.82176346

00:32:09.370 --> 00:32:11.932 I think the other important pieces

NOTE Confidence: 0.82176346

00:32:11.932 --> 00:32:14.143 that these dissipate really quickly

NOTE Confidence: 0.82176346

00:32:14.143 --> 00:32:16.747 and no one had any persistent

NOTE Confidence: 0.82176346

00:32:16.747 --> 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 --> 00:32:22.365 interesting slide because it lists

NOTE Confidence: 0.82176346

00:32:22.365 --> 00:32:24.075 the most prominent intra infusion
NOTE Confidence: 0.82176346

00:32:24.075 --> 00:32:26.040 side effects for both compounds,
NOTE Confidence: 0.82176346

00:32:26.040 --> 00:32:28.050 so these are individual items that
NOTE Confidence: 0.82176346

00:32:28.050 --> 00:32:30.428 are pulled out of the cads scale,
NOTE Confidence: 0.82176346

00:32:30.430 --> 00:32:32.712 and then I highlighted ones that were
NOTE Confidence: 0.82176346

00:32:32.712 --> 00:32:34.819 similar between cada mean and midazolam.
NOTE Confidence: 0.82176346

00:32:34.820 --> 00:32:36.710 So you can see feeling like you're
NOTE Confidence: 0.82176346

00:32:36.710 --> 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 --> 00:32:44.630 that it's experienced in both,
NOTE Confidence: 0.82176346

00:32:44.630 --> 00:32:46.989 although more in the Academy in Group.
NOTE Confidence: 0.82176346

00:32:46.990 --> 00:32:49.405 But then you can see some things
NOTE Confidence: 0.82176346

00:32:49.405 --> 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 --> 00:32:54.810 most participants have that experience,

NOTE Confidence: 0.82176346

00:32:54.810 --> 00:32:56.976 and that's really not an experience

NOTE Confidence: 0.82176346

00:32:56.976 --> 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 --> 00:33:06.930 so if you remember back at the

NOTE Confidence: 0.86410964

00:33:06.930 --> 00:33:09.145 beginning we know that ketamin can

NOTE Confidence: 0.86410964

00:33:09.145 --> 00:33:11.503 raise blood pressure and heart rate.

NOTE Confidence: 0.86410964

00:33:11.510 --> 00:33:14.030 So we see what we expect here.

NOTE Confidence: 0.86410964

00:33:14.030 --> 00:33:16.536 So this is looking at blood pressures,

NOTE Confidence: 0.86410964

00:33:16.540 --> 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 --> 00:33:23.356 blood pressure in the CADA mean group,

NOTE Confidence: 0.86410964

00:33:23.360 --> 00:33:25.160 but that returns to normal.

NOTE Confidence: 0.86410964

00:33:25.160 --> 00:33:27.134 We see a similar finding here

NOTE Confidence: 0.86410964

00:33:27.134 --> 00:33:28.880 with heart rate for participants

NOTE Confidence: 0.86410964

00:33:28.880 --> 00:33:31.414 out of our 17 had blood pressure
NOTE Confidence: 0.86410964

00:33:31.414 --> 00:33:33.704 that met criteria for stage two
NOTE Confidence: 0.86410964

00:33:33.704 --> 00:33:35.974 hypertension which is 140 / 90.
NOTE Confidence: 0.86410964

00:33:35.974 --> 00:33:37.994 But none persisted past the
NOTE Confidence: 0.86410964

00:33:37.994 --> 00:33:39.610 end of the infusion,
NOTE Confidence: 0.86410964

00:33:39.610 --> 00:33:43.221 and none exceeded 150 / 95 or values
NOTE Confidence: 0.86410964

00:33:43.221 --> 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 --> 00:33:56.225 right to the single dose conclusions.
NOTE Confidence: 0.86410964

00:33:56.230 --> 00:33:58.258 So the conclusions from this study
NOTE Confidence: 0.86410964

00:33:58.258 --> 00:34:00.397 where the CADA mean was well
NOTE Confidence: 0.86410964

00:34:00.397 --> 00:34:02.187 tolerated in this small sample.
NOTE Confidence: 0.7727775

00:34:04.590 --> 00:34:07.050 Really, that cada mean significantly
NOTE Confidence: 0.7727775

00:34:07.050 --> 00:34:09.510 improved depression symptoms at one

NOTE Confidence: 0.7727775

00:34:09.585 --> 00:34:12.129 day post infusion as measured by

NOTE Confidence: 0.7727775

00:34:12.129 --> 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 --> 00:34:22.510 as that was really a rule out in this study.

NOTE Confidence: 0.7727775

00:34:22.510 --> 00:34:25.579 So I gave you a teaser with the IAT,

NOTE Confidence: 0.7727775

00:34:25.580 --> 00:34:27.996 but really there needs to be a separate

NOTE Confidence: 0.7727775

00:34:27.996 --> 00:34:30.347 study that's looking at suicidal thinking.

NOTE Confidence: 0.7727775

00:34:30.350 --> 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 --> 00:34:36.145 effective in the short term.

NOTE Confidence: 0.7727775

00:34:36.150 --> 00:34:39.030 But as we followed some of these participants

NOTE Confidence: 0.7727775

00:34:39.030 --> 00:34:40.919 informally after the trial was over,

NOTE Confidence: 0.7727775

00:34:40.920 --> 00:34:42.985 most people relapsed and that

NOTE Confidence: 0.7727775

00:34:42.985 --> 00:34:45.479 is consistent with what we see

NOTE Confidence: 0.7727775

00:34:45.479 --> 00:34:47.908 in adults that the effects of a
NOTE Confidence: 0.7727775

00:34:47.908 --> 00:34:50.229 single dose are really ephemeral.
NOTE Confidence: 0.7727775

00:34:50.230 --> 00:34:51.952 So the big conclusion is that
NOTE Confidence: 0.7727775

00:34:51.952 --> 00:34:53.100 more research is needed.
NOTE Confidence: 0.7727775

00:34:53.100 --> 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 --> 00:34:58.933 but I think the real conclusion is
NOTE Confidence: 0.7727775

00:34:58.933 --> 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 --> 00:35:04.673 and so that's what I'm going to
NOTE Confidence: 0.7727775

00:35:04.673 --> 00:35:06.300 spend the time talking about.
NOTE Confidence: 0.7727775

00:35:06.300 --> 00:35:08.668 Now I'm going to talk about four different
NOTE Confidence: 0.7727775

00:35:08.668 --> 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 --> 00:35:14.905 then maybe in the question period.
NOTE Confidence: 0.7727775

00:35:14.910 --> 00:35:16.602 Folks have other ideas about important

NOTE Confidence: 0.7727775

00:35:16.602 --> 00:35:18.640 areas that we should be thinking about,

NOTE Confidence: 0.7727775

00:35:18.640 --> 00:35:20.719 but I think the first one is

NOTE Confidence: 0.7727775

00:35:20.719 --> 00:35:21.610 really extending Caribbeans.

NOTE Confidence: 0.7727775

00:35:21.610 --> 00:35:23.836 Antidepressant efficacy and one way to

NOTE Confidence: 0.7727775

00:35:23.836 --> 00:35:27.250 do that is to think about repeat dosing,

NOTE Confidence: 0.7727775

00:35:27.250 --> 00:35:30.458 so this is a paper from an adult

NOTE Confidence: 0.7727775

00:35:30.458 --> 00:35:32.089 sample back in 2016.

NOTE Confidence: 0.7727775

00:35:32.090 --> 00:35:34.813 This is showing that twice weekly dosing

NOTE Confidence: 0.7727775

00:35:34.813 --> 00:35:36.877 over three weeks yields remissions

NOTE Confidence: 0.7727775

00:35:36.877 --> 00:35:39.747 that last an average of three weeks,

NOTE Confidence: 0.7727775

00:35:39.750 --> 00:35:43.103 so a better response after getting 6

NOTE Confidence: 0.7727775

00:35:43.103 --> 00:35:46.038 infusions versus getting a single infusion.

NOTE Confidence: 0.7727775

00:35:46.040 --> 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 --> 00:35:54.886 so some folks relapsed in six days some.

NOTE Confidence: 0.7727775

00:35:54.890 --> 00:35:58.257 Folks made it longer than three months.
NOTE Confidence: 0.7727775

00:35:58.260 --> 00:36:00.380 And the individual factors that
NOTE Confidence: 0.7727775

00:36:00.380 --> 00:36:02.500 paration are not well understood.
NOTE Confidence: 0.7727775

00:36:02.500 --> 00:36:05.468 We have a little bit of experience
NOTE Confidence: 0.7727775

00:36:05.468 --> 00:36:06.740 with repeat dosing.
NOTE Confidence: 0.7727775

00:36:06.740 --> 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 --> 00:36:14.800 This was an individual case,
NOTE Confidence: 0.7727775

00:36:14.800 --> 00:36:19.040 a 16 year old boy with a history of ADHD,
NOTE Confidence: 0.7727775

00:36:19.040 --> 00:36:20.732 depression and Crohn's disease.
NOTE Confidence: 0.7727775

00:36:20.732 --> 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 --> 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 --> 00:36:32.820 this data before,
NOTE Confidence: 0.7727775

00:36:32.820 --> 00:36:34.660 but this is looking at

NOTE Confidence: 0.7727775

00:36:34.660 --> 00:36:35.764 his individual mattress.

NOTE Confidence: 0.7727775

00:36:35.770 --> 00:36:37.250 So depression and SSI,

NOTE Confidence: 0.7727775

00:36:37.250 --> 00:36:39.100 so suicidal ideations scores and

NOTE Confidence: 0.7727775

00:36:39.100 --> 00:36:41.390 the arrows are showing the cada

NOTE Confidence: 0.7727775

00:36:41.390 --> 00:36:43.240 mean infusions that he received

NOTE Confidence: 0.7727775

00:36:43.310 --> 00:36:44.630 in this acute series.

NOTE Confidence: 0.7727775

00:36:44.630 --> 00:36:46.682 You can see reduction in these

NOTE Confidence: 0.7727775

00:36:46.682 --> 00:36:48.690 symptoms with the first infusion,

NOTE Confidence: 0.7727775

00:36:48.690 --> 00:36:51.511 but a further and more significant reduction

NOTE Confidence: 0.7727775

00:36:51.511 --> 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 --> 00:37:00.148 This blip in the middle?

NOTE Confidence: 0.7727775

00:37:00.150 --> 00:37:03.104 Was the day that his insurance company

NOTE Confidence: 0.7727775

00:37:03.104 --> 00:37:06.108 denied the potential plan and I think

NOTE Confidence: 0.7727775

00:37:06.108 --> 00:37:08.183 everybody's Madras scores might have

NOTE Confidence: 0.7727775

00:37:08.183 --> 00:37:10.724 gone up that day and I think it's
NOTE Confidence: 0.7727775

00:37:10.724 --> 00:37:12.782 a good point to remember is that
NOTE Confidence: 0.7727775

00:37:12.782 --> 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 --> 00:37:18.487 with disappointing things happen,
NOTE Confidence: 0.8297204

00:37:18.490 --> 00:37:21.605 but this was a patient that got
NOTE Confidence: 0.8297204

00:37:21.605 --> 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 --> 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 --> 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 --> 00:37:37.070 that give us pause about that.
NOTE Confidence: 0.8297204

00:37:37.070 --> 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 --> 00:37:45.948 used lots of cada mean recreationally.

NOTE Confidence: 0.8297204

00:37:45.950 --> 00:37:48.614 Or have ketamine use disorder and

NOTE Confidence: 0.8297204

00:37:48.614 --> 00:37:50.390 we see neurocognitive effects,

NOTE Confidence: 0.8297204

00:37:50.390 --> 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 --> 00:37:54.887 Problems,

NOTE Confidence: 0.8297204

00:37:54.887 --> 00:37:57.449 so there is bladder damage and

NOTE Confidence: 0.8297204

00:37:57.449 --> 00:38:00.021 this sort of persistent cystitis

NOTE Confidence: 0.8297204

00:38:00.021 --> 00:38:02.437 that people present with.

NOTE Confidence: 0.8297204

00:38:02.440 --> 00:38:04.852 So those are concerning and then

NOTE Confidence: 0.8297204

00:38:04.852 --> 00:38:07.169 animal studies also give us pause,

NOTE Confidence: 0.8297204

00:38:07.170 --> 00:38:08.742 particularly in thinking about

NOTE Confidence: 0.8297204

00:38:08.742 --> 00:38:09.528 developmental populations.

NOTE Confidence: 0.8297204

00:38:09.530 --> 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 --> 00:38:16.074 to areas like the developing

NOTE Confidence: 0.8297204

00:38:16.074 --> 00:38:17.810 hippocampus and prefrontal cortex.
NOTE Confidence: 0.8297204

00:38:17.810 --> 00:38:19.374 Those are important areas,
NOTE Confidence: 0.8297204

00:38:19.374 --> 00:38:22.167 and so things like cell death and
NOTE Confidence: 0.8297204

00:38:22.167 --> 00:38:24.387 white matter changes and their real
NOTE Confidence: 0.8297204

00:38:24.387 --> 00:38:27.193 issue is that the toxicity threshold of
NOTE Confidence: 0.8297204

00:38:27.193 --> 00:38:30.042 repeat cada mean exposure is not known.
NOTE Confidence: 0.8297204

00:38:30.042 --> 00:38:34.310 So we know that there is a dose that's safe.
NOTE Confidence: 0.8297204

00:38:34.310 --> 00:38:36.356 This is given anesthesia 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 --> 00:38:40.345 really think twice about it.
NOTE Confidence: 0.8297204

00:38:40.350 --> 00:38:42.838 But we know there's a dose out there
NOTE Confidence: 0.8297204

00:38:42.838 --> 00:38:45.867 that's too much and there's not a great
NOTE Confidence: 0.8297204

00:38:45.867 --> 00:38:48.160 understanding in Pediatrics or in adults.
NOTE Confidence: 0.8297204

00:38:48.160 --> 00:38:51.268 Really, what that dose threshold is.
NOTE Confidence: 0.8297204

00:38:51.270 --> 00:38:52.638 So that's one piece,
NOTE Confidence: 0.8297204

00:38:52.638 --> 00:38:54.006 a second related gap.

NOTE Confidence: 0.8297204

00:38:54.010 --> 00:38:55.978 In understanding that I think about

NOTE Confidence: 0.8297204

00:38:55.978 --> 00:38:59.103 a lot is what do you do after an

NOTE Confidence: 0.8297204

00:38:59.103 --> 00:39:00.843 acute cada mean treatment series?

NOTE Confidence: 0.8297204

00:39:00.850 --> 00:39:03.900 So if we do kind of a similar paradigm to

NOTE Confidence: 0.8297204

00:39:03.983 --> 00:39:07.340 what we saw in the case report for infusions,

NOTE Confidence: 0.8297204

00:39:07.340 --> 00:39:10.076 or six infusions over a couple of weeks,

NOTE Confidence: 0.8297204

00:39:10.080 --> 00:39:10.762 what's next?

NOTE Confidence: 0.8297204

00:39:10.762 --> 00:39:12.126 What's the game plan?

NOTE Confidence: 0.8297204

00:39:12.130 --> 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 --> 00:39:21.809 although the idea of how many an at what?

NOTE Confidence: 0.8297204

00:39:21.810 --> 00:39:24.685 Intervals those things are really

NOTE Confidence: 0.8297204

00:39:24.685 --> 00:39:28.760 not worked out very well yet at all.

NOTE Confidence: 0.8297204

00:39:28.760 --> 00:39:30.316 So a second strategy,

NOTE Confidence: 0.8297204

00:39:30.316 --> 00:39:34.349 and one that I'm sort of more partial to is,
NOTE Confidence: 0.8297204

00:39:34.350 --> 00:39:37.017 can we harness the period of Wellness
NOTE Confidence: 0.8297204

00:39:37.017 --> 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 --> 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 --> 00:39:49.696 to remind you that there is this idea
NOTE Confidence: 0.8297204

00:39:49.696 --> 00:39:52.520 that cada mean enhances synaptic plasticity.
NOTE Confidence: 0.8297204

00:39:52.520 --> 00:39:54.830 Synaptic plasticity is very important
NOTE Confidence: 0.8297204

00:39:54.830 --> 00:39:57.884 for things like learning and so folks
NOTE Confidence: 0.8297204

00:39:57.884 --> 00:40:00.222 have started to ask is there this?
NOTE Confidence: 0.8297204

00:40:00.230 --> 00:40:03.198 Is there a period of ketamin induced
NOTE Confidence: 0.8297204

00:40:03.198 --> 00:40:04.947 enhanced synaptic plasticity that
NOTE Confidence: 0.8297204

00:40:04.947 --> 00:40:07.002 would make things like psychotherapy
NOTE Confidence: 0.8297204

00:40:07.002 --> 00:40:09.065 more impactful and so there's
NOTE Confidence: 0.8297204

00:40:09.065 --> 00:40:11.189 a number of studies in adults,

NOTE Confidence: 0.8297204

00:40:11.190 --> 00:40:13.460 including one here at Yale

NOTE Confidence: 0.8297204

00:40:13.460 --> 00:40:15.276 with my colleague Sam.

NOTE Confidence: 0.8297204

00:40:15.280 --> 00:40:16.972 Trying to give intensive

NOTE Confidence: 0.8297204

00:40:16.972 --> 00:40:18.664 psychotherapy during the period

NOTE Confidence: 0.8297204

00:40:18.664 --> 00:40:20.820 of acute ketamine treatment,

NOTE Confidence: 0.8297204

00:40:20.820 --> 00:40:24.950 so CBT in his case.

NOTE Confidence: 0.8297204

00:40:24.950 --> 00:40:27.126 But there are a number of other groups

NOTE Confidence: 0.8297204

00:40:27.126 --> 00:40:29.880 out there that are looking at different

NOTE Confidence: 0.8297204

00:40:29.880 --> 00:40:31.596 types of psychotherapeutic modalities,

NOTE Confidence: 0.8297204

00:40:31.600 --> 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 --> 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 --> 00:40:47.898 and it's not just 'cause I have a newborn.

NOTE Confidence: 0.84106505

00:40:47.900 --> 00:40:49.100 I like this cartoon,

NOTE Confidence: 0.84106505

00:40:49.100 --> 00:40:51.297 says the tortoise and the hare is
NOTE Confidence: 0.84106505

00:40:51.297 --> 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 --> 00:40:56.482 after 19 additional trials.
NOTE Confidence: 0.84106505

00:40:56.490 --> 00:40:58.480 Of course the results were
NOTE Confidence: 0.84106505

00:40:58.480 --> 00:41:00.072 shown to be anomalous.
NOTE Confidence: 0.84106505

00:41:00.080 --> 00:41:02.060 And so, even though I'm really
NOTE Confidence: 0.84106505

00:41:02.060 --> 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 --> 00:41:07.846 we really need larger sample sizes.
NOTE Confidence: 0.84106505

00:41:07.850 --> 00:41:09.878 If you look at the history
NOTE Confidence: 0.84106505

00:41:09.878 --> 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 --> 00:41:16.257 trials with ends of 10 or 15 or 20
NOTE Confidence: 0.84106505

00:41:16.257 --> 00:41:19.008 that do not pan out in the larger term.
NOTE Confidence: 0.84106505

00:41:19.010 --> 00:41:22.698 And so we really need a concerted effort

NOTE Confidence: 0.84106505

00:41:22.698 --> 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 --> 00:41:30.345 that are needed so one question

NOTE Confidence: 0.84106505

00:41:30.345 --> 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 --> 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 --> 00:41:40.649 that we addressed in our first trial,

NOTE Confidence: 0.84106505

00:41:40.650 --> 00:41:42.610 but it's something that's very

NOTE Confidence: 0.84106505

00:41:42.610 --> 00:41:44.178 much on our minds.

NOTE Confidence: 0.84106505

00:41:44.180 --> 00:41:46.948 So what about suicidality?

NOTE Confidence: 0.84106505

00:41:46.950 --> 00:41:49.162 And then a fourth gap in our

NOTE Confidence: 0.84106505

00:41:49.162 --> 00:41:51.046 understanding is cademy, and for whom?

NOTE Confidence: 0.84106505

00:41:51.046 --> 00:41:54.527 And this this gap has a lot of pieces to it,

NOTE Confidence: 0.84106505

00:41:54.530 --> 00:41:56.742 so you could take it a lot

NOTE Confidence: 0.84106505

00:41:56.742 --> 00:41:58.950 of different places. One is.
NOTE Confidence: 0.84106505

00:41:58.950 --> 00:42:03.360 Disorders right so in the mean ha.
NOTE Confidence: 0.77073514

00:42:05.830 --> 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 --> 00:42:11.088 It has promising data for PTSD
NOTE Confidence: 0.77073514

00:42:11.088 --> 00:42:13.841 and I think you know other folks
NOTE Confidence: 0.77073514

00:42:13.841 --> 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 --> 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 --> 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 --> 00:42:34.054 But then when you look at the list
NOTE Confidence: 0.77073514

00:42:34.054 --> 00:42:36.378 of disorders that are up there,
NOTE Confidence: 0.77073514

00:42:36.380 --> 00:42:39.300 you know SSR eyes are the first line

NOTE Confidence: 0.77073514

00:42:39.300 --> 00:42:42.156 treatment for all four of those disorders,

NOTE Confidence: 0.77073514

00:42:42.160 --> 00:42:44.576 so it would not be outside of our

NOTE Confidence: 0.77073514

00:42:44.576 --> 00:42:46.528 history that single medication or

NOTE Confidence: 0.77073514

00:42:46.528 --> 00:42:48.663 type of medication is effective

NOTE Confidence: 0.77073514

00:42:48.663 --> 00:42:50.240 for multiple disorders,

NOTE Confidence: 0.77073514

00:42:50.240 --> 00:42:52.165 and I think that's relevant

NOTE Confidence: 0.77073514

00:42:52.165 --> 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 --> 00:42:57.612 but thinking about whether

NOTE Confidence: 0.77073514

00:42:57.612 --> 00:43:00.445 each mean is useful in some of

NOTE Confidence: 0.77073514

00:43:00.445 --> 00:43:02.285 these other disorders as a.

NOTE Confidence: 0.77073514

00:43:02.290 --> 00:43:05.428 Totally open question.

NOTE Confidence: 0.77073514

00:43:05.430 --> 00:43:07.758 Another question about Kennedy firm is

NOTE Confidence: 0.77073514

00:43:07.758 --> 00:43:09.759 whether there are clinical features

NOTE Confidence: 0.77073514

00:43:09.759 --> 00:43:11.699 or predisposing factors that would

NOTE Confidence: 0.77073514

00:43:11.699 --> 00:43:13.910 make someone a better candidate.
NOTE Confidence: 0.77073514

00:43:13.910 --> 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 --> 00:43:20.988 So anxious depression for awhile was
NOTE Confidence: 0.77073514

00:43:20.988 --> 00:43:24.928 sort of the hot topic for a particularly.
NOTE Confidence: 0.77073514

00:43:24.930 --> 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 --> 00:43:30.600 is another symptom.
NOTE Confidence: 0.77073514

00:43:30.600 --> 00:43:34.227 That cada mean seems to be good at treating,
NOTE Confidence: 0.77073514

00:43:34.230 --> 00:43:37.044 and this can be a really sticky,
NOTE Confidence: 0.77073514

00:43:37.050 --> 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 --> 00:43:43.088 And then a study came out.
NOTE Confidence: 0.77073514

00:43:43.090 --> 00:43:44.435 Actually quite recently that showed
NOTE Confidence: 0.77073514

00:43:44.435 --> 00:43:46.405 the adults that had a history of
NOTE Confidence: 0.77073514

00:43:46.405 --> 00:43:47.557 childhood trauma actually seemed

NOTE Confidence: 0.77073514
00:43:47.557 --> 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 --> 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 --> 00:44:00.928 Question of how do we separate?
NOTE Confidence: 0.6548977
00:44:03.820 --> 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 --> 00:44:15.934 Cedar wood. Out. Who would respond and
NOTE Confidence: 0.23248863
00:44:15.934 --> 00:44:18.310 who would not respond to cada mean?
NOTE Confidence: 0.23248863
00:44:18.310 --> 00:44:20.358 And I think this really gets at the
NOTE Confidence: 0.23248863
00:44:20.358 --> 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 --> 00:44:26.240 especially you know when you're seeing
NOTE Confidence: 0.23248863
00:44:26.240 --> 00:44:28.389 people that have tried many treatments,
NOTE Confidence: 0.23248863
00:44:28.390 --> 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 --> 00:44:34.920 We try a new thing.

NOTE Confidence: 0.23248863

00:44:34.920 --> 00:44:37.580 We wait another eight weeks and we

NOTE Confidence: 0.23248863

00:44:37.580 --> 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 --> 00:44:47.244 but it is really acute in child

NOTE Confidence: 0.23248863

00:44:47.244 --> 00:44:48.300 and adolescent psychiatry.

NOTE Confidence: 0.23248863

00:44:48.300 --> 00:44:50.808 Developmental time is precious.

NOTE Confidence: 0.23248863

00:44:50.810 --> 00:44:53.120 In this sort of empiric exercise of

NOTE Confidence: 0.23248863

00:44:53.120 --> 00:44:55.402 just trying things and they work or

NOTE Confidence: 0.23248863

00:44:55.402 --> 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 --> 00:45:06.875 I think we you know patients failed.

NOTE Confidence: 0.23248863

00:45:06.880 --> 00:45:09.740 So personalizing a goal?

NOTE Confidence: 0.84745795

00:45:12.620 --> 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 --> 00:45:20.731 are on your to remind you how to

NOTE Confidence: 0.84745795

00:45:20.731 --> 00:45:22.683 extend the antidepressant efficacy.

NOTE Confidence: 0.84745795

00:45:22.690 --> 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 --> 00:45:32.608 The reason whether we can partner cada mean

NOTE Confidence: 0.85713524

00:45:32.608 --> 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 --> 00:45:44.640 We need bigger studies and we need them now.

NOTE Confidence: 0.85713524

00:45:44.640 --> 00:45:46.130 And then personalized medicine approaches.

NOTE Confidence: 0.85713524

00:45:46.130 --> 00:45:48.794 So who are the best candidates for cada mean?

NOTE Confidence: 0.85713524

00:45:48.800 --> 00:45:50.805 And can we predict treatment

NOTE Confidence: 0.85713524

00:45:50.805 --> 00:45:52.810 response is ahead of time?

NOTE Confidence: 0.85713524

00:45:52.810 --> 00:45:55.610 And so I will spend my last five
NOTE Confidence: 0.85713524

00:45:55.610 --> 00:45:57.639 minutes talking about some of the
NOTE Confidence: 0.85713524

00:45:57.639 --> 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 --> 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 --> 00:46:13.569 so one is called the sad kid study.
NOTE Confidence: 0.85713524

00:46:13.570 --> 00:46:16.018 This is an acronym that took
NOTE Confidence: 0.85713524

00:46:16.018 --> 00:46:17.650 many weeks to develop.
NOTE Confidence: 0.85713524

00:46:17.650 --> 00:46:19.282 The severe adolescent depression,
NOTE Confidence: 0.85713524

00:46:19.282 --> 00:46:21.322 cada mean intermediate duration study.
NOTE Confidence: 0.85713524

00:46:21.330 --> 00:46:24.438 This was a mentor toward that.
NOTE Confidence: 0.85713524

00:46:24.440 --> 00:46:26.545 Starting with the Klingons tied
NOTE Confidence: 0.85713524

00:46:26.545 --> 00:46:28.229 third Generation Foundation when
NOTE Confidence: 0.85713524

00:46:28.229 --> 00:46:30.957 I was in my last year of the solar

NOTE Confidence: 0.85713524

00:46:30.957 --> 00:46:33.062 program and was bolstered by an

NOTE Confidence: 0.85713524

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 --> 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 --> 00:46:44.297 So this is the recent are one that I

NOTE Confidence: 0.85713524

00:46:44.297 --> 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 --> 00:46:50.946 And then I can't have a title that

NOTE Confidence: 0.85713524

00:46:50.946 --> 00:46:53.046 doesn't have some long extra subtitle,

NOTE Confidence: 0.85713524

00:46:53.050 --> 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 --> 00:46:58.609 And I'm talking about these two together

NOTE Confidence: 0.85713524

00:46:58.609 --> 00:47:00.518 because they have similar designs.

NOTE Confidence: 0.85713524

00:47:00.520 --> 00:47:03.432 I really like this design 'cause I think

NOTE Confidence: 0.85713524

00:47:03.432 --> 00:47:05.950 it balances the rigor of a parallel
NOTE Confidence: 0.85713524

00:47:05.950 --> 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 --> 00:47:12.292 so I'll tell you about these together,
NOTE Confidence: 0.85713524

00:47:12.300 --> 00:47:14.868 so both of these studies are
NOTE Confidence: 0.85713524

00:47:14.868 --> 00:47:16.152 two phase trials.
NOTE Confidence: 0.85713524

00:47:16.160 --> 00:47:19.376 So in the first phase people are randomized
NOTE Confidence: 0.85713524

00:47:19.376 --> 00:47:22.099 to receive several doses of either
NOTE Confidence: 0.85713524

00:47:22.099 --> 00:47:25.170 repeat CADA mean or repeat medazzaland AM.
NOTE Confidence: 0.85713524

00:47:25.170 --> 00:47:27.618 After that period there is an
NOTE Confidence: 0.85713524

00:47:27.618 --> 00:47:29.890 open phase of several months.
NOTE Confidence: 0.85713524

00:47:29.890 --> 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 --> 00:47:35.464 They received standard
NOTE Confidence: 0.85713524

00:47:35.464 --> 00:47:36.748 depression treatment weekly,
NOTE Confidence: 0.85713524

00:47:36.750 --> 00:47:38.754 mood assessments and monthly

NOTE Confidence: 0.85713524

00:47:38.754 --> 00:47:40.758 cognitive and mood batteries.

NOTE Confidence: 0.85713524

00:47:40.760 --> 00:47:42.840 And then the part that I really like.

NOTE Confidence: 0.85713524

00:47:42.840 --> 00:47:44.370 Like if I were thinking about

NOTE Confidence: 0.85713524

00:47:44.370 --> 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 --> 00:47:50.120 I've tried a lot of things.

NOTE Confidence: 0.85713524

00:47:50.120 --> 00:47:52.514 What if I get placebo and I don't get

NOTE Confidence: 0.85713524

00:47:52.514 --> 00:47:54.539 better like what do I do with that?

NOTE Confidence: 0.85713524

00:47:54.540 --> 00:47:55.580 And so I think.

NOTE Confidence: 0.67543274

00:47:58.020 --> 00:48:03.555 That that as a lamb if they do not.

NOTE Confidence: 0.67543274

00:48:03.560 --> 00:48:06.265 Improvement are then offered the

NOTE Confidence: 0.67543274

00:48:06.265 --> 00:48:09.487 opportunity to receive the CADA mean

NOTE Confidence: 0.67543274

00:48:09.487 --> 00:48:12.871 paradigm in the open phase and then we

NOTE Confidence: 0.67543274

00:48:12.871 --> 00:48:16.430 follow everyone over that period of months.

NOTE Confidence: 0.67543274

00:48:16.430 --> 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 --> 00:48:23.902 so in the sad kids, we're looking at
NOTE Confidence: 0.67543274

00:48:23.902 --> 00:48:25.558 pediatric treatment resistant oppression.
NOTE Confidence: 0.67543274

00:48:25.560 --> 00:48:28.496 The paradigm is 6 inches and there is
NOTE Confidence: 0.67543274

00:48:28.496 --> 00:48:31.419 an allowance for a couple additional
NOTE Confidence: 0.67543274

00:48:31.419 --> 00:48:33.003 symptom triggered maintenance
NOTE Confidence: 0.67543274

00:48:33.003 --> 00:48:35.942 infusions and then the primary outcome
NOTE Confidence: 0.67543274

00:48:35.942 --> 00:48:38.486 for the top study is depression.
NOTE Confidence: 0.67543274

00:48:38.490 --> 00:48:41.444 And that contrasts with the NIH study,
NOTE Confidence: 0.67543274

00:48:41.450 --> 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 --> 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 --> 00:48:52.255 So they have to have both treatment
NOTE Confidence: 0.67543274

00:48:52.255 --> 00:48:54.182 resistant depression and significant

NOTE Confidence: 0.67543274

00:48:54.182 --> 00:48:57.092 suicidal thinking or action in the

NOTE Confidence: 0.67543274

00:48:57.092 --> 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 --> 00:49:08.658 So we hope that most of the people that

NOTE Confidence: 0.67543274

00:49:08.658 --> 00:49:11.334 come across our way that are appropriate

NOTE Confidence: 0.67543274

00:49:11.334 --> 00:49:14.206 for this kind of treatment would fit

NOTE Confidence: 0.67543274

00:49:14.206 --> 00:49:17.174 into one of these two clinical trials.

NOTE Confidence: 0.67543274

00:49:17.180 --> 00:49:19.610 And then the last piece which

NOTE Confidence: 0.67543274

00:49:19.610 --> 00:49:21.230 I'm really excited about.

NOTE Confidence: 0.67543274

00:49:21.230 --> 00:49:23.813 You might have noticed this tiny brain

NOTE Confidence: 0.67543274

00:49:23.813 --> 00:49:25.955 just appeared under the enroll in

NOTE Confidence: 0.67543274

00:49:25.955 --> 00:49:28.223 randomized and we've worked to try to

NOTE Confidence: 0.67543274

00:49:28.291 --> 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

NOTE Confidence: 0.67543274

00:49:32.863 --> 00:49:34.192 neuroimaging strategically into
NOTE Confidence: 0.67543274

00:49:34.192 --> 00:49:35.410 these clinical trials.
NOTE Confidence: 0.67543274

00:49:35.410 --> 00:49:37.435 So this is a collaboration
NOTE Confidence: 0.67543274

00:49:37.435 --> 00:49:38.650 with Todd Constable,
NOTE Confidence: 0.67543274

00:49:38.650 --> 00:49:41.618 who's here at Yale in the Department
NOTE Confidence: 0.67543274

00:49:41.618 --> 00:49:44.490 of Radiology and Biomedical Imaging.
NOTE Confidence: 0.67543274

00:49:44.490 --> 00:49:46.962 And so we're interested in functional
NOTE Confidence: 0.67543274

00:49:46.962 --> 00:49:48.198 connectome response predictors.
NOTE Confidence: 0.67543274

00:49:48.200 --> 00:49:50.666 So what does that actually mean?
NOTE Confidence: 0.67543274

00:49:50.670 --> 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 --> 00:49:59.180 predictive modeling and what that
NOTE Confidence: 0.67543274

00:49:59.238 --> 00:50:01.150 means is that you go in a magnet.
NOTE Confidence: 0.67543274

00:50:01.150 --> 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 --> 00:50:08.878 tasks which are listed below and the

NOTE Confidence: 0.67543274

00:50:08.878 --> 00:50:11.062 tasks are designed to try to sort

NOTE Confidence: 0.67543274

00:50:11.062 --> 00:50:13.410 of stretch your brain across all

NOTE Confidence: 0.67543274

00:50:13.410 --> 00:50:15.034 of these different neurocognitive

NOTE Confidence: 0.67543274

00:50:15.034 --> 00:50:17.077 domains and by getting like a full

NOTE Confidence: 0.67543274

00:50:17.077 --> 00:50:19.216 picture of how your brain is working

NOTE Confidence: 0.67543274

00:50:19.216 --> 00:50:20.588 across all these domains,

NOTE Confidence: 0.67543274

00:50:20.590 --> 00:50:23.014 you get this highly individual connectome

NOTE Confidence: 0.67543274

00:50:23.014 --> 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 --> 00:50:29.396 associated with treatment response.

NOTE Confidence: 0.67543274

00:50:29.400 --> 00:50:32.508 The scan time is under an hour,

NOTE Confidence: 0.67543274

00:50:32.510 --> 00:50:35.464 so we think it's feasible and why

NOTE Confidence: 0.67543274

00:50:35.464 --> 00:50:38.080 I'm excited about this is Todd's

NOTE Confidence: 0.67543274

00:50:38.080 --> 00:50:41.034 group is showed that you can predict

NOTE Confidence: 0.67543274

00:50:41.117 --> 00:50:42.689 with this approach.

NOTE Confidence: 0.67543274

00:50:42.690 --> 00:50:44.034 Symptoms of interest,
NOTE Confidence: 0.67543274

00:50:44.034 --> 00:50:46.274 so things like inattention 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 --> 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 --> 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 --> 00:50:59.103 So she had a great paper and a JP
NOTE Confidence: 0.67543274

00:50:59.103 --> 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 --> 00:51:06.348 using this kind of approach,
NOTE Confidence: 0.67543274

00:51:06.350 --> 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 --> 00:51:14.594 With neuroimaging in a clinical trial design.
NOTE Confidence: 0.67543274

00:51:14.600 --> 00:51:16.575 So I'm super excited about
NOTE Confidence: 0.67543274

00:51:16.575 --> 00:51:19.309 this and hope it can move us.

NOTE Confidence: 0.67543274
00:51:19.310 --> 00:51:20.783 Maybe one step,
NOTE Confidence: 0.67543274
00:51:20.783 --> 00:51:23.729 one inch closer on the personalized
NOTE Confidence: 0.67543274
00:51:23.729 --> 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 --> 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 --> 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 --> 00:51:40.742 so there were eight studies awarded
NOTE Confidence: 0.82081467
00:51:40.742 --> 00:51:43.508 and four of them are for youth,
NOTE Confidence: 0.82081467
00:51:43.510 --> 00:51:45.886 so I'm really encouraged by that.
NOTE Confidence: 0.82081467
00:51:45.890 --> 00:51:48.676 So mine is there at the top.
NOTE Confidence: 0.82081467
00:51:48.680 --> 00:51:51.452 There's a group at Cleveland Clinic that's
NOTE Confidence: 0.82081467

00:51:51.452 --> 00:51:54.588 also doing a pediatric cada mean study.

NOTE Confidence: 0.82081467

00:51:54.590 --> 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 --> 00:51:59.487 and then I also highlighting I I sort

NOTE Confidence: 0.82081467

00:51:59.487 --> 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 --> 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 --> 00:52:14.234 trying to use that technique to reduce

NOTE Confidence: 0.82081467

00:52:14.234 --> 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 --> 00:52:22.997 this hour and I guess to summarize them,

NOTE Confidence: 0.82081467

00:52:23.000 --> 00:52:24.855 I view the current status

NOTE Confidence: 0.82081467

00:52:24.855 --> 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 --> 00:52:33.050 of the repeated exposure component

NOTE Confidence: 0.82081467

00:52:33.050 --> 00:52:35.720 makes the risk benefit analysis

NOTE Confidence: 0.82081467

00:52:35.720 --> 00:52:37.856 really complicated to do.

NOTE Confidence: 0.82081467

00:52:37.860 --> 00:52:40.420 So the things that I think about you

NOTE Confidence: 0.82081467

00:52:40.420 --> 00:52:42.684 know folks don't fit neatly within

NOTE Confidence: 0.82081467

00:52:42.684 --> 00:52:45.012 a clinical trial is that patients

NOTE Confidence: 0.82081467

00:52:45.086 --> 00:52:47.536 should be truly treatment resistant,

NOTE Confidence: 0.82081467

00:52:47.540 --> 00:52:48.953 so carefully confirming

NOTE Confidence: 0.82081467

00:52:48.953 --> 00:52:50.837 their past treatment trials.

NOTE Confidence: 0.82081467

00:52:50.840 --> 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 --> 00:52:54.978 the benefits,

NOTE Confidence: 0.82081467

00:52:54.978 --> 00:52:58.016 and just our overall state of understanding.

NOTE Confidence: 0.82081467

00:52:58.020 --> 00:53:01.072 There needs to be direct supervision by

NOTE Confidence: 0.82081467

00:53:01.072 --> 00:53:03.297 physicians that have adequate training

NOTE Confidence: 0.82081467

00:53:03.297 --> 00:53:06.237 and having a solid follow up plan.
NOTE Confidence: 0.82081467

00:53:06.240 --> 00:53:08.904 And then the last sort of plug for
NOTE Confidence: 0.82081467

00:53:08.904 --> 00:53:11.516 the work that our group is doing.
NOTE Confidence: 0.82081467

00:53:11.520 --> 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 --> 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 --> 00:53:20.196 What kind of availability attitudes or
NOTE Confidence: 0.82081467

00:53:20.196 --> 00:53:22.080 practice parameters do they encounter?
NOTE Confidence: 0.82081467

00:53:22.080 --> 00:53:24.397 And so we really wanted to hear
NOTE Confidence: 0.82081467

00:53:24.397 --> 00:53:26.193 from providers in the Community
NOTE Confidence: 0.82081467

00:53:26.193 --> 00:53:28.762 about what do you know about these?
NOTE Confidence: 0.82081467

00:53:28.770 --> 00:53:31.938 Do you know how to refer someone to these?
NOTE Confidence: 0.82081467

00:53:31.940 --> 00:53:34.836 Do use these yourself and so you are
NOTE Confidence: 0.82081467

00:53:34.836 --> 00:53:38.124 exactly the people that we wanted to talk to.
NOTE Confidence: 0.82081467

00:53:38.130 --> 00:53:41.847 If you snap a photo of this QR code,

NOTE Confidence: 0.82081467

00:53:41.850 --> 00:53:44.328 it will take you to a survey

NOTE Confidence: 0.82081467

00:53:44.328 --> 00:53:46.800 that just asks about attitudes,

NOTE Confidence: 0.82081467

00:53:46.800 --> 00:53:48.865 availability and practice parameters of

NOTE Confidence: 0.82081467

00:53:48.865 --> 00:53:50.930 these types of treatment modalities.

NOTE Confidence: 0.82081467

00:53:50.930 --> 00:53:53.359 'cause I think we know that finding

NOTE Confidence: 0.82081467

00:53:53.359 --> 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 --> 00:54:00.020 particularly in the current climate.

NOTE Confidence: 0.82081467

00:54:00.020 --> 00:54:02.498 With COVID stretching people very thin,

NOTE Confidence: 0.82081467

00:54:02.500 --> 00:54:04.972 so looking for specialized care of

NOTE Confidence: 0.82081467

00:54:04.972 --> 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 --> 00:54:11.694 and so we'd like to see what kind

NOTE Confidence: 0.82081467

00:54:11.694 --> 00:54:14.728 of things our patients are facing.

NOTE Confidence: 0.82081467

00:54:14.730 --> 00:54:17.762 So I'm going to stop there and just

NOTE Confidence: 0.82081467

00:54:17.762 --> 00:54:20.808 say thank you so to our patients

NOTE Confidence: 0.82081467

00:54:20.808 --> 00:54:23.003 and their families to current

NOTE Confidence: 0.82081467

00:54:23.087 --> 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 --> 00:54:29.500 who have just been supportive,

NOTE Confidence: 0.82081467

00:54:29.500 --> 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 --> 00:54:34.990 but perhaps even more importantly,

NOTE Confidence: 0.82081467

00:54:34.990 --> 00:54:37.100 during the junior faculty period,

NOTE Confidence: 0.82081467

00:54:37.100 --> 00:54:38.714 which is tricky.

NOTE Confidence: 0.82081467

00:54:38.714 --> 00:54:41.942 So I really appreciate their work.

NOTE Confidence: 0.82081467

00:54:41.950 --> 00:54:42.793 In their help,

NOTE Confidence: 0.82081467

00:54:42.793 --> 00:54:43.917 and then of course,

NOTE Confidence: 0.82081467

00:54:43.920 --> 00:54:45.588 the folks that are funding the

NOTE Confidence: 0.82081467

00:54:45.588 --> 00:54:47.540 work down on the bottom left and

NOTE Confidence: 0.82081467

00:54:47.540 --> 00:54:49.360 I would be happy to take any

NOTE Confidence: 0.8813159

00:54:49.422 --> 00:54:51.782 questions or chat in the couple of minutes

NOTE Confidence: 0.8813159

00:54:51.782 --> 00:54:53.508 that we have remaining. Thank you.

NOTE Confidence: 0.80372745

00:54:59.170 --> 00:55:01.445 So thank you very much for the

NOTE Confidence: 0.80372745

00:55:01.445 --> 00:55:02.752 excellent talk. I'm actually

NOTE Confidence: 0.80372745

00:55:02.752 --> 00:55:04.708 not gonna ask a question 'cause

NOTE Confidence: 0.80372745

00:55:04.710 --> 00:55:07.310 I got stuff in chat. My

NOTE Confidence: 0.7867074

00:55:07.310 --> 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 --> 00:55:15.384 off by just calling on a future solemate

NOTE Confidence: 0.7867074

00:55:15.384 --> 00:55:17.763 Max Rowilson who had a question for

NOTE Confidence: 0.7867074

00:55:17.763 --> 00:55:19.969 you and Christiana Mills is on deck.

NOTE Confidence: 0.8635998

00:55:23.030 --> 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 --> 00:55:30.550 very impressive results.

NOTE Confidence: 0.8469991

00:55:30.550 --> 00:55:32.344 My question, many adolescents with

NOTE Confidence: 0.8469991

00:55:32.344 --> 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 --> 00:55:41.320 mind and how
NOTE Confidence: 0.8469991

00:55:41.320 --> 00:55:43.480 do you think about integrating cada
NOTE Confidence: 0.8469991

00:55:43.480 --> 00:55:45.339 mean and depression treatment when
NOTE Confidence: 0.8469991

00:55:45.339 --> 00:55:47.499 there also are these Co occurring
NOTE Confidence: 0.8469991

00:55:47.499 --> 00:55:49.301 psychiatric disorders that are likely
NOTE Confidence: 0.8469991

00:55:49.301 --> 00:55:50.650 contributing to the presentation?
NOTE Confidence: 0.8031807

00:55:54.020 --> 00:55:57.548 Yeah, I think comorbidity is a really
NOTE Confidence: 0.8031807

00:55:57.548 --> 00:56:00.704 important question and we actually are
NOTE Confidence: 0.8031807

00:56:00.704 --> 00:56:03.824 seeing this OC D depression comorbid
NOTE Confidence: 0.8031807

00:56:03.824 --> 00:56:05.544 phenotype relatively frequently
NOTE Confidence: 0.8031807

00:56:05.544 --> 00:56:08.868 in the clinical work we're doing

NOTE Confidence: 0.8031807

00:56:08.868 --> 00:56:13.130 through the pediatric TRD clinic.

NOTE Confidence: 0.8031807

00:56:13.130 --> 00:56:15.601 So I I think including those tricky

NOTE Confidence: 0.8031807

00:56:15.601 --> 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 --> 00:56:23.010 which is maybe not a good sign.

NOTE Confidence: 0.8584589

00:56:25.030 --> 00:56:28.086 But there's some data that cada mean can

NOTE Confidence: 0.8584589

00:56:28.086 --> 00:56:30.996 be helpful for OCD symptoms. Be that

NOTE Confidence: 0.8584589

00:56:30.996 --> 00:56:33.782 they would get relief in both domains.

NOTE Confidence: 0.88005775

00:56:37.490 --> 00:56:38.270 Thank you.

NOTE Confidence: 0.8381179

00:56:41.590 --> 00:56:42.745 Christiana, Europe north.

NOTE Confidence: 0.8381179

00:56:42.745 --> 00:56:45.838 Thank you. So thank you so much for

NOTE Confidence: 0.8381179

00:56:45.840 --> 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 --> 00:56:53.558 it's going to be possible to collect

NOTE Confidence: 0.8381179

00:56:53.560 --> 00:56:55.868 some information about trauma in the

NOTE Confidence: 0.8381179

00:56:55.868 --> 00:56:58.186 subjects and our clinical in our
NOTE Confidence: 0.8381179

00:56:58.186 --> 00:57:00.118 clinical population. The rate of
NOTE Confidence: 0.8381179

00:57:00.120 --> 00:57:03.202 trauma is really high and so I just
NOTE Confidence: 0.8381179

00:57:03.202 --> 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 --> 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 --> 00:57:32.564 The Childhood Trauma questionnaire.
NOTE Confidence: 0.8402469

00:57:32.564 --> 00:57:35.199 As part of our pre screening and
NOTE Confidence: 0.8402469

00:57:35.199 --> 00:57:36.939 there's no exclusion for trauma,
NOTE Confidence: 0.8402469

00:57:36.940 --> 00:57:39.551 so we think that those are appropriate
NOTE Confidence: 0.8402469

00:57:39.551 --> 00:57:41.688 patients to come to this study.
NOTE Confidence: 0.8402469

00:57:41.690 --> 00:57:43.886 Barring any of the other exclusions.
NOTE Confidence: 0.8402469

00:57:43.890 --> 00:57:47.082 But we think this could be a good

NOTE Confidence: 0.8402469

00:57:47.082 --> 00:57:50.220 fit for some of those patients.

NOTE Confidence: 0.8402469

00:57:50.220 --> 00:57:53.090 I guess I was a little curious

NOTE Confidence: 0.8948352

00:57:53.090 --> 00:57:56.594 like what is the rate of your subjects

NOTE Confidence: 0.8948352

00:57:56.594 --> 00:57:59.130 reporting some significant trauma?

NOTE Confidence: 0.8948352

00:57:59.130 --> 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 --> 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 --> 00:58:11.112 the rate was relatively low and I think

NOTE Confidence: 0.89314735

00:58:11.112 --> 00:58:14.468 part of that was an outpatient study.

NOTE Confidence: 0.89314735

00:58:14.470 --> 00:58:17.529 Many of the people that found us

NOTE Confidence: 0.89314735

00:58:17.529 --> 00:58:18.403 found us through clinicaltrials.gov.

NOTE Confidence: 0.89314735

00:58:18.410 --> 00:58:21.026 It was a more affluent population,

NOTE Confidence: 0.89314735

00:58:21.030 --> 00:58:23.646 so those rates were relatively low.

NOTE Confidence: 0.8971419

00:58:26.730 --> 00:58:29.138 We're going to work harder to get the

NOTE Confidence: 0.8971419

00:58:29.138 --> 00:58:31.380 word out for these newer studies,
NOTE Confidence: 0.8971419

00:58:31.380 --> 00:58:33.927 and so I would expect that it would be
NOTE Confidence: 0.8971419

00:58:33.927 --> 00:58:36.689 a higher rate in the upcoming study,
NOTE Confidence: 0.8971419

00:58:36.690 --> 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 --> 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 --> 00:58:55.097 a few more questions if people have them.
NOTE Confidence: 0.8762969

00:58:55.100 --> 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 --> 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 --> 00:59:14.510 That was an amazing talk really.

NOTE Confidence: 0.8259987

00:59:14.510 --> 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 --> 00:59:20.986 so proud of you.

NOTE Confidence: 0.8259987

00:59:20.986 --> 00:59:22.930 So I was wondering about the

NOTE Confidence: 0.8259987

00:59:23.006 --> 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 --> 00:59:30.050 what it is an in the population.

NOTE Confidence: 0.8259987

00:59:30.050 --> 00:59:32.866 It just made me think are there individuals

NOTE Confidence: 0.8259987

00:59:32.866 --> 00:59:35.228 out there who are self medicating?

NOTE Confidence: 0.8259987

00:59:35.230 --> 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 --> 00:59:42.127 Never thought about this before your talk

NOTE Confidence: 0.8259987

00:59:42.127 --> 00:59:44.239 and I just I just wondered about that.

NOTE Confidence: 0.88437635

00:59:45.670 --> 00:59:48.127 Yeah, I think it's a great question.

NOTE Confidence: 0.88437635

00:59:48.130 --> 00:59:50.594 We I was recently doing a conference,
NOTE Confidence: 0.88437635

00:59:50.600 --> 00:59:52.360 a virtual conference at Oxford
NOTE Confidence: 0.88437635

00:59:52.360 --> 00:59:54.516 with Academy Group and there was
NOTE Confidence: 0.88437635

00:59:54.516 --> 00:59:56.520 a presenter there that was talking
NOTE Confidence: 0.88437635

00:59:56.520 --> 00:59:58.659 about Kennedy and use patterns in
NOTE Confidence: 0.88437635

00:59:58.659 --> 01:00:00.449 various places across the globe.
NOTE Confidence: 0.88437635

01:00:00.450 --> 01:00:02.962 And we talked about this idea of whether
NOTE Confidence: 0.88437635

01:00:02.962 --> 01:00:05.188 there's a component or a proportion
NOTE Confidence: 0.88437635

01:00:05.188 --> 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 --> 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 --> 01:00:17.800 Can be a helpful thing.
NOTE Confidence: 0.88437635

01:00:17.800 --> 01:00:20.554 I would imagine that that might
NOTE Confidence: 0.88437635

01:00:20.554 --> 01:00:23.034 you know increase further and
NOTE Confidence: 0.88437635

01:00:23.034 --> 01:00:25.286 there are certainly hypotheses.

NOTE Confidence: 0.88437635

01:00:25.290 --> 01:00:27.468 About you know folks that use

NOTE Confidence: 0.88437635

01:00:27.468 --> 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 --> 01:00:32.620 so I think you know.

NOTE Confidence: 0.88437635

01:00:32.620 --> 01:00:35.065 Thinking about self medication is

NOTE Confidence: 0.88437635

01:00:35.065 --> 01:00:39.138 A is a good thing to keep in mind.

NOTE Confidence: 0.88437635

01:00:39.140 --> 01:00:39.420 And

NOTE Confidence: 0.8299319

01:00:39.420 --> 01:00:40.825 what was the original attraction

NOTE Confidence: 0.8299319

01:00:40.825 --> 01:00:42.792 as a regulation of drugs? I mean,

NOTE Confidence: 0.8299319

01:00:42.792 --> 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 --> 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 --> 01:00:54.338 just interested in altering

NOTE Confidence: 0.8954605

01:00:54.338 --> 01:00:56.323 their experience and maybe what

NOTE Confidence: 0.8954605

01:00:56.323 --> 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 --> 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: 0.843830400000001

01:01:09.000 --> 01:01:11.628 I guess I'm gonna, I think also would be
NOTE Confidence: 0.843830400000001

01:01:11.628 --> 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: 0.843830400000001

01:01:16.683 --> 01:01:18.777 were giving subjects in the study.
NOTE Confidence: 0.843830400000001

01:01:18.780 --> 01:01:21.132 Is that way there's no take home cada
NOTE Confidence: 0.843830400000001

01:01:21.132 --> 01:01:23.389 mean and fairly all the treatments or
NOTE Confidence: 0.843830400000001

01:01:23.389 --> 01:01:25.950 are given in a clinic based setting.
NOTE Confidence: 0.843830400000001

01:01:25.950 --> 01:01:27.906 And that's true of the provider.
NOTE Confidence: 0.843830400000001

01:01:27.910 --> 01:01:29.166 The FDA medication too.
NOTE Confidence: 0.843830400000001

01:01:29.166 --> 01:01:31.458 I guess I'm going to call and
NOTE Confidence: 0.843830400000001

01:01:31.458 --> 01:01:32.469 Emily Olson next.
NOTE Confidence: 0.843830400000001

01:01:32.470 --> 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 --> 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 adults in PTSD

NOTE Confidence: 0.8341726

01:01:49.419 --> 01:01:51.709 where they found that MDMA.

NOTE Confidence: 0.8599134

01:01:53.720 --> 01:01:56.144 Made it was effective when combined

NOTE Confidence: 0.8599134

01:01:56.144 --> 01:01:58.444 with therapy 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 --> 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 --> 01:02:08.880 period using in depression and kids.

NOTE Confidence: 0.8599134

01:02:08.880 --> 01:02:11.050 I was just thinking about whether

NOTE Confidence: 0.8599134

01:02:11.050 --> 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 --> 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 --> 01:02:21.690 given your expertise and you
NOTE Confidence: 0.8599134

01:02:21.690 --> 01:02:24.390 know a lot about this weather.
NOTE Confidence: 0.8599134

01:02:24.390 --> 01:02:26.376 What your thoughts were on this?
NOTE Confidence: 0.86590177

01:02:28.440 --> 01:02:30.438 And kind of what you thought
NOTE Confidence: 0.86590177

01:02:30.438 --> 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 amazing how quickly you're
NOTE Confidence: 0.86590177

01:02:35.031 --> 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 --> 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 --> 01:02:44.088 about psilocybin as well.
NOTE Confidence: 0.86590177

01:02:44.090 --> 01:02:45.605 What your thoughts are about
NOTE Confidence: 0.86590177

01:02:45.605 --> 01:02:47.562 kind of bringing these as these

NOTE Confidence: 0.86590177

01:02:47.562 --> 01:02:49.090 developments come in adults,

NOTE Confidence: 0.86590177

01:02:49.090 --> 01:02:51.752 seeing if they also help kids as well.

NOTE Confidence: 0.86590177

01:02:51.752 --> 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 --> 01:03:01.062 Question, and I think I read the same

NOTE Confidence: 0.9351715

01:03:01.062 --> 01:03:03.138 article that you did and you know,

NOTE Confidence: 0.9351715

01:03:03.140 --> 01:03:05.429 I think the folks that are studying

NOTE Confidence: 0.9351715

01:03:05.429 --> 01:03:07.905 psilocybin and maybe MDA may as well have

NOTE Confidence: 0.9351715

01:03:07.905 --> 01:03:10.010 kind of a different attitude about it

NOTE Confidence: 0.9351715

01:03:10.010 --> 01:03:12.145 than a lot of the Academy researchers.

NOTE Confidence: 0.9351715

01:03:12.150 --> 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 --> 01:03:20.780 Experience is a key part of the

NOTE Confidence: 0.9351715

01:03:20.780 --> 01:03:22.400 therapeutic ingredients for the MD,

NOTE Confidence: 0.9351715

01:03:22.400 --> 01:03:23.752 MA and psilocybin studies,
NOTE Confidence: 0.9351715

01:03:23.752 --> 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 --> 01:03:30.829 the experience as like a nuisance.
NOTE Confidence: 0.9351715

01:03:30.830 --> 01:03:32.936 And like if we could build
NOTE Confidence: 0.9351715

01:03:32.936 --> 01:03:33.989 a better mousetrap,
NOTE Confidence: 0.9351715

01:03:33.990 --> 01:03:36.090 we would not have the experience.
NOTE Confidence: 0.9351715

01:03:36.090 --> 01:03:38.505 I think even the choice of Esketamine
NOTE Confidence: 0.9351715

01:03:38.505 --> 01:03:40.299 with Janssen they thought OK,
NOTE Confidence: 0.9351715

01:03:40.300 --> 01:03:42.060 this has less dissociated stuff.
NOTE Confidence: 0.9351715

01:03:42.060 --> 01:03:44.160 It binds tighter Dan and MDA.
NOTE Confidence: 0.9351715

01:03:44.160 --> 01:03:47.000 You know the best cada mean would have
NOTE Confidence: 0.9351715

01:03:47.000 --> 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 --> 01:03:53.820 things and there's, you know,
NOTE Confidence: 0.9351715

01:03:53.820 --> 01:03:56.655 some evidence for and some against on,

NOTE Confidence: 0.9351715

01:03:56.660 --> 01:03:57.872 the dissociative experience

NOTE Confidence: 0.9351715

01:03:57.872 --> 01:03:59.488 correlating with treatment efficacy.

NOTE Confidence: 0.9351715

01:03:59.490 --> 01:04:03.135 So there's some data sort of on both sides,

NOTE Confidence: 0.9351715

01:04:03.140 --> 01:04:06.840 so in a way I think they are sort of

NOTE Confidence: 0.9351715

01:04:06.947 --> 01:04:10.425 all in this bubble of, like you know,

NOTE Confidence: 0.9351715

01:04:10.425 --> 01:04:12.045 rediscovered or newly appreciated.

NOTE Confidence: 0.9351715

01:04:12.050 --> 01:04:14.913 Medications that had some kind of stigma

NOTE Confidence: 0.9351715

01:04:14.913 --> 01:04:17.915 attached to them before that are now

NOTE Confidence: 0.9351715

01:04:17.915 --> 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 --> 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 --> 01:04:34.262 Nervous, the other types of things

NOTE Confidence: 0.8848151

01:04:34.262 --> 01:04:36.609 that really don't have a pediatric

NOTE Confidence: 0.8848151

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 --> 01:04:45.373 of the line to be doing those studies,
NOTE Confidence: 0.8848151

01:04:45.380 --> 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 --> 01:04:54.420 If someone has tried everything that we
NOTE Confidence: 0.8848151

01:04:54.420 --> 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 --> 01:05:01.838 argument that if they're really,
NOTE Confidence: 0.8848151

01:05:01.840 --> 01:05:04.000 you know, want to try something,
NOTE Confidence: 0.8848151

01:05:04.000 --> 01:05:06.520 especially in like a clinical trial context,
NOTE Confidence: 0.8848151

01:05:06.520 --> 01:05:07.248 you know.
NOTE Confidence: 0.8848151

01:05:07.248 --> 01:05:09.068 These are risk benefit discussions
NOTE Confidence: 0.8848151

01:05:09.068 --> 01:05:11.099 and reasonable people can disagree so,
NOTE Confidence: 0.8848151

01:05:11.100 --> 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 --> 01:05:17.319 and trial design and access.
NOTE Confidence: 0.83130443
01:05:24.150 --> 01:05:24.550 It.
NOTE Confidence: 0.7409805
01:05:30.370 --> 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 --> 01:05:41.281 I guess I'll step over the silence and
NOTE Confidence: 0.7409805
01:05:41.281 --> 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 --> 01:05:50.412 Let's see or I will.
NOTE Confidence: 0.7409805
01:05:50.412 --> 01:05:52.758 I think we're going to have
NOTE Confidence: 0.7409805
01:05:52.758 --> 01:05:54.999 to wrap up in a second,
NOTE Confidence: 0.7409805
01:05:55.000 --> 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 --> 01:06:01.055 the other psychedelic medications.
NOTE Confidence: 0.7409805
01:06:01.060 --> 01:06:02.560 'cause I think there's already
NOTE Confidence: 0.7409805
01:06:02.560 --> 01:06:04.689 one of the issues with cada mean.
NOTE Confidence: 0.7409805

01:06:04.690 --> 01:06:06.508 And as Academy that seem like
NOTE Confidence: 0.7409805

01:06:06.508 --> 01:06:07.720 they're very promising treatments.
NOTE Confidence: 0.7409805

01:06:07.720 --> 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 --> 01:06:19.792 if the data profile than the other
NOTE Confidence: 0.859945240000001

01:06:19.792 --> 01:06:22.053 medications at the moment or the
NOTE Confidence: 0.859945240000001

01:06:22.053 --> 01:06:24.356 drugs both in terms of efficacy and
NOTE Confidence: 0.859945240000001

01:06:24.356 --> 01:06:26.688 safety than it would really get it.
NOTE Confidence: 0.859945240000001

01:06:26.690 --> 01:06:28.755 It may. It may hurt the credibility
NOTE Confidence: 0.859945240000001

01:06:28.755 --> 01:06:31.555 of some of the research to to go
NOTE Confidence: 0.859945240000001

01:06:31.555 --> 01:06:33.035 after other stuff prematurely.
NOTE Confidence: 0.82082176

01:06:36.100 --> 01:06:38.692 And then also, there's just such a need
NOTE Confidence: 0.82082176

01:06:38.692 --> 01:06:41.718 to combine the treatments with the with
NOTE Confidence: 0.82082176

01:06:41.718 --> 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 --> 01:06:51.030 is going on strike today.

NOTE Confidence: 0.853784

01:06:52.410 --> 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 --> 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 --> 01:07:06.943 getting the things that we already know.

NOTE Confidence: 0.853784

01:07:06.943 --> 01:07:09.204 Work to the people that need them.

NOTE Confidence: 0.853784

01:07:09.210 --> 01:07:11.148 You know, a good solid psychotherapy

NOTE Confidence: 0.853784

01:07:11.148 --> 01:07:12.440 or reasonable SSRI trial.

NOTE Confidence: 0.853784

01:07:12.440 --> 01:07:14.750 I think in some ways.

NOTE Confidence: 0.853784

01:07:14.750 --> 01:07:16.913 I've taken for granted that that's you

NOTE Confidence: 0.853784

01:07:16.913 --> 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 --> 01:07:24.254 and so expanding acts.

NOTE Confidence: 0.853784

01:07:24.254 --> 01:07:26.130 To our. The.
NOTE Confidence: 0.86955242

01:07:30.290 --> 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 --> 01:07:44.160 for it holding out on us the whole time.
NOTE Confidence: 0.86955242

01:07:44.160 --> 01:07:46.589 So until now and then we could.
NOTE Confidence: 0.86955242

01:07:46.590 --> 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 --> 01:07:55.350 just went bad at the end, but.
NOTE Confidence: 0.86955242

01:07:55.350 --> 01:07:57.570 Excellent job and please feel free
NOTE Confidence: 0.86955242

01:07:57.570 --> 01:08:00.012 to email Jenny with any other OK.