

WEBVTT

NOTE duration:"00:55:44.0640000"

NOTE language:en-us

NOTE Confidence: 0.900506555

00:00:00.000 --> 00:00:02.220 My. Time.

NOTE Confidence: 0.89294636

00:00:04.880 --> 00:00:08.139 Where it's time to start, I'd like to

NOTE Confidence: 0.89294636

00:00:08.139 --> 00:00:10.857 welcome everybody to our grand rounds.

NOTE Confidence: 0.89294636

00:00:10.860 --> 00:00:14.310 Lecture today, which is titled Alcohol

NOTE Confidence: 0.89294636

00:00:14.310 --> 00:00:16.610 adaptations and stress circuits.

NOTE Confidence: 0.89294636

00:00:16.610 --> 00:00:19.762 Impact on motivation and

NOTE Confidence: 0.89294636

00:00:19.762 --> 00:00:22.126 taken treatment outcomes.

NOTE Confidence: 0.89294636

00:00:22.130 --> 00:00:24.686 Our lecture today is Rajita Sinha,

NOTE Confidence: 0.89294636

00:00:24.690 --> 00:00:26.945 who's the foundation funds professor

NOTE Confidence: 0.89294636

00:00:26.945 --> 00:00:29.200 of psychiatry professor in the

NOTE Confidence: 0.89294636

00:00:29.272 --> 00:00:31.627 child study center in neuroscience.

NOTE Confidence: 0.89294636

00:00:31.630 --> 00:00:33.785 Director of the Yale Interdisciplinary

NOTE Confidence: 0.89294636

00:00:33.785 --> 00:00:36.378 stress center, chief of the psychology

NOTE Confidence: 0.89294636

00:00:36.378 --> 00:00:38.538 section in psychiatry and Co.

NOTE Confidence: 0.89294636

00:00:38.540 --> 00:00:42.236 Director of Education for the Yale

NOTE Confidence: 0.89294636

00:00:42.236 --> 00:00:44.700 Center for clinical investigation.

NOTE Confidence: 0.89294636

00:00:44.700 --> 00:00:48.277 I want to remind everybody that during

NOTE Confidence: 0.89294636

00:00:48.277 --> 00:00:51.879 the the grand rounds presentation,

NOTE Confidence: 0.89294636

00:00:51.880 --> 00:00:56.860 please keep your microphones muted and.

NOTE Confidence: 0.89294636

00:00:56.860 --> 00:01:00.280 If you would like to have

NOTE Confidence: 0.89294636

00:01:00.280 --> 00:01:01.990 continuing education credit,

NOTE Confidence: 0.89294636

00:01:01.990 --> 00:01:06.046 Please send in the code 22126.

NOTE Confidence: 0.89294636

00:01:06.050 --> 00:01:10.514 Two, the number that's on the screen 203.

NOTE Confidence: 0.89294636

00:01:10.520 --> 00:01:18.160 4429435 26.

NOTE Confidence: 0.89294636

00:01:18.160 --> 00:01:20.530 That's right 22126.

NOTE Confidence: 0.863381055

00:01:23.100 --> 00:01:26.212 OK. I just wanted to say a little

NOTE Confidence: 0.863381055

00:01:26.212 --> 00:01:28.889 bit about Regina's background.

NOTE Confidence: 0.863381055

00:01:28.890 --> 00:01:31.464 Jeter got her bachelors at Delhi

NOTE Confidence: 0.863381055

00:01:31.464 --> 00:01:34.136 University and then went to the

NOTE Confidence: 0.863381055

00:01:34.136 --> 00:01:36.321 University of Oklahoma where she  
NOTE Confidence: 0.863381055

00:01:36.321 --> 00:01:38.990 trained with Oscar Parsons are very.  
NOTE Confidence: 0.863381055

00:01:38.990 --> 00:01:41.374 Famous cognitive neuro scientist  
NOTE Confidence: 0.863381055

00:01:41.374 --> 00:01:44.354 and psychologist really wanted The  
NOTE Confidence: 0.863381055

00:01:44.354 --> 00:01:46.915 Pioneers and the alcohol field in  
NOTE Confidence: 0.863381055

00:01:46.915 --> 00:01:49.510 that area and then came to Yale.  
NOTE Confidence: 0.8966771

00:01:52.070 --> 00:01:55.355 She's had an incredible record  
NOTE Confidence: 0.8966771

00:01:55.355 --> 00:01:57.983 of accomplishment at Yale.  
NOTE Confidence: 0.8966771

00:01:57.990 --> 00:02:00.500 1st as clinical director Ann,  
NOTE Confidence: 0.8966771

00:02:00.500 --> 00:02:02.720 then, director of the substance  
NOTE Confidence: 0.8966771

00:02:02.720 --> 00:02:04.940 abuse treatment unit at the  
NOTE Confidence: 0.8966771

00:02:05.023 --> 00:02:07.507 Connecticut mental Health Center,  
NOTE Confidence: 0.8966771

00:02:07.510 --> 00:02:10.294 founding director of the score grants  
NOTE Confidence: 0.8966771

00:02:10.294 --> 00:02:13.020 on sex differences in addiction.  
NOTE Confidence: 0.8966771

00:02:13.020 --> 00:02:15.530 Then just a remarkable achievement.  
NOTE Confidence: 0.8966771

00:02:15.530 --> 00:02:18.337 Director of an NIH road map initiative

NOTE Confidence: 0.8966771

00:02:18.337 --> 00:02:21.546 on stress of very interdisciplinary

NOTE Confidence: 0.8966771

00:02:21.546 --> 00:02:24.426 interdepartmental enormous initiative.

NOTE Confidence: 0.8966771

00:02:24.430 --> 00:02:27.174 Of which in its time was the largest

NOTE Confidence: 0.8966771

00:02:27.174 --> 00:02:30.131 grant ever awarded to a faculty member

NOTE Confidence: 0.8966771

00:02:30.131 --> 00:02:32.321 in the Department of psychiatry.

NOTE Confidence: 0.8966771

00:02:32.330 --> 00:02:34.508 And then and then from that

NOTE Confidence: 0.8966771

00:02:34.508 --> 00:02:37.336 was the founder of the Yale

NOTE Confidence: 0.8966771

00:02:37.336 --> 00:02:39.277 Interdisciplinary Stress Center,

NOTE Confidence: 0.8966771

00:02:39.280 --> 00:02:40.660 which continues today.

NOTE Confidence: 0.06845194

00:02:43.580 --> 00:02:49.284 Um? Ridgid's work is very much rooted

NOTE Confidence: 0.06845194

00:02:49.284 --> 00:02:52.560 in a clinical research on addiction.

NOTE Confidence: 0.06845194

00:02:52.560 --> 00:02:55.190 Going back to the 1990s,

NOTE Confidence: 0.06845194

00:02:55.190 --> 00:02:59.397 where she studied stress induced in cue

NOTE Confidence: 0.06845194

00:02:59.397 --> 00:03:03.350 induced craving for substances of abuse.

NOTE Confidence: 0.06845194

00:03:03.350 --> 00:03:05.815 Leading to a seminal paper

NOTE Confidence: 0.06845194

00:03:05.815 --> 00:03:08.280 that she wrote in 2001.  
NOTE Confidence: 0.06845194

00:03:08.280 --> 00:03:10.908 Asking the question how does stress  
NOTE Confidence: 0.06845194

00:03:10.908 --> 00:03:13.488 increase the risk of drug abuse  
NOTE Confidence: 0.06845194

00:03:13.488 --> 00:03:15.738 and dependence can see this is  
NOTE Confidence: 0.06845194

00:03:15.738 --> 00:03:18.758 been a theme throughout her career.  
NOTE Confidence: 0.06845194

00:03:18.760 --> 00:03:21.525 And then in the era of neuroimaging  
NOTE Confidence: 0.06845194

00:03:21.525 --> 00:03:23.330 to try to bring.  
NOTE Confidence: 0.06845194

00:03:23.330 --> 00:03:28.958 This work to the brain by characterizing  
NOTE Confidence: 0.06845194

00:03:28.958 --> 00:03:32.080 neural circuits involved in  
NOTE Confidence: 0.06845194

00:03:32.080 --> 00:03:35.578 stress an in craving an other.  
NOTE Confidence: 0.06845194

00:03:35.580 --> 00:03:38.568 Facets of self dysregulation.  
NOTE Confidence: 0.904482

00:03:40.640 --> 00:03:45.096 And then leading to a variety of important.  
NOTE Confidence: 0.904482

00:03:45.100 --> 00:03:46.819 Perspectives on treatment,  
NOTE Confidence: 0.904482

00:03:46.819 --> 00:03:50.820 including her work, going back to  
NOTE Confidence: 0.904482

00:03:50.820 --> 00:03:54.620 the 2000s of mindfulness training.  
NOTE Confidence: 0.904482

00:03:54.620 --> 00:03:56.680 And medications, including processing

NOTE Confidence: 0.904482

00:03:56.680 --> 00:03:59.255 and guanfacine and other medications.

NOTE Confidence: 0.8234802

00:04:02.930 --> 00:04:07.050 Jesus really been a leader in the field

NOTE Confidence: 0.8234802

00:04:07.050 --> 00:04:10.865 serving on the NI AAA council she is.

NOTE Confidence: 0.8234802

00:04:10.870 --> 00:04:12.780 Been nominated for the night

NOTE Confidence: 0.8234802

00:04:12.780 --> 00:04:15.468 at Council and she served as an

NOTE Confidence: 0.8234802

00:04:15.468 --> 00:04:17.586 advisor in a variety of different

NOTE Confidence: 0.8234802

00:04:17.586 --> 00:04:20.070 variety of different organizations.

NOTE Confidence: 0.8234802

00:04:20.070 --> 00:04:24.300 She's also a very visible person.

NOTE Confidence: 0.8234802

00:04:24.300 --> 00:04:28.287 Often contacted by the press or for TV shows.

NOTE Confidence: 0.84991026

00:04:30.310 --> 00:04:32.518 She's received a number of honors.

NOTE Confidence: 0.84991026

00:04:32.520 --> 00:04:34.360 I just list 2 here.

NOTE Confidence: 0.84991026

00:04:34.360 --> 00:04:37.072 One is the chairman's award from

NOTE Confidence: 0.84991026

00:04:37.072 --> 00:04:39.930 the L Department of psychiatry.

NOTE Confidence: 0.84991026

00:04:39.930 --> 00:04:41.010 Now unbelievably,

NOTE Confidence: 0.84991026

00:04:41.010 --> 00:04:44.790 20 years ago for 20 years ago

NOTE Confidence: 0.84991026

00:04:44.790 --> 00:04:48.180 and and this year, of course,  
NOTE Confidence: 0.84991026

00:04:48.180 --> 00:04:50.700 she received the Distinguished  
NOTE Confidence: 0.84991026

00:04:50.700 --> 00:04:53.220 Researcher Award from the  
NOTE Confidence: 0.84991026

00:04:53.322 --> 00:04:56.238 research society on alcoholism.  
NOTE Confidence: 0.84991026

00:04:56.240 --> 00:04:58.320 So without further ado,  
NOTE Confidence: 0.84991026

00:04:58.320 --> 00:05:01.440 then it's a tremendous pleasure to  
NOTE Confidence: 0.84991026

00:05:01.536 --> 00:05:04.818 welcome Riggi to Sinha to present  
NOTE Confidence: 0.84991026

00:05:04.818 --> 00:05:07.640 our Department grand rounds today.  
NOTE Confidence: 0.86632496

00:05:10.370 --> 00:05:12.290 Thank you so much John.  
NOTE Confidence: 0.86632496

00:05:12.290 --> 00:05:14.880 That was I didn't realize you would  
NOTE Confidence: 0.86632496

00:05:14.880 --> 00:05:17.280 actually go back to the beginning.  
NOTE Confidence: 0.86632496

00:05:17.280 --> 00:05:21.459 It does feel like a long time.  
NOTE Confidence: 0.86632496

00:05:21.460 --> 00:05:24.134 Many of folks that are still here  
NOTE Confidence: 0.86632496

00:05:24.134 --> 00:05:26.839 and others have not been our newer,  
NOTE Confidence: 0.86632496

00:05:26.840 --> 00:05:29.514 but yeah, it has been 30 years,  
NOTE Confidence: 0.86632496

00:05:29.520 --> 00:05:31.698 so it's a It's a pleasure

NOTE Confidence: 0.86632496  
00:05:31.698 --> 00:05:34.129 to speak to you all today,  
NOTE Confidence: 0.86632496  
00:05:34.130 --> 00:05:35.666 even though it's unzoom.  
NOTE Confidence: 0.86632496  
00:05:35.666 --> 00:05:37.970 Guess I should share my screen.  
NOTE Confidence: 0.86632496  
00:05:37.970 --> 00:05:40.280 Let me see if I can.  
NOTE Confidence: 0.87839776  
00:05:43.690 --> 00:05:46.078 You don't see that.  
NOTE Confidence: 0.87839776  
00:05:46.080 --> 00:05:48.000 OK great. Well thank you.  
NOTE Confidence: 0.87839776  
00:05:48.000 --> 00:05:49.920 So let me get started.  
NOTE Confidence: 0.87839776  
00:05:49.920 --> 00:05:52.216 As John said, I've been sort of  
NOTE Confidence: 0.87839776  
00:05:52.216 --> 00:05:54.606 interested in the in studying the  
NOTE Confidence: 0.87839776  
00:05:54.606 --> 00:05:56.826 intersection of stress and addiction.  
NOTE Confidence: 0.87839776  
00:05:56.830 --> 00:05:59.518 An in fact as we consider this.  
NOTE Confidence: 0.87839776  
00:05:59.520 --> 00:06:03.874 So let me see why I'm not.  
NOTE Confidence: 0.87839776  
00:06:03.880 --> 00:06:04.789 Here we go.  
NOTE Confidence: 0.87839776  
00:06:04.789 --> 00:06:06.607 There has been it's well known  
NOTE Confidence: 0.87839776  
00:06:06.607 --> 00:06:08.866 that there is this bidirectional  
NOTE Confidence: 0.87839776



00:06:08.866 --> 00:06:10.750 relationship between stress and  
NOTE Confidence: 0.87839776

00:06:10.750 --> 00:06:13.380 addiction and really stress and reward.  
NOTE Confidence: 0.87839776

00:06:13.380 --> 00:06:15.760 And one simple way of thinking about  
NOTE Confidence: 0.87839776

00:06:15.760 --> 00:06:18.655 it is that when you have increased  
NOTE Confidence: 0.87839776

00:06:18.655 --> 00:06:20.905 stress or a traumatic situation,  
NOTE Confidence: 0.87839776

00:06:20.910 --> 00:06:23.675 there might be an increase in reward,  
NOTE Confidence: 0.87839776

00:06:23.680 --> 00:06:25.316 particularly in vulnerable individuals.  
NOTE Confidence: 0.87839776

00:06:25.316 --> 00:06:28.203 So by that I mean that high  
NOTE Confidence: 0.87839776

00:06:28.203 --> 00:06:30.018 stress and anxiety states may  
NOTE Confidence: 0.87839776

00:06:30.018 --> 00:06:32.000 enhance the sense of reward.  
NOTE Confidence: 0.87839776

00:06:32.000 --> 00:06:34.100 If when you're engaging in.  
NOTE Confidence: 0.87839776

00:06:34.100 --> 00:06:36.626 Any kind of rewarding behavior an  
NOTE Confidence: 0.87839776

00:06:36.626 --> 00:06:39.560 and then a number of people started  
NOTE Confidence: 0.87839776

00:06:39.560 --> 00:06:42.276 to look at and talk about the  
NOTE Confidence: 0.87839776

00:06:42.361 --> 00:06:45.168 impact of drugs on stress as well,  
NOTE Confidence: 0.87839776

00:06:45.170 --> 00:06:46.810 and therefore that bidirectional

NOTE Confidence: 0.87839776

00:06:46.810 --> 00:06:48.270 relationship, and in fact,

NOTE Confidence: 0.87839776

00:06:48.270 --> 00:06:50.370 as we think about number of

NOTE Confidence: 0.87839776

00:06:50.370 --> 00:06:52.549 rewarding substances and behaviors.

NOTE Confidence: 0.87839776

00:06:52.550 --> 00:06:53.370 This relate.

NOTE Confidence: 0.87839776

00:06:53.370 --> 00:06:54.190 Bidirectional relationship

NOTE Confidence: 0.87839776

00:06:54.190 --> 00:06:55.420 has been discussed.

NOTE Confidence: 0.87839776

00:06:55.420 --> 00:06:58.044 We are in the period of covid stress

NOTE Confidence: 0.87839776

00:06:58.044 --> 00:07:01.028 and there is increasing attention to the

NOTE Confidence: 0.87839776

00:07:01.028 --> 00:07:03.799 fact that Americans are drinking more

NOTE Confidence: 0.87839776

00:07:03.799 --> 00:07:06.499 amid the COVID-19 pandemic and experts

NOTE Confidence: 0.87839776

00:07:06.499 --> 00:07:08.879 warning that relief may be temporary,

NOTE Confidence: 0.87839776

00:07:08.879 --> 00:07:10.937 and there may be issues related

NOTE Confidence: 0.87839776

00:07:10.937 --> 00:07:12.800 to greater vulnerability,

NOTE Confidence: 0.87839776

00:07:12.800 --> 00:07:14.444 especially for those who

NOTE Confidence: 0.87839776

00:07:14.444 --> 00:07:15.677 have the susceptibility.

NOTE Confidence: 0.87839776

00:07:15.680 --> 00:07:16.502 In fact,  
NOTE Confidence: 0.87839776

00:07:16.502 --> 00:07:18.146 as we can imagine,  
NOTE Confidence: 0.87839776

00:07:18.150 --> 00:07:20.604 because bars were closed and access  
NOTE Confidence: 0.87839776

00:07:20.604 --> 00:07:23.510 was limited on side sales were down,  
NOTE Confidence: 0.87839776

00:07:23.510 --> 00:07:25.976 but ecommerce profits have increased 30%.  
NOTE Confidence: 0.87839776

00:07:25.980 --> 00:07:28.662 The beverage industry is sort of  
NOTE Confidence: 0.87839776

00:07:28.662 --> 00:07:31.395 out there talking about the fact  
NOTE Confidence: 0.87839776

00:07:31.395 --> 00:07:33.981 that their sales overall is not  
NOTE Confidence: 0.87839776

00:07:33.981 --> 00:07:36.806 increased and so they should be  
NOTE Confidence: 0.87839776

00:07:36.806 --> 00:07:39.156 some caution around worrying about.  
NOTE Confidence: 0.87839776

00:07:39.160 --> 00:07:41.152 About these increases an.  
NOTE Confidence: 0.87839776

00:07:41.152 --> 00:07:44.140 In fact the dialogue around that  
NOTE Confidence: 0.87839776

00:07:44.230 --> 00:07:47.114 with them an at The Who level  
NOTE Confidence: 0.87839776

00:07:47.114 --> 00:07:49.625 worldwide has been who's most  
NOTE Confidence: 0.87839776

00:07:49.625 --> 00:07:51.993 susceptible to these increased  
NOTE Confidence: 0.87839776

00:07:51.993 --> 00:07:54.910 drinking episodes an during covid.

NOTE Confidence: 0.87839776  
00:07:54.910 --> 00:07:58.150 So I think this particular topic  
NOTE Confidence: 0.87839776  
00:07:58.150 --> 00:08:00.443 is particularly is especially  
NOTE Confidence: 0.87839776  
00:08:00.443 --> 00:08:03.875 relevant in the period of Covid.  
NOTE Confidence: 0.87839776  
00:08:03.880 --> 00:08:06.162 So let me just talk about what  
NOTE Confidence: 0.87839776  
00:08:06.162 --> 00:08:08.210 I want to cover today.  
NOTE Confidence: 0.87839776  
00:08:08.210 --> 00:08:10.020 Disruption of the stress circuits,  
NOTE Confidence: 0.87839776  
00:08:10.020 --> 00:08:11.448 particularly the coping stress  
NOTE Confidence: 0.87839776  
00:08:11.448 --> 00:08:13.233 resilient coping circuit as a  
NOTE Confidence: 0.87839776  
00:08:13.233 --> 00:08:14.709 target pathway for alcohol,  
NOTE Confidence: 0.87839776  
00:08:14.710 --> 00:08:17.150 compulsive seeking or drug  
NOTE Confidence: 0.87839776  
00:08:17.150 --> 00:08:18.370 compulsive seeking.  
NOTE Confidence: 0.87839776  
00:08:18.370 --> 00:08:20.550 Binge alcohol use and disruption  
NOTE Confidence: 0.87839776  
00:08:20.550 --> 00:08:22.294 of the neuroendocrine response  
NOTE Confidence: 0.87839776  
00:08:22.294 --> 00:08:24.260 to stress and to alcohol.  
NOTE Confidence: 0.87839776  
00:08:24.260 --> 00:08:25.836 Alcohol related changes in  
NOTE Confidence: 0.87839776

00:08:25.836 --> 00:08:27.412 stress pathways that predict  
NOTE Confidence: 0.87839776

00:08:27.412 --> 00:08:29.319 relapse and treatment outcome.  
NOTE Confidence: 0.87839776

00:08:29.320 --> 00:08:31.444 And can we target this particular  
NOTE Confidence: 0.87839776

00:08:31.444 --> 00:08:33.888 what I like to call stress  
NOTE Confidence: 0.87839776

00:08:33.888 --> 00:08:36.253 pathophysiology of alcohol to address  
NOTE Confidence: 0.87839776

00:08:36.253 --> 00:08:39.150 to improve our treatment outcomes.  
NOTE Confidence: 0.87839776

00:08:39.150 --> 00:08:41.210 So we know of course,  
NOTE Confidence: 0.87839776

00:08:41.210 --> 00:08:44.262 that there is this dopamine rich region  
NOTE Confidence: 0.87839776

00:08:44.262 --> 00:08:46.906 circuitry that is called the reward  
NOTE Confidence: 0.87839776

00:08:46.906 --> 00:08:49.426 circuitry in the brain going from  
NOTE Confidence: 0.87839776

00:08:49.426 --> 00:08:52.295 the VTA to the connections to the Pfc,  
NOTE Confidence: 0.87839776

00:08:52.300 --> 00:08:53.446 the nucleus accumbens,  
NOTE Confidence: 0.87839776

00:08:53.446 --> 00:08:55.738 or ventral striatum is been sort  
NOTE Confidence: 0.87839776

00:08:55.738 --> 00:08:57.886 of expanded into the dorsal  
NOTE Confidence: 0.87839776

00:08:57.886 --> 00:09:00.001 striatum for the dopamine rich  
NOTE Confidence: 0.87839776

00:09:00.001 --> 00:09:02.167 regions and the reward circuitry.

NOTE Confidence: 0.87839776  
00:09:02.170 --> 00:09:05.194 So of course the and is beautiful  
NOTE Confidence: 0.87839776  
00:09:05.194 --> 00:09:07.950 data showing that this in fact  
NOTE Confidence: 0.87839776  
00:09:07.950 --> 00:09:10.230 circuit is activated when you.  
NOTE Confidence: 0.87839776  
00:09:10.230 --> 00:09:11.340 Participate in dude.  
NOTE Confidence: 0.85015875  
00:09:13.460 --> 00:09:15.004 Rewarding behavior whether it's  
NOTE Confidence: 0.85015875  
00:09:15.004 --> 00:09:17.320 in imbibing a substance or a  
NOTE Confidence: 0.85015875  
00:09:17.386 --> 00:09:19.510 rewarding behavior like gambling.  
NOTE Confidence: 0.85015875  
00:09:19.510 --> 00:09:21.670 What about stress related motivation?  
NOTE Confidence: 0.85015875  
00:09:21.670 --> 00:09:24.256 Before there were drugs of abuse,  
NOTE Confidence: 0.85015875  
00:09:24.260 --> 00:09:25.988 we obviously have this.  
NOTE Confidence: 0.85015875  
00:09:25.988 --> 00:09:28.580 This reward pathway in the brain.  
NOTE Confidence: 0.85015875  
00:09:28.580 --> 00:09:32.468 And what is it for really is one question,  
NOTE Confidence: 0.85015875  
00:09:32.470 --> 00:09:35.494 and in fact it's embedded hardwired for  
NOTE Confidence: 0.85015875  
00:09:35.494 --> 00:09:37.288 social reinforcement, social reward,  
NOTE Confidence: 0.85015875  
00:09:37.288 --> 00:09:40.536 natural rewards as well as if you  
NOTE Confidence: 0.85015875

00:09:40.536 --> 00:09:43.888 have to run when you're faced with a.  
NOTE Confidence: 0.85015875

00:09:43.890 --> 00:09:45.574 With the you know,  
NOTE Confidence: 0.85015875

00:09:45.574 --> 00:09:47.679 aversive stimulus like large animal  
NOTE Confidence: 0.85015875

00:09:47.679 --> 00:09:50.098 that looks like a Tiger perhaps,  
NOTE Confidence: 0.85015875

00:09:50.100 --> 00:09:52.578 or something it really scared of.  
NOTE Confidence: 0.85015875

00:09:52.580 --> 00:09:54.268 You need to mobilize.  
NOTE Confidence: 0.85015875

00:09:54.268 --> 00:09:57.969 You need to know firstly that that this is.  
NOTE Confidence: 0.85015875

00:09:57.970 --> 00:10:00.110 This is a difficult situation.  
NOTE Confidence: 0.85015875

00:10:00.110 --> 00:10:02.454 Then you got to move and run and  
NOTE Confidence: 0.85015875

00:10:02.454 --> 00:10:04.535 just this pathway is very involved  
NOTE Confidence: 0.85015875

00:10:04.535 --> 00:10:07.124 in that it connects to the motor  
NOTE Confidence: 0.85015875

00:10:07.124 --> 00:10:09.039 regions and is important in  
NOTE Confidence: 0.85015875

00:10:09.039 --> 00:10:10.933 intent even in stress conditions.  
NOTE Confidence: 0.85015875

00:10:10.933 --> 00:10:14.110 Well, I can say that but let me show  
NOTE Confidence: 0.85015875

00:10:14.193 --> 00:10:16.641 you what we did and this is now a  
NOTE Confidence: 0.85015875

00:10:16.641 --> 00:10:19.425 few years ago we wanted to understand

NOTE Confidence: 0.85015875  
00:10:19.425 --> 00:10:21.638 what does this stress system have  
NOTE Confidence: 0.85015875  
00:10:21.638 --> 00:10:23.990 to do with this sort of coping and  
NOTE Confidence: 0.85015875  
00:10:24.055 --> 00:10:25.588 stress coping circuitry.  
NOTE Confidence: 0.85015875  
00:10:25.590 --> 00:10:27.684 So we designed a study where  
NOTE Confidence: 0.85015875  
00:10:27.684 --> 00:10:29.080 we showed really awful,  
NOTE Confidence: 0.85015875  
00:10:29.080 --> 00:10:30.166 aversive, threatening,  
NOTE Confidence: 0.85015875  
00:10:30.166 --> 00:10:32.338 challenging pictures in blocks.  
NOTE Confidence: 0.85015875  
00:10:32.340 --> 00:10:34.566 And those were the stress blocks compared  
NOTE Confidence: 0.85015875  
00:10:34.566 --> 00:10:36.890 it to relaxing non stressful pictures.  
NOTE Confidence: 0.85015875  
00:10:36.890 --> 00:10:39.320 And that was the neutral blocking  
NOTE Confidence: 0.85015875  
00:10:39.320 --> 00:10:40.940 these community volunteers and  
NOTE Confidence: 0.85015875  
00:10:41.004 --> 00:10:42.838 we got a very nice rise here.  
NOTE Confidence: 0.85015875  
00:10:42.840 --> 00:10:45.472 You can see in Stressfulness on a 9  
NOTE Confidence: 0.85015875  
00:10:45.472 --> 00:10:47.600 point scale that was sustained across  
NOTE Confidence: 0.85015875  
00:10:47.600 --> 00:10:50.190 the period from R1 to R6 years.  
NOTE Confidence: 0.85015875



00:10:50.190 --> 00:10:52.116 The period of being exposed to  
NOTE Confidence: 0.85015875

00:10:52.116 --> 00:10:54.162 the Stressor there was really high  
NOTE Confidence: 0.85015875

00:10:54.162 --> 00:10:56.238 arousal and there was an increase  
NOTE Confidence: 0.85015875

00:10:56.238 --> 00:10:57.540 in cortisol response.  
NOTE Confidence: 0.85015875

00:10:57.540 --> 00:11:00.816 The main point I want to make here is  
NOTE Confidence: 0.85015875

00:11:00.816 --> 00:11:03.538 there's a lot going on in the brain.  
NOTE Confidence: 0.85015875

00:11:03.540 --> 00:11:05.370 At when you see red yellow,  
NOTE Confidence: 0.85015875

00:11:05.370 --> 00:11:07.533 it means that those regions of the  
NOTE Confidence: 0.85015875

00:11:07.533 --> 00:11:09.507 brain were activated an in addition to  
NOTE Confidence: 0.85015875

00:11:09.507 --> 00:11:11.780 the amygdala in the in the hypothalamus.  
NOTE Confidence: 0.85015875

00:11:11.780 --> 00:11:13.756 The key thing I want to show you  
NOTE Confidence: 0.85015875

00:11:13.756 --> 00:11:15.742 is the striatum is really highly  
NOTE Confidence: 0.85015875

00:11:15.742 --> 00:11:17.872 lit up and very much involved,  
NOTE Confidence: 0.85015875

00:11:17.880 --> 00:11:19.620 as is the insula,  
NOTE Confidence: 0.85015875

00:11:19.620 --> 00:11:23.120 because you're getting a lot of internal.  
NOTE Confidence: 0.85015875

00:11:23.120 --> 00:11:25.430 Perceptual need coming up and signaling.

NOTE Confidence: 0.85015875

00:11:25.430 --> 00:11:28.574 Coming up from the body in terms of

NOTE Confidence: 0.85015875

00:11:28.574 --> 00:11:31.052 being stressed out and then what you

NOTE Confidence: 0.85015875

00:11:31.052 --> 00:11:34.030 see here in blue is this region of

NOTE Confidence: 0.85015875

00:11:34.030 --> 00:11:36.598 what we call the ventromedial Pfc.

NOTE Confidence: 0.85015875

00:11:36.600 --> 00:11:39.274 You're going to hear me talk about

NOTE Confidence: 0.85015875

00:11:39.274 --> 00:11:42.370 that quite a bit, so that going down,

NOTE Confidence: 0.85015875

00:11:42.370 --> 00:11:43.910 being blooming deactivated initially,

NOTE Confidence: 0.85015875

00:11:43.910 --> 00:11:46.605 and this is the dorsal ACC involved

NOTE Confidence: 0.85015875

00:11:46.605 --> 00:11:48.530 instead of intent, an action,

NOTE Confidence: 0.85015875

00:11:48.530 --> 00:11:50.840 and when because we were doing

NOTE Confidence: 0.85015875

00:11:50.840 --> 00:11:51.610 concurrent cortisol,

NOTE Confidence: 0.85015875

00:11:51.610 --> 00:11:53.540 you can see the circuitry.

NOTE Confidence: 0.85015875

00:11:53.540 --> 00:11:56.336 This is a whole brain cortisol.

NOTE Confidence: 0.85015875

00:11:56.340 --> 00:11:58.532 Map and what you can see is that

NOTE Confidence: 0.85015875

00:11:58.532 --> 00:12:00.595 in fact the ventral striatum

NOTE Confidence: 0.85015875

00:12:00.595 --> 00:12:02.995 extending into the dorsal striatum.  
NOTE Confidence: 0.85015875

00:12:03.000 --> 00:12:04.040 The hypothalamus,  
NOTE Confidence: 0.85015875

00:12:04.040 --> 00:12:06.640 amygdala are all positively correlated.  
NOTE Confidence: 0.85015875

00:12:06.640 --> 00:12:10.040 Whoops with cortisol and the  
NOTE Confidence: 0.85015875

00:12:10.040 --> 00:12:12.140 ventromedial Pfc that blunting is  
NOTE Confidence: 0.85015875

00:12:12.140 --> 00:12:13.921 negatively correlated an then the  
NOTE Confidence: 0.85015875

00:12:13.921 --> 00:12:16.273 key thing here that I wanted to  
NOTE Confidence: 0.85015875

00:12:16.273 --> 00:12:18.295 show you is that there's actually  
NOTE Confidence: 0.85015875

00:12:18.295 --> 00:12:20.405 a dynamic change going on during  
NOTE Confidence: 0.85015875

00:12:20.405 --> 00:12:22.230 those runs that we had,  
NOTE Confidence: 0.85015875

00:12:22.230 --> 00:12:24.066 and in fact the key regions  
NOTE Confidence: 0.85015875

00:12:24.066 --> 00:12:25.290 where there was a  
NOTE Confidence: 0.8547592

00:12:25.360 --> 00:12:27.195 mobilization and you might recall  
NOTE Confidence: 0.8547592

00:12:27.195 --> 00:12:30.259 this was blue in the ventromedial Pfc.  
NOTE Confidence: 0.8547592

00:12:30.260 --> 00:12:32.479 You start to see that start to  
NOTE Confidence: 0.8547592

00:12:32.479 --> 00:12:34.753 come back up and the ventral

NOTE Confidence: 0.8547592

00:12:34.753 --> 00:12:36.828 striatum also coming back up.

NOTE Confidence: 0.8547592

00:12:36.830 --> 00:12:38.710 So really perhaps the region.

NOTE Confidence: 0.8547592

00:12:38.710 --> 00:12:40.782 The reward coping region is sort of

NOTE Confidence: 0.8547592

00:12:40.782 --> 00:12:42.830 mobilizing and we started to call

NOTE Confidence: 0.8547592

00:12:42.830 --> 00:12:44.670 this the resilient coping circuitry

NOTE Confidence: 0.8547592

00:12:44.670 --> 00:12:46.590 mainly because that dynamic change

NOTE Confidence: 0.8547592

00:12:46.590 --> 00:12:48.460 during stress was associated with

NOTE Confidence: 0.8547592

00:12:48.460 --> 00:12:50.610 active coping on the Cope scale

NOTE Confidence: 0.8547592

00:12:50.610 --> 00:12:52.360 which subjects had had completed

NOTE Confidence: 0.8547592

00:12:52.360 --> 00:12:55.138 that and also how they cope with

NOTE Confidence: 0.8547592

00:12:55.138 --> 00:12:56.714 stress in different questionnaires

NOTE Confidence: 0.8547592

00:12:56.783 --> 00:12:59.119 and what we found is that people who

NOTE Confidence: 0.8547592

00:12:59.119 --> 00:13:01.430 would not able to show the dynamic

NOTE Confidence: 0.8547592

00:13:01.430 --> 00:13:03.941 response in fact were those who are

NOTE Confidence: 0.8547592

00:13:03.941 --> 00:13:06.089 more likely to have higher scores

NOTE Confidence: 0.8547592

00:13:06.089 --> 00:13:08.248 on emotional eating or those who  
NOTE Confidence: 0.8547592

00:13:08.248 --> 00:13:10.312 are reporting that they tend to.  
NOTE Confidence: 0.8547592

00:13:10.320 --> 00:13:13.078 Have more arguments and fights sort of  
NOTE Confidence: 0.8547592

00:13:13.078 --> 00:13:15.289 have emotion dysregulation and lashing out,  
NOTE Confidence: 0.8547592

00:13:15.290 --> 00:13:17.195 and with those who happened  
NOTE Confidence: 0.8547592

00:13:17.195 --> 00:13:18.719 to be binge drinkers,  
NOTE Confidence: 0.8547592

00:13:18.720 --> 00:13:21.100 so that allowed us to sort of  
NOTE Confidence: 0.8547592

00:13:21.100 --> 00:13:23.459 extend into our sort of speculation  
NOTE Confidence: 0.8547592

00:13:23.459 --> 00:13:25.979 that this indeed is an active,  
NOTE Confidence: 0.8547592

00:13:25.980 --> 00:13:27.126 resilient coping circuitry.  
NOTE Confidence: 0.8547592

00:13:27.126 --> 00:13:29.418 So we identify this as yes,  
NOTE Confidence: 0.8547592

00:13:29.420 --> 00:13:31.580 it's one that's activated by drugs  
NOTE Confidence: 0.8547592

00:13:31.580 --> 00:13:33.620 of abuse and natural rewards,  
NOTE Confidence: 0.8547592

00:13:33.620 --> 00:13:36.257 but it is really one that is an active  
NOTE Confidence: 0.8547592

00:13:36.257 --> 00:13:38.969 coping motivation circuit that's important.  
NOTE Confidence: 0.8547592

00:13:38.970 --> 00:13:40.578 Inflexible control of behavior.

NOTE Confidence: 0.8547592  
00:13:40.578 --> 00:13:42.588 So we started to think  
NOTE Confidence: 0.8547592  
00:13:42.588 --> 00:13:44.360 more broadly about well,  
NOTE Confidence: 0.8547592  
00:13:44.360 --> 00:13:46.240 so the dopamine rich regions  
NOTE Confidence: 0.8547592  
00:13:46.240 --> 00:13:48.610 are activated by drugs of abuse.  
NOTE Confidence: 0.8547592  
00:13:48.610 --> 00:13:50.150 What about other regions?  
NOTE Confidence: 0.8547592  
00:13:50.150 --> 00:13:52.075 And of course other systems.  
NOTE Confidence: 0.8547592  
00:13:52.080 --> 00:13:55.554 And in fact, here's a data by Nancy Mellow.  
NOTE Confidence: 0.8547592  
00:13:55.560 --> 00:13:58.968 Put it put together in a review paper  
NOTE Confidence: 0.8547592  
00:13:58.968 --> 00:14:01.948 showing that high nicotine cigarette.  
NOTE Confidence: 0.8547592  
00:14:01.950 --> 00:14:03.900 Dramatically activates the HPA Axis.  
NOTE Confidence: 0.8547592  
00:14:03.900 --> 00:14:07.020 ACTH cortisol as well as an origin ergic,  
NOTE Confidence: 0.8547592  
00:14:07.020 --> 00:14:07.820 Arousal Annular,  
NOTE Confidence: 0.8547592  
00:14:07.820 --> 00:14:08.620 active steroids,  
NOTE Confidence: 0.8547592  
00:14:08.620 --> 00:14:12.088 and so this started to help us think about.  
NOTE Confidence: 0.8547592  
00:14:12.090 --> 00:14:12.480 Well,  
NOTE Confidence: 0.8547592

00:14:12.480 --> 00:14:14.820 there's more going on than the  
NOTE Confidence: 0.8547592

00:14:14.820 --> 00:14:15.990 dopamine rich regions.  
NOTE Confidence: 0.8547592

00:14:15.990 --> 00:14:17.940 When you think about alcohol,  
NOTE Confidence: 0.8547592

00:14:17.940 --> 00:14:20.670 some of this data is now published.  
NOTE Confidence: 0.8547592

00:14:20.670 --> 00:14:23.670 What you see here is that heavy drinkers  
NOTE Confidence: 0.8547592

00:14:23.670 --> 00:14:26.518 binge heavy drinkers in the light greys,  
NOTE Confidence: 0.8547592

00:14:26.520 --> 00:14:27.690 a light, moderate,  
NOTE Confidence: 0.8547592

00:14:27.690 --> 00:14:28.470 non bingers,  
NOTE Confidence: 0.8547592

00:14:28.470 --> 00:14:30.465 but binge heavy drinkers just  
NOTE Confidence: 0.8547592

00:14:30.465 --> 00:14:32.460 basically show a shift and.  
NOTE Confidence: 0.8547592

00:14:32.460 --> 00:14:34.245 Increase in their cortisol levels  
NOTE Confidence: 0.8547592

00:14:34.245 --> 00:14:36.851 so that starts to show that that  
NOTE Confidence: 0.8547592

00:14:36.851 --> 00:14:38.731 by the biological stress response  
NOTE Confidence: 0.8547592

00:14:38.731 --> 00:14:41.078 is adapting and changing as a  
NOTE Confidence: 0.8547592

00:14:41.078 --> 00:14:42.610 function of active drinking.  
NOTE Confidence: 0.8547592

00:14:42.610 --> 00:14:44.866 These folks are not stopping there,

NOTE Confidence: 0.8547592

00:14:44.870 --> 00:14:46.750 just regular binge heavy drinkers.

NOTE Confidence: 0.8547592

00:14:46.750 --> 00:14:48.358 They're not dependent,

NOTE Confidence: 0.8547592

00:14:48.358 --> 00:14:52.110 and you see that in two separate.

NOTE Confidence: 0.8547592

00:14:52.110 --> 00:14:55.335 Who has recommitted onescu so we

NOTE Confidence: 0.8547592

00:14:55.335 --> 00:14:59.368 then did a study where we expose

NOTE Confidence: 0.8547592

00:14:59.368 --> 00:15:02.433 people on three separate days

NOTE Confidence: 0.8547592

00:15:02.433 --> 00:15:05.759 to either stressed skew alcohol.

NOTE Confidence: 0.8547592

00:15:05.760 --> 00:15:08.154 Q Al correlated trigger or a neutral

NOTE Confidence: 0.8547592

00:15:08.154 --> 00:15:10.660 Q and then we presented them with

NOTE Confidence: 0.8547592

00:15:10.660 --> 00:15:13.619 what we call what we what is well

NOTE Confidence: 0.8547592

00:15:13.619 --> 00:15:15.977 known in the alcohol literature as

NOTE Confidence: 0.8547592

00:15:15.977 --> 00:15:18.458 the alcohol taste test which is

NOTE Confidence: 0.8547592

00:15:18.458 --> 00:15:20.990 2 beers are shown and individuals

NOTE Confidence: 0.8547592

00:15:21.069 --> 00:15:22.979 are asked to taste them.

NOTE Confidence: 0.8547592

00:15:22.980 --> 00:15:24.948 To determine whether they are the

NOTE Confidence: 0.8547592



00:15:24.948 --> 00:15:28.008 same brand or the same type or different an,  
NOTE Confidence: 0.8547592

00:15:28.010 --> 00:15:29.685 we call this an implicit  
NOTE Confidence: 0.8547592

00:15:29.685 --> 00:15:30.690 alcohol motivation test.  
NOTE Confidence: 0.8547592

00:15:30.690 --> 00:15:32.540 Alan Marlatt developed it and  
NOTE Confidence: 0.8547592

00:15:32.540 --> 00:15:34.746 essentially what you find is that  
NOTE Confidence: 0.8547592

00:15:34.746 --> 00:15:36.755 people and we tell them you can  
NOTE Confidence: 0.8547592

00:15:36.755 --> 00:15:39.396 drink as much as you need to to  
NOTE Confidence: 0.8547592

00:15:39.396 --> 00:15:40.395 make that determination,  
NOTE Confidence: 0.8655359

00:15:40.400 --> 00:15:42.410 they get \$10 for doing it,  
NOTE Confidence: 0.8655359

00:15:42.410 --> 00:15:44.972 so there were three separate days where  
NOTE Confidence: 0.8655359

00:15:44.972 --> 00:15:47.732 they got either alcohol Q or stress Q  
NOTE Confidence: 0.8655359

00:15:47.732 --> 00:15:50.316 or neutral Q Context prior to the tray  
NOTE Confidence: 0.8655359

00:15:50.316 --> 00:15:52.769 with the two drinks showing up and then.  
NOTE Confidence: 0.8655359

00:15:52.769 --> 00:15:55.241 They get to drink it for 10 minutes  
NOTE Confidence: 0.8655359

00:15:55.241 --> 00:15:57.479 and then we're monitoring them.  
NOTE Confidence: 0.8655359

00:15:57.480 --> 00:15:59.846 The key thing is that quite reliably,

NOTE Confidence: 0.8655359

00:15:59.850 --> 00:16:01.550 now in two separate studies,

NOTE Confidence: 0.8655359

00:16:01.550 --> 00:16:03.518 we find that binge heavy drinkers

NOTE Confidence: 0.8655359

00:16:03.518 --> 00:16:05.864 in this is similar to what Alan

NOTE Confidence: 0.8655359

00:16:05.864 --> 00:16:07.796 Marlatt had shown will consume more

NOTE Confidence: 0.8655359

00:16:07.796 --> 00:16:09.595 to make the determination whether

NOTE Confidence: 0.8655359

00:16:09.595 --> 00:16:12.011 the two beers are same or different.

NOTE Confidence: 0.8655359

00:16:12.011 --> 00:16:14.339 So you see that across all three days

NOTE Confidence: 0.8655359

00:16:14.339 --> 00:16:16.408 is really high reliability that they

NOTE Confidence: 0.8655359

00:16:16.408 --> 00:16:19.314 were in fact drinking more to make that

NOTE Confidence: 0.8655359

00:16:19.314 --> 00:16:21.204 determination that binge heavy drinkers.

NOTE Confidence: 0.8655359

00:16:21.210 --> 00:16:23.358 And we see that post drinking.

NOTE Confidence: 0.8655359

00:16:23.360 --> 00:16:25.748 You see a rise in cortisol.

NOTE Confidence: 0.8655359

00:16:25.750 --> 00:16:27.750 Of course, they drank more,

NOTE Confidence: 0.8655359

00:16:27.750 --> 00:16:29.740 so you see the bench.

NOTE Confidence: 0.8655359

00:16:29.740 --> 00:16:31.340 Heavy drinkers have a

NOTE Confidence: 0.8655359

00:16:31.340 --> 00:16:32.540 bigger cortisol response.  
NOTE Confidence: 0.8655359

00:16:32.540 --> 00:16:34.530 It's smiled because it's so  
NOTE Confidence: 0.8655359

00:16:34.530 --> 00:16:36.122 small amounts of cortisol,  
NOTE Confidence: 0.8655359

00:16:36.130 --> 00:16:38.518 I mean small amounts of alcohol,  
NOTE Confidence: 0.8655359

00:16:38.520 --> 00:16:40.692 but nonetheless we see a significant  
NOTE Confidence: 0.8655359

00:16:40.692 --> 00:16:42.910 increase in cortisol post consumption.  
NOTE Confidence: 0.8655359

00:16:42.910 --> 00:16:45.120 Then the interesting thing was  
NOTE Confidence: 0.8655359

00:16:45.120 --> 00:16:47.330 pre consumption when they folks  
NOTE Confidence: 0.8655359

00:16:47.406 --> 00:16:49.688 were exposed to the cues we see.  
NOTE Confidence: 0.8655359

00:16:49.690 --> 00:16:52.483 In fact, a blunted response in the  
NOTE Confidence: 0.8655359

00:16:52.483 --> 00:16:53.680 binge heavy drinker,  
NOTE Confidence: 0.8655359

00:16:53.680 --> 00:16:54.508 so remember.  
NOTE Confidence: 0.8655359

00:16:54.508 --> 00:16:56.578 I showed you that baseline.  
NOTE Confidence: 0.8655359

00:16:56.580 --> 00:16:58.580 They have high responses and  
NOTE Confidence: 0.8655359

00:16:58.580 --> 00:17:00.580 then in response to stress,  
NOTE Confidence: 0.8655359

00:17:00.580 --> 00:17:01.690 they're actually blunted

NOTE Confidence: 0.8655359

00:17:01.690 --> 00:17:03.540 compared to the bench compared

NOTE Confidence: 0.8655359

00:17:03.540 --> 00:17:05.780 to the light moderate drinkers.

NOTE Confidence: 0.8655359

00:17:05.780 --> 00:17:08.412 An in fact that blunted response in

NOTE Confidence: 0.8655359

00:17:08.412 --> 00:17:10.874 cortisol predicts how much they consume

NOTE Confidence: 0.8655359

00:17:10.874 --> 00:17:12.979 in this implicit motivation test.

NOTE Confidence: 0.8655359

00:17:12.980 --> 00:17:15.380 So cortisol is having an effect.

NOTE Confidence: 0.8655359

00:17:15.380 --> 00:17:17.732 I will say we have beautiful effects

NOTE Confidence: 0.8655359

00:17:17.732 --> 00:17:20.637 of craving in this paper that craving

NOTE Confidence: 0.8655359

00:17:20.637 --> 00:17:23.379 predicts intake across all three conditions.

NOTE Confidence: 0.8655359

00:17:23.380 --> 00:17:26.180 An cortisol in craving are not connected,

NOTE Confidence: 0.8655359

00:17:26.180 --> 00:17:26.569 so.

NOTE Confidence: 0.8655359

00:17:26.569 --> 00:17:28.903 We start to see separate pathways

NOTE Confidence: 0.8655359

00:17:28.903 --> 00:17:30.880 that are influencing motivation.

NOTE Confidence: 0.8655359

00:17:30.880 --> 00:17:32.532 Once through the subjective,

NOTE Confidence: 0.8655359

00:17:32.532 --> 00:17:34.597 wanting sailing sort of state,

NOTE Confidence: 0.8655359

00:17:34.600 --> 00:17:36.660 the other through the biological  
NOTE Confidence: 0.8655359

00:17:36.660 --> 00:17:38.308 pathway of stress destruction.  
NOTE Confidence: 0.8655359

00:17:38.310 --> 00:17:41.005 So we put out this notion that  
NOTE Confidence: 0.8655359

00:17:41.005 --> 00:17:43.097 that would binge heavy drinking  
NOTE Confidence: 0.8655359

00:17:43.097 --> 00:17:45.653 or with active alcohol you get  
NOTE Confidence: 0.8655359

00:17:45.653 --> 00:17:48.230 a rise in your basal state.  
NOTE Confidence: 0.8655359

00:17:48.230 --> 00:17:49.460 Sort of this.  
NOTE Confidence: 0.8655359

00:17:49.460 --> 00:17:51.920 You'll start to hear and allostatic  
NOTE Confidence: 0.8655359

00:17:51.920 --> 00:17:54.500 kind of model or explanation here  
NOTE Confidence: 0.8655359

00:17:54.500 --> 00:17:56.970 that then there's when you get.  
NOTE Confidence: 0.8655359

00:17:56.970 --> 00:17:59.010 When you actually consume alcohol,  
NOTE Confidence: 0.8655359

00:17:59.010 --> 00:18:00.550 a standard alcoholic drink.  
NOTE Confidence: 0.8655359

00:18:00.550 --> 00:18:03.480 Being heavy drinkers have a blunted response.  
NOTE Confidence: 0.8655359

00:18:03.480 --> 00:18:05.520 I showed the same with,  
NOTE Confidence: 0.8655359

00:18:05.520 --> 00:18:06.738 uh, stress manipulation.  
NOTE Confidence: 0.8655359

00:18:06.738 --> 00:18:08.366 An in fact, then,

NOTE Confidence: 0.8655359

00:18:08.366 --> 00:18:11.614 in the face of being presented with queues,

NOTE Confidence: 0.8655359

00:18:11.620 --> 00:18:14.564 there is a need to drink more to

NOTE Confidence: 0.8655359

00:18:14.564 --> 00:18:16.908 perhaps bring back this response,

NOTE Confidence: 0.8655359

00:18:16.910 --> 00:18:18.438 bring back your Basil,

NOTE Confidence: 0.8655359

00:18:18.438 --> 00:18:20.348 State of responding or normalizing

NOTE Confidence: 0.8655359

00:18:20.348 --> 00:18:21.799 the stress response,

NOTE Confidence: 0.8655359

00:18:21.800 --> 00:18:23.830 so to speak with alcohol.

NOTE Confidence: 0.8655359

00:18:23.830 --> 00:18:26.994 So that's something we are we are.

NOTE Confidence: 0.8655359

00:18:27.000 --> 00:18:29.316 Pursuing and testing in different ways,

NOTE Confidence: 0.8655359

00:18:29.320 --> 00:18:31.432 but this was sort of our

NOTE Confidence: 0.8655359

00:18:31.432 --> 00:18:32.840 speculated heuristic model of

NOTE Confidence: 0.8655359

00:18:32.912 --> 00:18:34.740 the role of glucocorticoids.

NOTE Confidence: 0.8655359

00:18:34.740 --> 00:18:37.108 I should say here for those who are

NOTE Confidence: 0.8655359

00:18:37.108 --> 00:18:39.792 interested in whether we think that the

NOTE Confidence: 0.8655359

00:18:39.792 --> 00:18:41.412 peripheral glucocorticoids or cortisol

NOTE Confidence: 0.8655359

00:18:41.412 --> 00:18:43.639 is actually changing motivation.  
NOTE Confidence: 0.8655359

00:18:43.640 --> 00:18:45.580 We do not think so.  
NOTE Confidence: 0.8655359

00:18:45.580 --> 00:18:47.510 We think it's a marker.  
NOTE Confidence: 0.8655359

00:18:47.510 --> 00:18:49.316 We think that that's really a  
NOTE Confidence: 0.8655359

00:18:49.316 --> 00:18:50.520 marker of Central Activational  
NOTE Confidence: 0.8655359

00:18:50.574 --> 00:18:52.080 central glucocorticoid pathways  
NOTE Confidence: 0.8655359

00:18:52.080 --> 00:18:54.088 influencing the motivational circuits.  
NOTE Confidence: 0.8622678

00:18:54.090 --> 00:18:57.345 So what about in alcohol use disorders?  
NOTE Confidence: 0.8622678

00:18:57.350 --> 00:18:59.050 We have several treatments  
NOTE Confidence: 0.8622678

00:18:59.050 --> 00:19:00.750 and alcohol use disorder.  
NOTE Confidence: 0.8622678

00:19:00.750 --> 00:19:03.770 Treat alcohol use disorder, but.  
NOTE Confidence: 0.8622678

00:19:03.770 --> 00:19:05.996 The treatment impact has been modest  
NOTE Confidence: 0.8622678

00:19:05.996 --> 00:19:09.020 and we all here know this because  
NOTE Confidence: 0.8622678

00:19:09.020 --> 00:19:10.976 naltrexone was developed here.  
NOTE Confidence: 0.8622678

00:19:10.980 --> 00:19:13.260 There's been a lot of development  
NOTE Confidence: 0.8622678

00:19:13.260 --> 00:19:15.338 in focus on treatment development

NOTE Confidence: 0.8622678

00:19:15.338 --> 00:19:17.758 in alcohol use disorders here,

NOTE Confidence: 0.8622678

00:19:17.760 --> 00:19:20.847 and so we started to think about how can

NOTE Confidence: 0.8622678

00:19:20.847 --> 00:19:23.429 we improve these treatments and wanted

NOTE Confidence: 0.8622678

00:19:23.429 --> 00:19:27.131 to go back to what happens to this

NOTE Confidence: 0.8622678

00:19:27.131 --> 00:19:30.059 stress pathway in alcohol use disorder,

NOTE Confidence: 0.8622678

00:19:30.060 --> 00:19:31.784 particularly as folks initiate

NOTE Confidence: 0.8622678

00:19:31.784 --> 00:19:33.939 treatment or start cutting back.

NOTE Confidence: 0.8622678

00:19:33.940 --> 00:19:36.028 And then the phase of abstinence,

NOTE Confidence: 0.8622678

00:19:36.030 --> 00:19:37.770 or early abstinence maintaining recovery.

NOTE Confidence: 0.8622678

00:19:37.770 --> 00:19:40.546 We know that there are high relapse rates.

NOTE Confidence: 0.8622678

00:19:40.550 --> 00:19:42.629 I'm going to show you some data

NOTE Confidence: 0.8622678

00:19:42.629 --> 00:19:45.315 of that for that an so we started

NOTE Confidence: 0.8622678

00:19:45.315 --> 00:19:47.040 to think about whether these

NOTE Confidence: 0.8622678

00:19:47.113 --> 00:19:49.597 different phases can be broken down.

NOTE Confidence: 0.8622678

00:19:49.600 --> 00:19:52.723 Could there be a need for as recovery starts?

NOTE Confidence: 0.8622678



00:19:52.730 --> 00:19:55.130 Perhaps this recovery in these in  
NOTE Confidence: 0.8622678

00:19:55.130 --> 00:19:57.875 these pathways would there be a need  
NOTE Confidence: 0.8622678

00:19:57.875 --> 00:19:59.665 for different types of treatment?  
NOTE Confidence: 0.8622678

00:19:59.670 --> 00:20:02.192 Let me read to you. This pace.  
NOTE Confidence: 0.8622678

00:20:02.192 --> 00:20:04.298 Someone who reached out as she  
NOTE Confidence: 0.8622678

00:20:04.298 --> 00:20:06.198 was struggling with her recovery.  
NOTE Confidence: 0.8622678

00:20:06.200 --> 00:20:08.594 Anne Rd about it and I thought  
NOTE Confidence: 0.8622678

00:20:08.594 --> 00:20:10.200 it was very shows.  
NOTE Confidence: 0.8622678

00:20:10.200 --> 00:20:13.096 Very articulate at 8 weeks without a drop.  
NOTE Confidence: 0.8622678

00:20:13.100 --> 00:20:15.510 I really noticed I'm living  
NOTE Confidence: 0.8622678

00:20:15.510 --> 00:20:17.920 less on instinct and habit.  
NOTE Confidence: 0.8622678

00:20:17.920 --> 00:20:20.926 I can think much more clearly.  
NOTE Confidence: 0.8622678

00:20:20.930 --> 00:20:23.930 And take time to process thoughts  
NOTE Confidence: 0.8622678

00:20:23.930 --> 00:20:25.930 mature Lee before acting.  
NOTE Confidence: 0.8622678

00:20:25.930 --> 00:20:28.457 I even notice I'm just talking less.  
NOTE Confidence: 0.8622678

00:20:28.460 --> 00:20:30.270 I haven't had fully formed

NOTE Confidence: 0.8622678

00:20:30.270 --> 00:20:32.080 thoughts for so very long.

NOTE Confidence: 0.8622678

00:20:32.080 --> 00:20:34.870 It's kind of nice to have

NOTE Confidence: 0.8622678

00:20:34.870 --> 00:20:36.730 my faculties back again.

NOTE Confidence: 0.8622678

00:20:36.730 --> 00:20:39.677 In the past it's all been so

NOTE Confidence: 0.8622678

00:20:39.677 --> 00:20:42.700 superficial just to get me from A to B.

NOTE Confidence: 0.8622678

00:20:42.700 --> 00:20:45.241 Just to keep up the veneer of

NOTE Confidence: 0.8622678

00:20:45.241 --> 00:20:46.940 being a full human,

NOTE Confidence: 0.8622678

00:20:46.940 --> 00:20:48.865 but underneath I was just

NOTE Confidence: 0.8622678

00:20:48.865 --> 00:20:50.790 a slave to the bottle.

NOTE Confidence: 0.8622678

00:20:50.790 --> 00:20:52.710 Hungover hiding myself very much.

NOTE Confidence: 0.8622678

00:20:52.710 --> 00:20:55.638 A knee jerk reaction.

NOTE Confidence: 0.8622678

00:20:55.640 --> 00:20:58.055 But now I'm no longer feeling silence

NOTE Confidence: 0.8622678

00:20:58.055 --> 00:21:00.607 is nagging at my kids interrupting

NOTE Confidence: 0.8622678

00:21:00.607 --> 00:21:02.539 people while they're talking.

NOTE Confidence: 0.8622678

00:21:02.540 --> 00:21:03.938 I'm just listening.

NOTE Confidence: 0.8622678

00:21:03.938 --> 00:21:06.734 And not even planning how to  
NOTE Confidence: 0.8622678

00:21:06.734 --> 00:21:08.420 react just sitting.  
NOTE Confidence: 0.8622678

00:21:08.420 --> 00:21:11.416 With the moments and observing, hearing,  
NOTE Confidence: 0.8622678

00:21:11.416 --> 00:21:14.896 feeling quiet and contented myself.  
NOTE Confidence: 0.8622678

00:21:14.900 --> 00:21:17.917 I even think I found my chi.  
NOTE Confidence: 0.8622678

00:21:17.920 --> 00:21:19.762 Without even knowing what that word  
NOTE Confidence: 0.8622678

00:21:19.762 --> 00:21:22.469 meant a week ago, I felt something.  
NOTE Confidence: 0.8622678

00:21:22.469 --> 00:21:25.427 Like a place inside my soul.  
NOTE Confidence: 0.8622678

00:21:25.430 --> 00:21:27.400 Something I think I remember  
NOTE Confidence: 0.8622678

00:21:27.400 --> 00:21:29.917 discovering as a child and teen  
NOTE Confidence: 0.8622678

00:21:29.917 --> 00:21:31.809 before alcohol smothered it.  
NOTE Confidence: 0.8622678

00:21:31.810 --> 00:21:35.098 A presence of myself.  
NOTE Confidence: 0.8622678

00:21:35.100 --> 00:21:37.476 I thought she wrote this quite  
NOTE Confidence: 0.8622678

00:21:37.476 --> 00:21:38.664 articulately about which.  
NOTE Confidence: 0.8622678

00:21:38.670 --> 00:21:41.052 What are the struggles of that  
NOTE Confidence: 0.8622678

00:21:41.052 --> 00:21:42.243 early recovery period.

NOTE Confidence: 0.8622678

00:21:42.250 --> 00:21:45.814 The first 8 weeks as she described an in.

NOTE Confidence: 0.8622678

00:21:45.820 --> 00:21:48.410 Really she's one of the lucky ones

NOTE Confidence: 0.8622678

00:21:48.410 --> 00:21:50.929 who makes it through eight weeks

NOTE Confidence: 0.8622678

00:21:50.929 --> 00:21:54.016 without without drop as she says and

NOTE Confidence: 0.8622678

00:21:54.102 --> 00:21:56.636 starts to notice the changes in a

NOTE Confidence: 0.8622678

00:21:56.636 --> 00:21:58.996 lot of which she's talking about.

NOTE Confidence: 0.8622678

00:21:58.996 --> 00:22:01.106 Is this higher executive function

NOTE Confidence: 0.8622678

00:22:01.106 --> 00:22:02.890 function this sense of self?

NOTE Confidence: 0.8622678

00:22:02.890 --> 00:22:04.542 The sense of feeling?

NOTE Confidence: 0.8622678

00:22:04.542 --> 00:22:05.368 Do controls.

NOTE Confidence: 0.8622678

00:22:05.370 --> 00:22:08.220 Building back herself control building back.

NOTE Confidence: 0.8622678

00:22:08.220 --> 00:22:11.070 Her ability to observe and notice

NOTE Confidence: 0.8622678

00:22:11.070 --> 00:22:12.495 people around you.

NOTE Confidence: 0.8622678

00:22:12.500 --> 00:22:14.400 Maybe even start to,

NOTE Confidence: 0.8622678

00:22:14.400 --> 00:22:16.300 of course, think clearly,

NOTE Confidence: 0.8622678

00:22:16.300 --> 00:22:18.200 but particularly emotional regulation.

NOTE Confidence: 0.8622678

00:22:18.200 --> 00:22:20.096 Emotional intelligence coming back.

NOTE Confidence: 0.8622678

00:22:20.096 --> 00:22:22.466 Thank you for some insight,

NOTE Confidence: 0.8622678

00:22:22.470 --> 00:22:25.718 which I thought was was a really

NOTE Confidence: 0.8622678

00:22:25.718 --> 00:22:27.110 interesting that capacity

NOTE Confidence: 0.8592372

00:22:27.190 --> 00:22:30.070 to have some insight and reflection.

NOTE Confidence: 0.8592372

00:22:30.070 --> 00:22:32.500 And these are components of

NOTE Confidence: 0.8592372

00:22:32.500 --> 00:22:34.444 higher order cognitive function

NOTE Confidence: 0.8592372

00:22:34.444 --> 00:22:36.838 that that folks in addiction.

NOTE Confidence: 0.8592372

00:22:36.840 --> 00:22:38.940 Our study is starting to characterize.

NOTE Confidence: 0.8592372

00:22:38.940 --> 00:22:41.124 And studies, so I thought it

NOTE Confidence: 0.8592372

00:22:41.124 --> 00:22:42.580 captured that pretty well.

NOTE Confidence: 0.8592372

00:22:42.580 --> 00:22:45.348 So we wanted to let me show you

NOTE Confidence: 0.8592372

00:22:45.348 --> 00:22:47.909 first our data from right here.

NOTE Confidence: 0.8592372

00:22:47.910 --> 00:22:49.820 The substance abuse treatment unit.

NOTE Confidence: 0.8592372

00:22:49.820 --> 00:22:50.939 In one year,

NOTE Confidence: 0.8592372

00:22:50.939 --> 00:22:52.804 data from 878 patients outpatients

NOTE Confidence: 0.8592372

00:22:52.804 --> 00:22:55.150 classified by different drugs of abuse.

NOTE Confidence: 0.8592372

00:22:55.150 --> 00:22:58.198 In the in the green is the alcohol.

NOTE Confidence: 0.8592372

00:22:58.200 --> 00:22:59.018 Of course,

NOTE Confidence: 0.8592372

00:22:59.018 --> 00:23:01.881 at tattoo we use the medications pretty

NOTE Confidence: 0.8592372

00:23:01.881 --> 00:23:03.685 religiously that are available for

NOTE Confidence: 0.8592372

00:23:03.685 --> 00:23:06.200 alcohol and so you see that effect.

NOTE Confidence: 0.8592372

00:23:06.200 --> 00:23:06.974 But critically,

NOTE Confidence: 0.8592372

00:23:06.974 --> 00:23:10.070 what I want to show you here on

NOTE Confidence: 0.8592372

00:23:10.154 --> 00:23:12.786 the X axis is time to discharge.

NOTE Confidence: 0.8592372

00:23:12.790 --> 00:23:15.067 And on the Y axis is sort of the

NOTE Confidence: 0.8592372

00:23:15.067 --> 00:23:16.527 proportion who remained abstinent

NOTE Confidence: 0.8592372

00:23:16.527 --> 00:23:18.807 or who were abstinent at discharge.

NOTE Confidence: 0.8592372

00:23:18.810 --> 00:23:21.029 So essentially it captures both at both

NOTE Confidence: 0.8592372

00:23:21.029 --> 00:23:23.570 the dropout rate as well as being abstinent.

NOTE Confidence: 0.8592372

00:23:23.570 --> 00:23:25.466 An weather weather at drop out,  
NOTE Confidence: 0.8592372

00:23:25.470 --> 00:23:27.638 they were abstinent and so a lot of  
NOTE Confidence: 0.8592372

00:23:27.638 --> 00:23:29.566 times when we think about recovery  
NOTE Confidence: 0.8592372

00:23:29.566 --> 00:23:31.546 we think about this later period  
NOTE Confidence: 0.8592372

00:23:31.613 --> 00:23:33.965 we kind of got obsessed with this  
NOTE Confidence: 0.8592372

00:23:33.965 --> 00:23:35.298 beginning period 'cause there's  
NOTE Confidence: 0.8592372

00:23:35.298 --> 00:23:36.570 this constant revolving door.  
NOTE Confidence: 0.8592372

00:23:36.570 --> 00:23:38.155 When you're in addiction treatment  
NOTE Confidence: 0.8592372

00:23:38.155 --> 00:23:40.050 you know about the revolving door.  
NOTE Confidence: 0.8592372

00:23:40.050 --> 00:23:42.834 People who show up for one or two  
NOTE Confidence: 0.8592372

00:23:42.834 --> 00:23:44.857 appointments and can show up after.  
NOTE Confidence: 0.8592372

00:23:44.860 --> 00:23:46.120 That's what's represented here.  
NOTE Confidence: 0.8592372

00:23:46.120 --> 00:23:48.391 You see a precipitous drop in the  
NOTE Confidence: 0.8592372

00:23:48.391 --> 00:23:49.996 beginning and we really haven't  
NOTE Confidence: 0.8592372

00:23:49.996 --> 00:23:51.280 understood that very well,  
NOTE Confidence: 0.8592372

00:23:51.280 --> 00:23:53.744 and then there's this next phase of

NOTE Confidence: 0.8592372

00:23:53.744 --> 00:23:56.369 where people are falling off the wagon.

NOTE Confidence: 0.8592372

00:23:56.370 --> 00:23:59.403 And you see that in with alcohol as well,

NOTE Confidence: 0.8592372

00:23:59.410 --> 00:24:01.426 and so in some ways we wanted to

NOTE Confidence: 0.8592372

00:24:01.426 --> 00:24:03.442 ask the question if these are

NOTE Confidence: 0.8592372

00:24:03.442 --> 00:24:05.242 similar processes or could there

NOTE Confidence: 0.8592372

00:24:05.242 --> 00:24:08.027 be other things going on as people

NOTE Confidence: 0.8592372

00:24:08.027 --> 00:24:09.206 are initiating recovery.

NOTE Confidence: 0.8592372

00:24:09.210 --> 00:24:11.238 Many of you have seen this.

NOTE Confidence: 0.8592372

00:24:11.240 --> 00:24:13.340 This slide of ours where we started

NOTE Confidence: 0.8592372

00:24:13.340 --> 00:24:15.456 to bring what people are facing out

NOTE Confidence: 0.8592372

00:24:15.456 --> 00:24:17.691 in the real world as they struggling

NOTE Confidence: 0.8592372

00:24:17.691 --> 00:24:20.367 with early recovery into the laboratory.

NOTE Confidence: 0.8592372

00:24:20.370 --> 00:24:22.806 An provoking sort of their triggers to

NOTE Confidence: 0.8592372

00:24:22.806 --> 00:24:25.439 often talk about when I get stressed out.

NOTE Confidence: 0.8592372

00:24:25.440 --> 00:24:27.130 I don't know what happens.

NOTE Confidence: 0.8592372



00:24:27.130 --> 00:24:28.153 I start using.  
NOTE Confidence: 0.8592372

00:24:28.153 --> 00:24:31.140 And so we started to in provoke stress,  
NOTE Confidence: 0.8592372

00:24:31.140 --> 00:24:33.210 compared it to drug keyuan neutral  
NOTE Confidence: 0.8592372

00:24:33.210 --> 00:24:34.987 in a tight experimental situation  
NOTE Confidence: 0.8592372

00:24:34.987 --> 00:24:36.985 and just with five minutes of  
NOTE Confidence: 0.8592372

00:24:36.985 --> 00:24:39.239 exposure you see sustained increases.  
NOTE Confidence: 0.8592372

00:24:39.240 --> 00:24:41.075 And this is what became  
NOTE Confidence: 0.8592372

00:24:41.075 --> 00:24:42.176 stress induced craving,  
NOTE Confidence: 0.8592372

00:24:42.180 --> 00:24:44.756 which has been described numerous Times Now.  
NOTE Confidence: 0.8592372

00:24:44.760 --> 00:24:47.336 And of course Q and use craving,  
NOTE Confidence: 0.8592372

00:24:47.340 --> 00:24:49.608 which has been described an what we  
NOTE Confidence: 0.8592372

00:24:49.608 --> 00:24:52.280 showed early on was that higher the  
NOTE Confidence: 0.8592372

00:24:52.280 --> 00:24:54.325 stress induced stress induced craving,  
NOTE Confidence: 0.8592372

00:24:54.330 --> 00:24:56.538 the provoke craving in the laboratory.  
NOTE Confidence: 0.8592372

00:24:56.540 --> 00:24:58.500 So right here in the.  
NOTE Confidence: 0.8592372

00:24:58.500 --> 00:25:00.940 Open.

NOTE Confidence: 0.8592372

00:25:00.940 --> 00:25:02.288 Squares here and hire

NOTE Confidence: 0.8592372

00:25:02.288 --> 00:25:03.636 the cue induced craving.

NOTE Confidence: 0.8592372

00:25:03.640 --> 00:25:05.320 The more quickly people respond,

NOTE Confidence: 0.8592372

00:25:05.320 --> 00:25:08.344 relapse on the X axis is time to relapse.

NOTE Confidence: 0.8592372

00:25:08.350 --> 00:25:10.583 You'll see a lot of these curves

NOTE Confidence: 0.8592372

00:25:10.583 --> 00:25:13.068 an on the Y axis is survival,

NOTE Confidence: 0.8592372

00:25:13.070 --> 00:25:14.755 so not relapsing and you

NOTE Confidence: 0.8592372

00:25:14.755 --> 00:25:16.103 see the precipitous drop.

NOTE Confidence: 0.8592372

00:25:16.110 --> 00:25:18.126 If you were a high Craver,

NOTE Confidence: 0.8592372

00:25:18.130 --> 00:25:19.815 so we identified that actually

NOTE Confidence: 0.8592372

00:25:19.815 --> 00:25:21.500 craving does have an impact,

NOTE Confidence: 0.8592372

00:25:21.500 --> 00:25:23.824 but what I wanted in coming back

NOTE Confidence: 0.8592372

00:25:23.824 --> 00:25:26.250 to this notion of where we are

NOTE Confidence: 0.8592372

00:25:26.250 --> 00:25:28.284 today with this and you're going

NOTE Confidence: 0.827227

00:25:28.358 --> 00:25:30.958 to see me pointing this out so craving

NOTE Confidence: 0.827227

00:25:30.958 --> 00:25:33.010 then is a predictor variable here,  
NOTE Confidence: 0.827227

00:25:33.010 --> 00:25:34.410 meaning it's a potential.  
NOTE Confidence: 0.827227

00:25:34.410 --> 00:25:35.814 Behavioral marker of relapse.  
NOTE Confidence: 0.827227

00:25:35.814 --> 00:25:39.079 But I want to show you the variability.  
NOTE Confidence: 0.827227

00:25:39.080 --> 00:25:40.920 OK not everybody craves and  
NOTE Confidence: 0.827227

00:25:40.920 --> 00:25:43.749 in fact we have 0 right here.  
NOTE Confidence: 0.827227

00:25:43.750 --> 00:25:46.862 People who were not craving and in fact  
NOTE Confidence: 0.827227

00:25:46.862 --> 00:25:49.585 about 30% of people when you provoke  
NOTE Confidence: 0.827227

00:25:49.585 --> 00:25:51.530 craving will not report craving.  
NOTE Confidence: 0.827227

00:25:51.530 --> 00:25:54.246 Maybe 20 to 25 under provocation states,  
NOTE Confidence: 0.827227

00:25:54.250 --> 00:25:57.742 but more so in if you're measuring it weekly.  
NOTE Confidence: 0.827227

00:25:57.750 --> 00:26:00.396 But most importantly there isn't good  
NOTE Confidence: 0.827227

00:26:00.396 --> 00:26:02.967 group of people who are reporting  
NOTE Confidence: 0.827227

00:26:02.967 --> 00:26:05.494 it an in fact it's not just.  
NOTE Confidence: 0.827227

00:26:05.500 --> 00:26:07.702 Amir rating it seems to have  
NOTE Confidence: 0.827227

00:26:07.702 --> 00:26:09.930 an impact on on relapse.

NOTE Confidence: 0.827227  
00:26:09.930 --> 00:26:10.738 These folks.  
NOTE Confidence: 0.827227  
00:26:10.738 --> 00:26:11.950 By the way,  
NOTE Confidence: 0.827227  
00:26:11.950 --> 00:26:13.865 these early studies were inpatient  
NOTE Confidence: 0.827227  
00:26:13.865 --> 00:26:16.260 when we did the provocation and  
NOTE Confidence: 0.827227  
00:26:16.260 --> 00:26:17.932 manipulations and then they  
NOTE Confidence: 0.827227  
00:26:17.932 --> 00:26:19.604 were discharged to aftercare,  
NOTE Confidence: 0.827227  
00:26:19.610 --> 00:26:21.515 outpatient aftercare and we followed  
NOTE Confidence: 0.827227  
00:26:21.515 --> 00:26:24.040 them and so this is relapse.  
NOTE Confidence: 0.827227  
00:26:24.040 --> 00:26:26.165 During aftercare we looked at  
NOTE Confidence: 0.827227  
00:26:26.165 --> 00:26:28.726 their HPA access response and in  
NOTE Confidence: 0.827227  
00:26:28.726 --> 00:26:30.886 fact they High Court ACTH ratio,  
NOTE Confidence: 0.827227  
00:26:30.890 --> 00:26:33.704 which is a measure of adrenal sensitivity.  
NOTE Confidence: 0.827227  
00:26:33.710 --> 00:26:36.530 This is the Basil measure.  
NOTE Confidence: 0.827227  
00:26:36.530 --> 00:26:39.020 And it actually captures there that  
NOTE Confidence: 0.827227  
00:26:39.020 --> 00:26:41.480 blunted responding during stress provocation.  
NOTE Confidence: 0.827227

00:26:41.480 --> 00:26:44.630 An that is well predicted relapse here,  
NOTE Confidence: 0.827227

00:26:44.630 --> 00:26:47.216 with high levels of the ratio  
NOTE Confidence: 0.827227

00:26:47.216 --> 00:26:49.953 leading to very precipitous drop in  
NOTE Confidence: 0.827227

00:26:49.953 --> 00:26:52.278 the ability to maintain abstinence.  
NOTE Confidence: 0.827227

00:26:52.280 --> 00:26:55.430 Again, we see variation in these responses,  
NOTE Confidence: 0.827227

00:26:55.430 --> 00:26:56.330 and frankly,  
NOTE Confidence: 0.827227

00:26:56.330 --> 00:26:58.580 with any neuro biological study  
NOTE Confidence: 0.827227

00:26:58.580 --> 00:26:59.930 that we're doing,  
NOTE Confidence: 0.827227

00:26:59.930 --> 00:27:03.080 all of us have been doing it.  
NOTE Confidence: 0.827227

00:27:03.080 --> 00:27:05.330 We have variation in there,  
NOTE Confidence: 0.827227

00:27:05.330 --> 00:27:07.700 and so the question is.  
NOTE Confidence: 0.827227

00:27:07.700 --> 00:27:11.476 How are we going to be able to  
NOTE Confidence: 0.827227

00:27:11.476 --> 00:27:12.420 capture variation?  
NOTE Confidence: 0.827227

00:27:12.420 --> 00:27:15.234 This is a structural analysis of  
NOTE Confidence: 0.827227

00:27:15.234 --> 00:27:17.653 voxel based morphometry showing the  
NOTE Confidence: 0.827227

00:27:17.653 --> 00:27:19.501 medial prefrontal cortical region

NOTE Confidence: 0.827227

00:27:19.501 --> 00:27:22.330 is smaller the region the worst,

NOTE Confidence: 0.827227

00:27:22.330 --> 00:27:24.997 the outcome in terms of time to

NOTE Confidence: 0.827227

00:27:24.997 --> 00:27:27.340 relapse and then this disrupted

NOTE Confidence: 0.827227

00:27:27.340 --> 00:27:29.564 functional activation where in

NOTE Confidence: 0.827227

00:27:29.564 --> 00:27:32.337 the neutral condition we have

NOTE Confidence: 0.827227

00:27:32.337 --> 00:27:34.642 activation or higher levels and

NOTE Confidence: 0.827227

00:27:34.642 --> 00:27:37.831 inability to relax in this in this.

NOTE Confidence: 0.827227

00:27:37.831 --> 00:27:40.066 Coping circuit ventral striatal vetera,

NOTE Confidence: 0.827227

00:27:40.070 --> 00:27:42.416 medial Pfc coping circuit and then

NOTE Confidence: 0.827227

00:27:42.416 --> 00:27:43.980 distress conditions of blunted

NOTE Confidence: 0.827227

00:27:44.046 --> 00:27:46.500 responding and once again that being

NOTE Confidence: 0.827227

00:27:46.500 --> 00:27:48.136 important for predicting future

NOTE Confidence: 0.827227

00:27:48.203 --> 00:27:50.068 relapse again we see variation.

NOTE Confidence: 0.827227

00:27:50.070 --> 00:27:51.270 So this variation.

NOTE Confidence: 0.827227

00:27:51.270 --> 00:27:53.270 So we have significant findings.

NOTE Confidence: 0.827227

00:27:53.270 --> 00:27:54.730 We've got great data.  
NOTE Confidence: 0.827227

00:27:54.730 --> 00:27:58.069 What do we do clinically with this variation?  
NOTE Confidence: 0.827227

00:27:58.070 --> 00:28:00.457 So we again got very obsessed with  
NOTE Confidence: 0.827227

00:28:00.457 --> 00:28:03.270 this in terms of clinical translation.  
NOTE Confidence: 0.827227

00:28:03.270 --> 00:28:06.070 Who is most vulnerable to these changes?  
NOTE Confidence: 0.827227

00:28:06.070 --> 00:28:08.105 And can these bio behavioral  
NOTE Confidence: 0.827227

00:28:08.105 --> 00:28:09.733 markers help us identify?  
NOTE Confidence: 0.827227

00:28:09.740 --> 00:28:11.380 Those who are most vulnerable.  
NOTE Confidence: 0.827227

00:28:11.380 --> 00:28:13.501 We don't just want to show that  
NOTE Confidence: 0.827227

00:28:13.501 --> 00:28:15.172 alcohol leads to these changes  
NOTE Confidence: 0.827227

00:28:15.172 --> 00:28:17.254 and that it's a brain disease.  
NOTE Confidence: 0.827227

00:28:17.260 --> 00:28:19.024 Can we bring that translation back  
NOTE Confidence: 0.827227

00:28:19.024 --> 00:28:21.344 into the clinic to help us improve  
NOTE Confidence: 0.827227

00:28:21.344 --> 00:28:23.149 treatments for alcohol use disorder?  
NOTE Confidence: 0.827227

00:28:23.150 --> 00:28:25.758 And so you might start to think about,  
NOTE Confidence: 0.827227

00:28:25.760 --> 00:28:29.687 well, they should be moderate yrs of.

NOTE Confidence: 0.827227

00:28:29.690 --> 00:28:31.515 These of our treatment outcomes

NOTE Confidence: 0.827227

00:28:31.515 --> 00:28:34.190 an could we use that to enhance

NOTE Confidence: 0.827227

00:28:34.190 --> 00:28:36.892 what we now know is it's called

NOTE Confidence: 0.827227

00:28:36.892 --> 00:28:37.990 personalized medicine?

NOTE Confidence: 0.827227

00:28:37.990 --> 00:28:39.175 No precision medicine.

NOTE Confidence: 0.827227

00:28:39.175 --> 00:28:41.150 So in thinking about that,

NOTE Confidence: 0.827227

00:28:41.150 --> 00:28:43.120 you could think about disease,

NOTE Confidence: 0.827227

00:28:43.120 --> 00:28:43.515 pathophysiology,

NOTE Confidence: 0.827227

00:28:43.515 --> 00:28:46.675 some of the things I've been showing you,

NOTE Confidence: 0.827227

00:28:46.680 --> 00:28:47.470 perhaps severity,

NOTE Confidence: 0.827227

00:28:47.470 --> 00:28:48.260 acute withdrawal,

NOTE Confidence: 0.827227

00:28:48.260 --> 00:28:49.050 drug abstinence,

NOTE Confidence: 0.827227

00:28:49.050 --> 00:28:51.698 the days that you can conjure up in

NOTE Confidence: 0.827227

00:28:51.698 --> 00:28:53.765 terms of abstinence may contribute

NOTE Confidence: 0.827227

00:28:53.765 --> 00:28:56.866 to the degree of these changes or

NOTE Confidence: 0.86203873



00:28:56.950 --> 00:28:58.530 the lack of recovery.  
NOTE Confidence: 0.86203873

00:28:58.530 --> 00:29:01.519 The lack of normalization that may happen.  
NOTE Confidence: 0.86203873

00:29:01.520 --> 00:29:03.836 As a function of initiating treatment,  
NOTE Confidence: 0.86203873

00:29:03.840 --> 00:29:06.156 then there might be folks who,  
NOTE Confidence: 0.86203873

00:29:06.160 --> 00:29:08.035 because of their predisposing factors  
NOTE Confidence: 0.86203873

00:29:08.035 --> 00:29:10.420 such as only trauma or stress,  
NOTE Confidence: 0.86203873

00:29:10.420 --> 00:29:12.860 May in fact be more vulnerable to some  
NOTE Confidence: 0.86203873

00:29:12.860 --> 00:29:15.449 of the alcohol related adaptations.  
NOTE Confidence: 0.86203873

00:29:15.450 --> 00:29:17.390 I was showing you earlier.  
NOTE Confidence: 0.86203873

00:29:17.390 --> 00:29:19.285 It could be that comorbidities  
NOTE Confidence: 0.86203873

00:29:19.285 --> 00:29:21.619 could in fact be playing an  
NOTE Confidence: 0.86203873

00:29:21.619 --> 00:29:23.444 intersecting with those changes in  
NOTE Confidence: 0.86203873

00:29:23.444 --> 00:29:26.290 the brain an in the stress circuit,  
NOTE Confidence: 0.86203873

00:29:26.290 --> 00:29:29.083 and then gender plays a role which  
NOTE Confidence: 0.86203873

00:29:29.083 --> 00:29:32.086 you're not going to hear me talk about,  
NOTE Confidence: 0.86203873

00:29:32.090 --> 00:29:34.890 but it's a very important.

NOTE Confidence: 0.86203873

00:29:34.890 --> 00:29:36.890 Factor, and we've shown we've

NOTE Confidence: 0.86203873

00:29:36.890 --> 00:29:39.330 published data on that as well,

NOTE Confidence: 0.86203873

00:29:39.330 --> 00:29:41.760 and then they may be genetic.

NOTE Confidence: 0.86203873

00:29:41.760 --> 00:29:43.484 An Pharmaco Genomic effects.

NOTE Confidence: 0.86203873

00:29:43.484 --> 00:29:46.836 I'm just going to show you for in

NOTE Confidence: 0.86203873

00:29:46.836 --> 00:29:49.588 the interest of time and just to show

NOTE Confidence: 0.86203873

00:29:49.674 --> 00:29:52.260 you that these factors do matter,

NOTE Confidence: 0.86203873

00:29:52.260 --> 00:29:54.280 I'm going to stick with

NOTE Confidence: 0.86203873

00:29:54.280 --> 00:29:55.088 disease pathophysiology.

NOTE Confidence: 0.86203873

00:29:55.090 --> 00:29:58.314 So how much alcohol folks may have consumed?

NOTE Confidence: 0.86203873

00:29:58.320 --> 00:30:00.744 And how much does acute withdrawal

NOTE Confidence: 0.86203873

00:30:00.744 --> 00:30:02.360 in abstinence impact this?

NOTE Confidence: 0.86203873

00:30:02.360 --> 00:30:06.378 This circuitry so using again are newer?

NOTE Confidence: 0.86203873

00:30:06.380 --> 00:30:08.300 Approach to provoking stress.

NOTE Confidence: 0.86203873

00:30:08.300 --> 00:30:11.180 Q States we now added the

NOTE Confidence: 0.86203873

00:30:11.272 --> 00:30:13.627 alcohol an in drug studies.  
NOTE Confidence: 0.86203873

00:30:13.630 --> 00:30:16.040 We've added drug block essentially.  
NOTE Confidence: 0.86203873

00:30:16.040 --> 00:30:19.414 Now folks in addition to seeing aversive,  
NOTE Confidence: 0.86203873

00:30:19.420 --> 00:30:21.352 threatening awful images just  
NOTE Confidence: 0.86203873

00:30:21.352 --> 00:30:23.284 coming at them continuously.  
NOTE Confidence: 0.86203873

00:30:23.290 --> 00:30:26.134 They also have a block of  
NOTE Confidence: 0.86203873

00:30:26.134 --> 00:30:28.600 alcohol images coming at them.  
NOTE Confidence: 0.86203873

00:30:28.600 --> 00:30:31.974 An of course the neutral relaxing images.  
NOTE Confidence: 0.86203873

00:30:31.980 --> 00:30:33.912 These blocks are randomized  
NOTE Confidence: 0.86203873

00:30:33.912 --> 00:30:34.878 in counterbalanced,  
NOTE Confidence: 0.86203873

00:30:34.880 --> 00:30:37.570 presented in various ways in.  
NOTE Confidence: 0.86203873

00:30:37.570 --> 00:30:39.082 In specific, standardized ways,  
NOTE Confidence: 0.86203873

00:30:39.082 --> 00:30:40.972 and the paper showed that,  
NOTE Confidence: 0.86203873

00:30:40.980 --> 00:30:43.134 and again we are concurrently monitoring  
NOTE Confidence: 0.86203873

00:30:43.134 --> 00:30:45.150 autonomic an HP access response.  
NOTE Confidence: 0.86203873

00:30:45.150 --> 00:30:48.558 What I want to show you is distress

NOTE Confidence: 0.86203873

00:30:48.558 --> 00:30:51.585 response during and this is now P1 to P6,

NOTE Confidence: 0.86203873

00:30:51.590 --> 00:30:52.724 so six runs,

NOTE Confidence: 0.86203873

00:30:52.724 --> 00:30:54.992 provocation runs and the baseline period,

NOTE Confidence: 0.86203873

00:30:55.000 --> 00:30:57.436 and that folks is level of stress

NOTE Confidence: 0.86203873

00:30:57.436 --> 00:31:00.049 and what you see is that people

NOTE Confidence: 0.86203873

00:31:00.049 --> 00:31:02.275 are get highly stressed in the

NOTE Confidence: 0.86203873

00:31:02.357 --> 00:31:04.859 stress condition which is in red.

NOTE Confidence: 0.86203873

00:31:04.860 --> 00:31:08.180 Here an blue is the alcohol Q condition.

NOTE Confidence: 0.86203873

00:31:08.180 --> 00:31:10.118 And like as a neutral condition,

NOTE Confidence: 0.86203873

00:31:10.120 --> 00:31:12.058 what I want you to see,

NOTE Confidence: 0.86203873

00:31:12.060 --> 00:31:14.636 a udi's alcohol use disorder in the bench,

NOTE Confidence: 0.86203873

00:31:14.640 --> 00:31:15.872 heavy users here nondependent

NOTE Confidence: 0.86203873

00:31:15.872 --> 00:31:18.342 users is that there is a diss Basil

NOTE Confidence: 0.86203873

00:31:18.342 --> 00:31:20.302 shift in even the level of stress

NOTE Confidence: 0.86203873

00:31:20.302 --> 00:31:22.135 that the patients are feeling

NOTE Confidence: 0.86203873

00:31:22.135 --> 00:31:24.005 these at treatment entering folks,  
NOTE Confidence: 0.86203873

00:31:24.010 --> 00:31:25.855 they haven't initiated treatment that  
NOTE Confidence: 0.86203873

00:31:25.855 --> 00:31:28.298 Dave engages the intake period and they  
NOTE Confidence: 0.86203873

00:31:28.298 --> 00:31:30.466 get scanned and he is craving in craving.  
NOTE Confidence: 0.86203873

00:31:30.470 --> 00:31:33.368 You see a beautiful very little in the model.  
NOTE Confidence: 0.86203873

00:31:33.370 --> 00:31:34.662 Drinkers are really more  
NOTE Confidence: 0.86203873

00:31:34.662 --> 00:31:36.277 sustained craving in the bench,  
NOTE Confidence: 0.86203873

00:31:36.280 --> 00:31:38.296 heavy drinkers an then a Basil  
NOTE Confidence: 0.86203873

00:31:38.296 --> 00:31:38.968 shifting craving.  
NOTE Confidence: 0.86203873

00:31:38.970 --> 00:31:40.366 Right, even at baseline,  
NOTE Confidence: 0.86203873

00:31:40.366 --> 00:31:43.136 when it's assessed in a controlled way and  
NOTE Confidence: 0.86203873

00:31:43.136 --> 00:31:45.292 then an increase in response to stress.  
NOTE Confidence: 0.86203873

00:31:45.300 --> 00:31:47.298 And we see a stress induced  
NOTE Confidence: 0.86203873

00:31:47.298 --> 00:31:48.630 craving and Acuna scraping,  
NOTE Confidence: 0.86203873

00:31:48.630 --> 00:31:49.958 which you've seen previously.  
NOTE Confidence: 0.86203873

00:31:49.958 --> 00:31:51.618 What happens in the brain?

NOTE Confidence: 0.86203873

00:31:51.620 --> 00:31:53.916 A lot of blunted responding in the

NOTE Confidence: 0.86203873

00:31:53.916 --> 00:31:55.806 in that resilient coping circuitry

NOTE Confidence: 0.86203873

00:31:55.806 --> 00:31:58.314 in our reward circuitry right there.

NOTE Confidence: 0.86203873

00:31:58.320 --> 00:31:59.980 Under stress neutral stress

NOTE Confidence: 0.86203873

00:31:59.980 --> 00:32:02.055 versus neutral conditions in the

NOTE Confidence: 0.86203873

00:32:02.055 --> 00:32:04.180 queue versus neutral conditions,

NOTE Confidence: 0.86203873

00:32:04.180 --> 00:32:07.620 much more so in the alcohol use disorder

NOTE Confidence: 0.86203873

00:32:07.620 --> 00:32:10.048 group relative to social drinkers.

NOTE Confidence: 0.86203873

00:32:10.050 --> 00:32:11.403 And once again,

NOTE Confidence: 0.86203873

00:32:11.403 --> 00:32:13.207 this hyperactivity in the

NOTE Confidence: 0.86203873

00:32:13.207 --> 00:32:14.560 neutral relaxed state.

NOTE Confidence: 0.85197616

00:32:14.560 --> 00:32:17.165 So really a disrupted respond

NOTE Confidence: 0.85197616

00:32:17.165 --> 00:32:19.770 disruption of the brain's functioning

NOTE Confidence: 0.85197616

00:32:19.848 --> 00:32:22.506 under under challenge States and as

NOTE Confidence: 0.85197616

00:32:22.506 --> 00:32:25.104 well as under relaxed States and

NOTE Confidence: 0.85197616

00:32:25.104 --> 00:32:28.088 here we just you see the beta weight,  
NOTE Confidence: 0.85197616

00:32:28.090 --> 00:32:29.602 meaning the region of.  
NOTE Confidence: 0.85197616

00:32:29.602 --> 00:32:31.870 Number of voxels activated and the  
NOTE Confidence: 0.85197616

00:32:31.946 --> 00:32:34.270 difference between the AD or the AUD  
NOTE Confidence: 0.85197616

00:32:34.270 --> 00:32:36.509 Group and the social drinking group  
NOTE Confidence: 0.85197616

00:32:36.509 --> 00:32:38.855 for these target regions of in.  
NOTE Confidence: 0.85197616

00:32:38.860 --> 00:32:42.640 Frustrate him, and the ventromedial Pfc.  
NOTE Confidence: 0.85197616

00:32:42.640 --> 00:32:45.016 The reason why I wanted to show you  
NOTE Confidence: 0.85197616

00:32:45.016 --> 00:32:47.962 that is that then we also measured very  
NOTE Confidence: 0.85197616

00:32:47.962 --> 00:32:50.258 carefully how many days people were  
NOTE Confidence: 0.85197616

00:32:50.258 --> 00:32:52.722 abstinent and you can see the those  
NOTE Confidence: 0.85197616

00:32:52.722 --> 00:32:55.018 who had a short period of abstinence  
NOTE Confidence: 0.85197616

00:32:55.018 --> 00:32:57.599 which is marked here by short abstinence.  
NOTE Confidence: 0.85197616

00:32:57.600 --> 00:33:00.318 Really the mean being 5 days.  
NOTE Confidence: 0.85197616

00:33:00.320 --> 00:33:02.000 They, um, relapse or continued  
NOTE Confidence: 0.85197616

00:33:02.000 --> 00:33:03.680 with their heavy drinking during

NOTE Confidence: 0.85197616

00:33:03.733 --> 00:33:05.117 the early treatment phase.

NOTE Confidence: 0.85197616

00:33:05.120 --> 00:33:07.154 This is the first 14 days

NOTE Confidence: 0.85197616

00:33:07.154 --> 00:33:09.240 and you see that in fact,

NOTE Confidence: 0.85197616

00:33:09.240 --> 00:33:11.557 the number of days of abstinence is

NOTE Confidence: 0.85197616

00:33:11.557 --> 00:33:13.314 an important clinical marker and

NOTE Confidence: 0.85197616

00:33:13.314 --> 00:33:15.408 this is not surprising to clinicians.

NOTE Confidence: 0.85197616

00:33:15.410 --> 00:33:17.474 We know that if somebody drank

NOTE Confidence: 0.85197616

00:33:17.474 --> 00:33:19.190 yesterday or two days ago,

NOTE Confidence: 0.85197616

00:33:19.190 --> 00:33:21.926 they're going to have a hard time abstaining.

NOTE Confidence: 0.85197616

00:33:21.930 --> 00:33:22.272 Well,

NOTE Confidence: 0.85197616

00:33:22.272 --> 00:33:24.324 that's known across substances of abuse,

NOTE Confidence: 0.85197616

00:33:24.330 --> 00:33:25.242 and in fact,

NOTE Confidence: 0.85197616

00:33:25.242 --> 00:33:27.869 what we see here is that is the

NOTE Confidence: 0.85197616

00:33:27.869 --> 00:33:30.407 case they engage in heavy drinking.

NOTE Confidence: 0.85197616

00:33:30.410 --> 00:33:32.870 And the probability of no heavy

NOTE Confidence: 0.85197616



00:33:32.870 --> 00:33:35.057 drinking is much higher with  
NOTE Confidence: 0.85197616

00:33:35.057 --> 00:33:36.909 longer days of abstinence.  
NOTE Confidence: 0.85197616

00:33:36.910 --> 00:33:38.554 So we know that.  
NOTE Confidence: 0.85197616

00:33:38.554 --> 00:33:42.099 And now when we look into the brain,  
NOTE Confidence: 0.85197616

00:33:42.100 --> 00:33:42.828 in fact,  
NOTE Confidence: 0.85197616

00:33:42.828 --> 00:33:44.648 that that pathophysiology I was  
NOTE Confidence: 0.85197616

00:33:44.648 --> 00:33:47.287 showing you a blunted resilient coping  
NOTE Confidence: 0.85197616

00:33:47.287 --> 00:33:50.239 pathway with the ventromedial Pfc and  
NOTE Confidence: 0.85197616

00:33:50.239 --> 00:33:52.487 disruption in the neutral condition,  
NOTE Confidence: 0.85197616

00:33:52.490 --> 00:33:54.660 both in the ventral striatum.  
NOTE Confidence: 0.85197616

00:33:54.660 --> 00:33:57.174 An this extends into into the  
NOTE Confidence: 0.85197616

00:33:57.174 --> 00:33:59.501 hypothalamus and then some heightened  
NOTE Confidence: 0.85197616

00:33:59.501 --> 00:34:01.777 strial activation as well.  
NOTE Confidence: 0.85197616

00:34:01.780 --> 00:34:03.946 Is associated with a number of  
NOTE Confidence: 0.85197616

00:34:03.946 --> 00:34:05.750 absence days actually predicts that,  
NOTE Confidence: 0.85197616

00:34:05.750 --> 00:34:08.277 so this is an important clinical marker?

NOTE Confidence: 0.85197616  
00:34:08.280 --> 00:34:09.950 What about withdrawal in abstinence  
NOTE Confidence: 0.85197616  
00:34:09.950 --> 00:34:12.095 symptoms as we start to think  
NOTE Confidence: 0.85197616  
00:34:12.095 --> 00:34:13.328 about acute withdrawal,  
NOTE Confidence: 0.85197616  
00:34:13.330 --> 00:34:14.754 which are listed here,  
NOTE Confidence: 0.85197616  
00:34:14.754 --> 00:34:17.300 these are the withdrawal symptoms I've added.  
NOTE Confidence: 0.85197616  
00:34:17.300 --> 00:34:21.479 High craving as one of The Associated.  
NOTE Confidence: 0.85197616  
00:34:21.480 --> 00:34:24.070 Symptoms that that we see in folks  
NOTE Confidence: 0.85197616  
00:34:24.070 --> 00:34:25.180 during acute withdrawal,  
NOTE Confidence: 0.85197616  
00:34:25.180 --> 00:34:27.030 but also in early abstinence.  
NOTE Confidence: 0.85197616  
00:34:27.030 --> 00:34:29.454 And I'm going to show you data with  
NOTE Confidence: 0.85197616  
00:34:29.454 --> 00:34:31.874 folks again entering treatment if they  
NOTE Confidence: 0.85197616  
00:34:31.874 --> 00:34:34.059 were treated for acute withdrawal.  
NOTE Confidence: 0.85197616  
00:34:34.060 --> 00:34:35.170 Needed medical detox.  
NOTE Confidence: 0.85197616  
00:34:35.170 --> 00:34:37.390 They're entering treatment post that period,  
NOTE Confidence: 0.85197616  
00:34:37.390 --> 00:34:39.364 so everybody is coming in for  
NOTE Confidence: 0.85197616

00:34:39.364 --> 00:34:41.147 outpatient treatment and we evaluate

NOTE Confidence: 0.85197616

00:34:41.147 --> 00:34:43.167 them for their alcohol withdrawal

NOTE Confidence: 0.85197616

00:34:43.167 --> 00:34:44.783 symptoms and their craving,

NOTE Confidence: 0.85197616

00:34:44.790 --> 00:34:47.750 and in fact all of us know this.

NOTE Confidence: 0.85197616

00:34:47.750 --> 00:34:48.119 Again,

NOTE Confidence: 0.85197616

00:34:48.119 --> 00:34:50.333 it from the treatment field that

NOTE Confidence: 0.85197616

00:34:50.333 --> 00:34:52.990 there is a pretty high bar for.

NOTE Confidence: 0.85197616

00:34:52.990 --> 00:34:55.030 Of being.

NOTE Confidence: 0.85197616

00:34:55.030 --> 00:34:56.770 For gaining getting medical detox,

NOTE Confidence: 0.85197616

00:34:56.770 --> 00:34:59.245 I think you need an 8 or more on

NOTE Confidence: 0.85197616

00:34:59.245 --> 00:35:02.078 the Siwa scale for as the criteria

NOTE Confidence: 0.85197616

00:35:02.078 --> 00:35:03.730 for qualifying at SDRC.

NOTE Confidence: 0.85197616

00:35:03.730 --> 00:35:06.390 So people are turned away and so

NOTE Confidence: 0.85197616

00:35:06.390 --> 00:35:09.230 of course they go back out and they

NOTE Confidence: 0.85197616

00:35:09.230 --> 00:35:11.902 drink and so and or there in the

NOTE Confidence: 0.85197616

00:35:11.902 --> 00:35:14.507 Ed and they go back out and they

NOTE Confidence: 0.85197616  
00:35:14.507 --> 00:35:16.529 drink and you have this revolving  
NOTE Confidence: 0.85197616  
00:35:16.529 --> 00:35:18.000 door and that group.  
NOTE Confidence: 0.85197616  
00:35:18.000 --> 00:35:20.429 We tend to ignore when we think  
NOTE Confidence: 0.85197616  
00:35:20.429 --> 00:35:21.123 about recovery.  
NOTE Confidence: 0.85197616  
00:35:21.130 --> 00:35:23.692 Anne and we believe that in fact  
NOTE Confidence: 0.85197616  
00:35:23.692 --> 00:35:25.280 they are the most.  
NOTE Confidence: 0.85197616  
00:35:25.280 --> 00:35:27.458 Vulnerable and we need to target  
NOTE Confidence: 0.85197616  
00:35:27.458 --> 00:35:28.910 them for for sort  
NOTE Confidence: 0.8466963  
00:35:28.991 --> 00:35:31.606 of improving our treatment outcomes.  
NOTE Confidence: 0.8466963  
00:35:31.610 --> 00:35:33.986 Post withdrawal and during the relapse  
NOTE Confidence: 0.8466963  
00:35:33.986 --> 00:35:36.670 or during the early recovery phase.  
NOTE Confidence: 0.8466963  
00:35:36.670 --> 00:35:38.780 If you look at those  
NOTE Confidence: 0.8466963  
00:35:38.780 --> 00:35:40.046 alcohol withdrawal symptoms,  
NOTE Confidence: 0.8466963  
00:35:40.050 --> 00:35:42.020 they are actually quite correlated  
NOTE Confidence: 0.8466963  
00:35:42.020 --> 00:35:44.972 with other kinds of what we call  
NOTE Confidence: 0.8466963

00:35:44.972 --> 00:35:46.796 abstinence symptoms in addiction,  
NOTE Confidence: 0.8466963

00:35:46.800 --> 00:35:48.066 depression, depression, anxiety,  
NOTE Confidence: 0.8466963

00:35:48.066 --> 00:35:49.754 craving, poor sleep quality.  
NOTE Confidence: 0.8466963

00:35:49.760 --> 00:35:52.484 All of those are associated here  
NOTE Confidence: 0.8466963

00:35:52.484 --> 00:35:55.145 with withdrawal because we wanted to  
NOTE Confidence: 0.8466963

00:35:55.145 --> 00:35:57.833 put these together in the same the.  
NOTE Confidence: 0.8466963

00:35:57.840 --> 00:35:59.043 Alcohol withdrawal scores.  
NOTE Confidence: 0.8466963

00:35:59.043 --> 00:36:01.048 The Siwa scores were put  
NOTE Confidence: 0.8466963

00:36:01.048 --> 00:36:03.287 on a Z score scale here,  
NOTE Confidence: 0.8466963

00:36:03.290 --> 00:36:05.890 and you can see that those who have  
NOTE Confidence: 0.8466963

00:36:05.890 --> 00:36:08.712 low SUA scores and this is really two  
NOTE Confidence: 0.8466963

00:36:08.712 --> 00:36:12.094 or less versus 3 or more are quite  
NOTE Confidence: 0.8466963

00:36:12.094 --> 00:36:14.956 different in these other abstinence symptoms.  
NOTE Confidence: 0.8466963

00:36:14.960 --> 00:36:17.410 So right there we have a clinical  
NOTE Confidence: 0.8466963

00:36:17.410 --> 00:36:20.046 profile or folks that I don't think  
NOTE Confidence: 0.8466963

00:36:20.046 --> 00:36:21.936 we evaluate this these aspects

NOTE Confidence: 0.8466963

00:36:21.936 --> 00:36:23.509 very very thoroughly,

NOTE Confidence: 0.8466963

00:36:23.510 --> 00:36:25.066 thoroughly in outpatient treatment,

NOTE Confidence: 0.8466963

00:36:25.066 --> 00:36:27.400 and indeed the question would be,

NOTE Confidence: 0.8466963

00:36:27.400 --> 00:36:29.072 as I've shown you,

NOTE Confidence: 0.8466963

00:36:29.072 --> 00:36:30.326 some data already.

NOTE Confidence: 0.8466963

00:36:30.330 --> 00:36:32.941 That that the folks who have these

NOTE Confidence: 0.8466963

00:36:32.941 --> 00:36:35.607 higher or who are showing some

NOTE Confidence: 0.8466963

00:36:35.607 --> 00:36:38.541 symptoms of both craving an alcohol

NOTE Confidence: 0.8466963

00:36:38.541 --> 00:36:40.539 withdrawal and abstinence associated

NOTE Confidence: 0.8466963

00:36:40.539 --> 00:36:43.383 symptoms are in fact folks with

NOTE Confidence: 0.8466963

00:36:43.383 --> 00:36:46.698 the greatest neuro biological.

NOTE Confidence: 0.8466963

00:36:46.700 --> 00:36:48.896 Head so to speak or disruption,

NOTE Confidence: 0.8466963

00:36:48.900 --> 00:36:51.469 and can we target them for treatment.

NOTE Confidence: 0.8466963

00:36:51.470 --> 00:36:53.474 So Amy Arnsten Here in your

NOTE Confidence: 0.8466963

00:36:53.474 --> 00:36:55.283 science is a great collaborated

NOTE Confidence: 0.8466963

00:36:55.283 --> 00:36:58.076 with many of us and she's been.

NOTE Confidence: 0.8466963

00:36:58.080 --> 00:36:59.785 She's a prefrontal cortex physiologist

NOTE Confidence: 0.8466963

00:36:59.785 --> 00:37:01.962 Ann has put out this beautiful

NOTE Confidence: 0.8466963

00:37:01.962 --> 00:37:03.987 molecular mechanisms of how to

NOTE Confidence: 0.8466963

00:37:03.987 --> 00:37:06.012 protect the prefrontal cortex or

NOTE Confidence: 0.8466963

00:37:06.012 --> 00:37:07.717 rescue the prefrontal cortex under

NOTE Confidence: 0.8466963

00:37:07.717 --> 00:37:09.822 high levels of stress and some

NOTE Confidence: 0.8466963

00:37:09.822 --> 00:37:12.384 of the things she she put out.

NOTE Confidence: 0.8466963

00:37:12.390 --> 00:37:14.826 This is her work from the late

NOTE Confidence: 0.8466963

00:37:14.826 --> 00:37:16.430 90s and early 2000s.

NOTE Confidence: 0.8466963

00:37:16.430 --> 00:37:18.535 Word than origin ergic pathway

NOTE Confidence: 0.8466963

00:37:18.535 --> 00:37:20.219 in the northern ergic.

NOTE Confidence: 0.8466963

00:37:20.220 --> 00:37:21.036 Effects disruption,

NOTE Confidence: 0.8466963

00:37:21.036 --> 00:37:22.260 so to speak,

NOTE Confidence: 0.8466963

00:37:22.260 --> 00:37:24.522 in the cellular mechanisms that are

NOTE Confidence: 0.8466963

00:37:24.522 --> 00:37:26.760 driving stress related Pfc impairment.

NOTE Confidence: 0.8466963

00:37:26.760 --> 00:37:29.616 So we started to look at guanfacine

NOTE Confidence: 0.8466963

00:37:29.616 --> 00:37:30.432 and presence,

NOTE Confidence: 0.8466963

00:37:30.440 --> 00:37:33.044 and I'm just going to show you

NOTE Confidence: 0.8466963

00:37:33.044 --> 00:37:35.759 some of our process and data.

NOTE Confidence: 0.8466963

00:37:35.760 --> 00:37:37.895 We did a study with prazosin in

NOTE Confidence: 0.8466963

00:37:37.895 --> 00:37:40.167 just in our lab study provoking

NOTE Confidence: 0.8466963

00:37:40.167 --> 00:37:42.723 craving under stress in Q Conditions

NOTE Confidence: 0.8466963

00:37:42.723 --> 00:37:45.215 and found that process and

NOTE Confidence: 0.8466963

00:37:45.215 --> 00:37:47.203 decreases stress induced craving.

NOTE Confidence: 0.8466963

00:37:47.210 --> 00:37:48.842 Tracy Simpson and others.

NOTE Confidence: 0.8466963

00:37:48.842 --> 00:37:51.290 Did pilot studies 1st and then

NOTE Confidence: 0.8466963

00:37:51.365 --> 00:37:53.670 the largest study with prazosin

NOTE Confidence: 0.8466963

00:37:53.670 --> 00:37:55.514 for alcohol use disorder?

NOTE Confidence: 0.8466963

00:37:55.520 --> 00:37:58.016 This is with Murray Raskin and

NOTE Confidence: 0.8466963

00:37:58.016 --> 00:37:59.680 found some positive effects,

NOTE Confidence: 0.8466963



00:37:59.680 --> 00:38:01.336 but there's mixed data.  
NOTE Confidence: 0.8466963

00:38:01.336 --> 00:38:04.300 Our own doctor Petrakis at the VA  
NOTE Confidence: 0.8466963

00:38:04.300 --> 00:38:07.093 did a study with president in the  
NOTE Confidence: 0.8466963

00:38:07.093 --> 00:38:09.234 treatment about call use disorder  
NOTE Confidence: 0.8466963

00:38:09.234 --> 00:38:13.209 in found mixed, found no effects.  
NOTE Confidence: 0.8466963

00:38:13.210 --> 00:38:16.094 And So what could be going on?  
NOTE Confidence: 0.8466963

00:38:16.100 --> 00:38:17.291 Where, of course,  
NOTE Confidence: 0.8466963

00:38:17.291 --> 00:38:19.673 treating everybody with the drug our  
NOTE Confidence: 0.8466963

00:38:19.673 --> 00:38:22.870 data kept pointing to the fact that is  
NOTE Confidence: 0.8466963

00:38:22.870 --> 00:38:25.189 targeting stress induced alcohol craving.  
NOTE Confidence: 0.8466963

00:38:25.190 --> 00:38:26.838 It's helping with normalizing  
NOTE Confidence: 0.8466963

00:38:26.838 --> 00:38:28.486 the disrupted HPA axis,  
NOTE Confidence: 0.8466963

00:38:28.490 --> 00:38:31.122 and so we should focus on perhaps  
NOTE Confidence: 0.8466963

00:38:31.122 --> 00:38:33.450 those who are most affected.  
NOTE Confidence: 0.8466963

00:38:33.450 --> 00:38:35.510 Who could be most help,  
NOTE Confidence: 0.8466963

00:38:35.510 --> 00:38:35.906 perhaps?

NOTE Confidence: 0.8466963

00:38:35.906 --> 00:38:39.984 So we managed to get a grant funded by an

NOTE Confidence: 0.8466963

00:38:39.984 --> 00:38:43.360 I AAA to look at president versus placebo.

NOTE Confidence: 0.8466963

00:38:43.360 --> 00:38:45.928 Initially we thought we would focus.

NOTE Confidence: 0.8466963

00:38:45.930 --> 00:38:48.120 This on anxiety and look

NOTE Confidence: 0.8466963

00:38:48.120 --> 00:38:49.434 at anxiety disorders,

NOTE Confidence: 0.8466963

00:38:49.440 --> 00:38:51.780 but we were really not convinced

NOTE Confidence: 0.8466963

00:38:51.780 --> 00:38:54.270 that it's really about comorbidity.

NOTE Confidence: 0.8466963

00:38:54.270 --> 00:38:57.784 We thought it was much more about

NOTE Confidence: 0.8466963

00:38:57.784 --> 00:38:59.290 alcohol related applications

NOTE Confidence: 0.8584726

00:38:59.371 --> 00:39:02.602 and so we wanted to look at the alcohol,

NOTE Confidence: 0.8584726

00:39:02.610 --> 00:39:04.366 abstinence and withdrawal related

NOTE Confidence: 0.8584726

00:39:04.366 --> 00:39:07.000 effect as a potential moderate are.

NOTE Confidence: 0.8584726

00:39:07.000 --> 00:39:09.200 So we recruited 112 patients.

NOTE Confidence: 0.8584726

00:39:09.200 --> 00:39:11.951 100 folks initiated the study we used

NOTE Confidence: 0.8584726

00:39:11.951 --> 00:39:14.900 to see what to assess withdrawal.

NOTE Confidence: 0.8584726

00:39:14.900 --> 00:39:16.752 Drinking outcomes are measured.  
NOTE Confidence: 0.8584726

00:39:16.752 --> 00:39:19.067 The dose was tightened up,  
NOTE Confidence: 0.8584726

00:39:19.070 --> 00:39:21.080 titrated up over 2 weeks,  
NOTE Confidence: 0.8584726

00:39:21.080 --> 00:39:24.698 and we went up to 16 milligrams a day.  
NOTE Confidence: 0.8584726

00:39:24.700 --> 00:39:26.710 Mixed effects models were used.  
NOTE Confidence: 0.8584726

00:39:26.710 --> 00:39:27.592 Most importantly,  
NOTE Confidence: 0.8584726

00:39:27.592 --> 00:39:30.679 a lot of alcohol use disorder treatment  
NOTE Confidence: 0.8584726

00:39:30.679 --> 00:39:33.475 studies exclude people who are unable to  
NOTE Confidence: 0.8584726

00:39:33.475 --> 00:39:36.357 stay abstinent for five days or three days,  
NOTE Confidence: 0.8584726

00:39:36.360 --> 00:39:38.620 and naltrexone study early naltrexone  
NOTE Confidence: 0.8584726

00:39:38.620 --> 00:39:41.626 studies did not include those who who  
NOTE Confidence: 0.8584726

00:39:41.626 --> 00:39:43.985 could not be abstinent for five days.  
NOTE Confidence: 0.8584726

00:39:43.990 --> 00:39:46.000 We required no abstinence days  
NOTE Confidence: 0.8584726

00:39:46.000 --> 00:39:47.206 for treatment initiation,  
NOTE Confidence: 0.8584726

00:39:47.210 --> 00:39:48.722 so if you were.  
NOTE Confidence: 0.8584726

00:39:48.722 --> 00:39:51.020 Absent Today, you could get started

NOTE Confidence: 0.8584726

00:39:51.020 --> 00:39:54.300 and of course it was a titration.

NOTE Confidence: 0.8584726

00:39:54.300 --> 00:39:55.410 You know protocol,

NOTE Confidence: 0.8584726

00:39:55.410 --> 00:39:57.630 so it's not like they were

NOTE Confidence: 0.8584726

00:39:57.630 --> 00:39:59.537 getting full dose right away,

NOTE Confidence: 0.8584726

00:39:59.540 --> 00:40:01.405 or this was somehow treating

NOTE Confidence: 0.8584726

00:40:01.405 --> 00:40:02.897 their acute withdrawal symptoms.

NOTE Confidence: 0.8584726

00:40:02.900 --> 00:40:03.235 Nonetheless,

NOTE Confidence: 0.8584726

00:40:03.235 --> 00:40:05.245 they got engaged in treatment and

NOTE Confidence: 0.8584726

00:40:05.245 --> 00:40:07.390 were able to initiate treatment.

NOTE Confidence: 0.8584726

00:40:07.390 --> 00:40:10.043 I want to show you the significant

NOTE Confidence: 0.8584726

00:40:10.043 --> 00:40:11.963 moderation of processes benefit by

NOTE Confidence: 0.8584726

00:40:11.963 --> 00:40:14.117 alcohol withdrawal on the X axis.

NOTE Confidence: 0.8584726

00:40:14.120 --> 00:40:15.995 Here is the alcohol withdrawal

NOTE Confidence: 0.8584726

00:40:15.995 --> 00:40:18.299 scores at treatment entry in this

NOTE Confidence: 0.8584726

00:40:18.299 --> 00:40:20.477 is percent heavy drinking days Ann.

NOTE Confidence: 0.8584726

00:40:20.480 --> 00:40:22.820 Just any drinking days across  
NOTE Confidence: 0.8584726

00:40:22.820 --> 00:40:25.979 the weeks of full dose 3 to 12.  
NOTE Confidence: 0.8584726

00:40:25.980 --> 00:40:29.088 And you see here that are behavioral  
NOTE Confidence: 0.8584726

00:40:29.088 --> 00:40:31.330 counseling platform of 12 step  
NOTE Confidence: 0.8584726

00:40:31.330 --> 00:40:33.400 facilitation helped in everybody who  
NOTE Confidence: 0.8584726

00:40:33.400 --> 00:40:36.527 was in low in the low category but  
NOTE Confidence: 0.8584726

00:40:36.527 --> 00:40:38.966 just look at the placebo group just  
NOTE Confidence: 0.8584726

00:40:38.966 --> 00:40:41.470 ramping up as as you look at those  
NOTE Confidence: 0.8584726

00:40:41.549 --> 00:40:44.309 with higher withdrawal scores and in  
NOTE Confidence: 0.8584726

00:40:44.309 --> 00:40:46.990 fact prazosin flattening that completely.  
NOTE Confidence: 0.8584726

00:40:46.990 --> 00:40:49.456 Let's look at that by average.  
NOTE Confidence: 0.8584726

00:40:49.460 --> 00:40:52.652 Now here this is percent drinking days  
NOTE Confidence: 0.8584726

00:40:52.652 --> 00:40:55.609 and heavy drinking days and you say  
NOTE Confidence: 0.8584726

00:40:55.609 --> 00:40:58.190 see averaged across weeks 3 to 12.  
NOTE Confidence: 0.8584726

00:40:58.190 --> 00:41:01.032 A whopping difference in those in the  
NOTE Confidence: 0.8584726

00:41:01.032 --> 00:41:04.138 president group PR versus the placebo group.

NOTE Confidence: 0.8584726

00:41:04.140 --> 00:41:06.270 Right here in Week 12.

NOTE Confidence: 0.8584726

00:41:06.270 --> 00:41:07.545 Even more so,

NOTE Confidence: 0.8584726

00:41:07.545 --> 00:41:10.520 the placebo group going ramping back up.

NOTE Confidence: 0.8584726

00:41:10.520 --> 00:41:13.064 And of course, the president group

NOTE Confidence: 0.8584726

00:41:13.064 --> 00:41:14.336 maintaining their abstinence.

NOTE Confidence: 0.8584726

00:41:14.340 --> 00:41:16.470 Similarly, we looked at improvements.

NOTE Confidence: 0.8584726

00:41:16.470 --> 00:41:19.020 We looked at the other alcohol

NOTE Confidence: 0.8584726

00:41:19.020 --> 00:41:20.294 abstinence symptoms, anxiety,

NOTE Confidence: 0.8584726

00:41:20.294 --> 00:41:21.990 alcohol, craving and mood,

NOTE Confidence: 0.8584726

00:41:21.990 --> 00:41:23.400 and once again,

NOTE Confidence: 0.8584726

00:41:23.400 --> 00:41:25.280 alcohol withdrawal intersected and

NOTE Confidence: 0.8584726

00:41:25.280 --> 00:41:27.122 interacted with treatment prazosin

NOTE Confidence: 0.8584726

00:41:27.122 --> 00:41:29.294 and showed an impact on anxiety.

NOTE Confidence: 0.8584726

00:41:29.300 --> 00:41:31.370 Craving and mood and that's presented

NOTE Confidence: 0.8584726

00:41:31.370 --> 00:41:33.487 in the paper that is impressed

NOTE Confidence: 0.8584726

00:41:33.487 --> 00:41:35.509 and should be coming out soon.

NOTE Confidence: 0.8584726

00:41:35.510 --> 00:41:36.890 So in conclusion,

NOTE Confidence: 0.8584726

00:41:36.890 --> 00:41:40.790 I want to wrap it up to just.

NOTE Confidence: 0.8584726

00:41:40.790 --> 00:41:43.779 Conclude that I hope I've shown you.

NOTE Confidence: 0.8584726

00:41:43.780 --> 00:41:46.336 I know it's gone fairly quickly,

NOTE Confidence: 0.8584726

00:41:46.340 --> 00:41:49.266 but that we have evidence of putting

NOTE Confidence: 0.8584726

00:41:49.266 --> 00:41:51.023 alcohol related adaptations in

NOTE Confidence: 0.8584726

00:41:51.023 --> 00:41:52.747 the stress pathways autonomic,

NOTE Confidence: 0.8584726

00:41:52.750 --> 00:41:55.306 which I didn't show you much,

NOTE Confidence: 0.8584726

00:41:55.310 --> 00:41:58.299 but you want trust me on that.

NOTE Confidence: 0.8584726

00:41:58.300 --> 00:42:01.289 It looks quite like the HPA axis,

NOTE Confidence: 0.8584726

00:42:01.290 --> 00:42:03.420 disruption of the HPA axis

NOTE Confidence: 0.8584726

00:42:03.420 --> 00:42:04.698 neural circuit disruption,

NOTE Confidence: 0.8584726

00:42:04.700 --> 00:42:06.444 particularly targeting the instrumental

NOTE Confidence: 0.8584726

00:42:06.444 --> 00:42:08.188 learning reward motivation circuits

NOTE Confidence: 0.8584726

00:42:08.188 --> 00:42:10.680 that are important in resilient coping,

NOTE Confidence: 0.8584726

00:42:10.680 --> 00:42:13.359 important in reward.

NOTE Confidence: 0.8584726

00:42:13.360 --> 00:42:16.786 Assessment as well as that that's

NOTE Confidence: 0.8584726

00:42:16.786 --> 00:42:19.590 such disruption promotes relapse risk,

NOTE Confidence: 0.8584726

00:42:19.590 --> 00:42:21.312 jeopardizes alcohol recovery,

NOTE Confidence: 0.8584726

00:42:21.312 --> 00:42:24.182 but there are individual differences

NOTE Confidence: 0.8584726

00:42:24.182 --> 00:42:28.087 and we want to capture those individual

NOTE Confidence: 0.8584726

00:42:28.087 --> 00:42:30.762 differences and translate that into

NOTE Confidence: 0.7920758

00:42:30.841 --> 00:42:34.644 markers. Bio behavioral markers that can be

NOTE Confidence: 0.7920758

00:42:34.644 --> 00:42:38.919 clinical as well as neural or biological.

NOTE Confidence: 0.7920758

00:42:38.920 --> 00:42:41.363 So we want to utilize those moderate

NOTE Confidence: 0.7920758

00:42:41.363 --> 00:42:43.183 yrs and biobehavioral markers to

NOTE Confidence: 0.7920758

00:42:43.183 --> 00:42:45.668 identify and treat those who are most

NOTE Confidence: 0.7920758

00:42:45.668 --> 00:42:47.408 vulnerable for treatment failure.

NOTE Confidence: 0.7920758

00:42:47.410 --> 00:42:49.618 Apply them in the clinical setting.

NOTE Confidence: 0.7920758

00:42:49.620 --> 00:42:51.092 Of course, test whether

NOTE Confidence: 0.7920758



00:42:51.092 --> 00:42:52.196 that application works,  
NOTE Confidence: 0.7920758

00:42:52.200 --> 00:42:53.680 whether it's severely abstinence.  
NOTE Confidence: 0.7920758

00:42:53.680 --> 00:42:54.790 Daisy was scores,  
NOTE Confidence: 0.7920758

00:42:54.790 --> 00:42:56.998 some of these people do clinically,  
NOTE Confidence: 0.7920758

00:42:57.000 --> 00:42:59.322 but we haven't had treatment options  
NOTE Confidence: 0.7920758

00:42:59.322 --> 00:43:01.794 as we identify those who are who  
NOTE Confidence: 0.7920758

00:43:01.794 --> 00:43:04.280 are more severe and so we want to  
NOTE Confidence: 0.7920758

00:43:04.280 --> 00:43:06.385 develop specific treatments to target  
NOTE Confidence: 0.7920758

00:43:06.385 --> 00:43:09.396 those who are showing this kind of  
NOTE Confidence: 0.7920758

00:43:09.396 --> 00:43:11.164 stress pathophysiology to improve.  
NOTE Confidence: 0.7920758

00:43:11.170 --> 00:43:14.560 Treatment outcomes, so with that.  
NOTE Confidence: 0.7920758

00:43:14.560 --> 00:43:17.496 I want to thank you for your attention.  
NOTE Confidence: 0.7920758

00:43:17.500 --> 00:43:21.118 I'm happy to answer questions and.  
NOTE Confidence: 0.7920758

00:43:21.120 --> 00:43:23.272 Then have a discussion.  
NOTE Confidence: 0.7920758

00:43:23.272 --> 00:43:24.348 Thank you.  
NOTE Confidence: 0.7920758

00:43:24.350 --> 00:43:27.325 I should also before I conclude I

NOTE Confidence: 0.7920758

00:43:27.325 --> 00:43:29.818 want to acknowledge that many other

NOTE Confidence: 0.7920758

00:43:29.818 --> 00:43:32.457 folks have done this work and I

NOTE Confidence: 0.7920758

00:43:32.542 --> 00:43:35.853 could not have done it without the

NOTE Confidence: 0.7920758

00:43:35.853 --> 00:43:38.092 amazing collaborators of the Elstra

NOTE Confidence: 0.7920758

00:43:38.092 --> 00:43:40.934 Center near Fogleman has done a lot

NOTE Confidence: 0.7920758

00:43:40.934 --> 00:43:44.167 of the more recent analysis you saw.

NOTE Confidence: 0.7920758

00:43:44.170 --> 00:43:46.756 Sarah Blaine's papers that were cited,

NOTE Confidence: 0.7920758

00:43:46.760 --> 00:43:48.900 Lizzie Goldfarb has is involved

NOTE Confidence: 0.7920758

00:43:48.900 --> 00:43:51.500 in number of the studies done.

NOTE Confidence: 0.7920758

00:43:51.500 --> 00:43:52.925 Juicio Stephanie Wham.

NOTE Confidence: 0.7920758

00:43:52.925 --> 00:43:55.164 Vera, Camilla Balvich, Helen Fox,

NOTE Confidence: 0.7920758

00:43:55.164 --> 00:43:58.016 who used to be here, of course,

NOTE Confidence: 0.7920758

00:43:58.016 --> 00:44:01.352 our imaging partners, constable and Dustin.

NOTE Confidence: 0.7920758

00:44:01.352 --> 00:44:02.760 She knows.

NOTE Confidence: 0.7920758

00:44:02.760 --> 00:44:04.710 New technology that seem ACC in

NOTE Confidence: 0.7920758

00:44:04.710 --> 00:44:07.380 are you staff and the CNR you for  
NOTE Confidence: 0.7920758

00:44:07.380 --> 00:44:09.710 supporting my work over the years and  
NOTE Confidence: 0.7920758

00:44:09.710 --> 00:44:12.182 all of the work that we've been doing,  
NOTE Confidence: 0.7920758

00:44:12.190 --> 00:44:14.577 we could not have done the carefully  
NOTE Confidence: 0.7920758

00:44:14.577 --> 00:44:16.089 controlled studies without the CNR.  
NOTE Confidence: 0.7920758

00:44:16.090 --> 00:44:17.065 You being there.  
NOTE Confidence: 0.7920758

00:44:17.065 --> 00:44:18.040 And of course,  
NOTE Confidence: 0.7920758

00:44:18.040 --> 00:44:19.978 folks at the stress center and  
NOTE Confidence: 0.7920758

00:44:19.978 --> 00:44:21.939 the NIH was supporting this work,  
NOTE Confidence: 0.7920758

00:44:21.940 --> 00:44:22.909 so thank you.  
NOTE Confidence: 0.9423989

00:44:27.680 --> 00:44:29.338 I'm happy to take questions.  
NOTE Confidence: 0.85877365

00:44:38.040 --> 00:44:39.084 Yes, this is Stephanie.  
NOTE Confidence: 0.85877365

00:44:39.084 --> 00:44:41.111 I just want to say that was  
NOTE Confidence: 0.85877365

00:44:41.111 --> 00:44:42.320 a beautiful presentation.  
NOTE Confidence: 0.85877365

00:44:42.320 --> 00:44:44.456 It was so great to see this really  
NOTE Confidence: 0.85877365

00:44:44.456 --> 00:44:45.919 well integrated line of research

NOTE Confidence: 0.85877365

00:44:45.919 --> 00:44:47.653 that you've been pursuing for so

NOTE Confidence: 0.85877365

00:44:47.653 --> 00:44:50.164 many years and I think it's certainly

NOTE Confidence: 0.85877365

00:44:50.164 --> 00:44:52.138 interdigitate's with, as you say,

NOTE Confidence: 0.85877365

00:44:52.138 --> 00:44:54.218 some of the clinical information

NOTE Confidence: 0.85877365

00:44:54.218 --> 00:44:56.970 we know as you talked about it.

NOTE Confidence: 0.85877365

00:44:56.970 --> 00:44:58.656 Number of days absence prior to

NOTE Confidence: 0.85877365

00:44:58.656 --> 00:45:00.161 treatment entry is the strongest

NOTE Confidence: 0.85877365

00:45:00.161 --> 00:45:01.766 predictor of how people do,

NOTE Confidence: 0.85877365

00:45:01.770 --> 00:45:04.170 and so the fact that you can work

NOTE Confidence: 0.85877365

00:45:04.170 --> 00:45:05.610 on some treatments that could

NOTE Confidence: 0.85877365

00:45:05.610 --> 00:45:07.320 mitigate that risk for people in

NOTE Confidence: 0.85877365

00:45:07.373 --> 00:45:08.968 early absence is really terrific.

NOTE Confidence: 0.85877365

00:45:08.970 --> 00:45:11.392 So thank you very much for the

NOTE Confidence: 0.85877365

00:45:11.392 --> 00:45:14.278 talk and for the work you're doing.

NOTE Confidence: 0.85877365

00:45:14.280 --> 00:45:17.199 Regina, you might want to stop screen

NOTE Confidence: 0.85877365

00:45:17.199 --> 00:45:19.284 sharing. OK, great, thank you.

NOTE Confidence: 0.85877365

00:45:19.284 --> 00:45:23.309 Yeah, that helps. Thank you Stephanie.

NOTE Confidence: 0.85877365

00:45:23.309 --> 00:45:24.338 I was very,

NOTE Confidence: 0.85877365

00:45:24.340 --> 00:45:27.460 very kind of you to to put that

NOTE Confidence: 0.85877365

00:45:27.460 --> 00:45:30.272 in perspective and in fact you're

NOTE Confidence: 0.85877365

00:45:30.272 --> 00:45:31.727 right the naltrexone.

NOTE Confidence: 0.85877365

00:45:31.730 --> 00:45:33.592 I think it was the New England

NOTE Confidence: 0.85877365

00:45:33.592 --> 00:45:35.717 Journal paper or the JAMA paper that

NOTE Confidence: 0.85877365

00:45:35.717 --> 00:45:37.619 showed that strong predictor of days

NOTE Confidence: 0.85877365

00:45:37.677 --> 00:45:39.657 of abstinence on treatment outcome.

NOTE Confidence: 0.86301905

00:45:44.890 --> 00:45:48.430 Any other thoughts so questions? Regina

NOTE Confidence: 0.7751777

00:45:48.430 --> 00:45:49.700 this is this is Chris.

NOTE Confidence: 0.7751777

00:45:49.700 --> 00:45:50.706 I second stephanie's comments.

NOTE Confidence: 0.7751777

00:45:50.706 --> 00:45:51.980 It was beautiful to see

NOTE Confidence: 0.7751777

00:45:51.980 --> 00:45:54.584 though let work put together so nicely.

NOTE Confidence: 0.7751777

00:45:54.590 --> 00:45:57.595 I want to ask about the model that

NOTE Confidence: 0.7751777

00:45:57.595 --> 00:45:59.320 you presented about halfway through

NOTE Confidence: 0.7751777

00:45:59.320 --> 00:46:01.457 where the chronic drinkers have

NOTE Confidence: 0.7751777

00:46:01.457 --> 00:46:03.233 elevated elevated baseline court,

NOTE Confidence: 0.7751777

00:46:03.233 --> 00:46:04.804 but a reduced induction

NOTE Confidence: 0.7751777

00:46:04.804 --> 00:46:06.772 of court appan alcohol an.

NOTE Confidence: 0.7751777

00:46:06.772 --> 00:46:09.380 You hypothesize that that that they

NOTE Confidence: 0.7751777

00:46:09.380 --> 00:46:11.655 have they need repeated drinks

NOTE Confidence: 0.7751777

00:46:11.655 --> 00:46:14.609 to get a higher level of court.

NOTE Confidence: 0.7751777

00:46:14.610 --> 00:46:16.692 But are you implying that there's a

NOTE Confidence: 0.7751777

00:46:16.692 --> 00:46:18.837 homeostatic drive to a cheat to get

NOTE Confidence: 0.7751777

00:46:18.837 --> 00:46:20.713 back to that higher level of court?

NOTE Confidence: 0.7751777

00:46:20.720 --> 00:46:22.440 'cause that's not intuitive to me

NOTE Confidence: 0.7751777

00:46:22.440 --> 00:46:24.090 that there would be a homeostatic

NOTE Confidence: 0.7751777

00:46:24.090 --> 00:46:26.246 drive to get a higher stress signal,

NOTE Confidence: 0.7751777

00:46:26.250 --> 00:46:30.085 so I wonder if you could help me understand,

NOTE Confidence: 0.7751777

00:46:30.085 --> 00:46:30.780 yeah?  
NOTE Confidence: 0.7751777

00:46:30.780 --> 00:46:33.283 How that would work as it's an intriguing  
NOTE Confidence: 0.7751777

00:46:33.283 --> 00:46:35.787 model and it fits the data you have,  
NOTE Confidence: 0.7751777

00:46:35.790 --> 00:46:37.668 but I don't understand that that  
NOTE Confidence: 0.7751777

00:46:37.668 --> 00:46:38.920 that further out prediction.  
NOTE Confidence: 0.7751777

00:46:38.920 --> 00:46:40.798 Yeah, thank you Chris, for asking.  
NOTE Confidence: 0.7751777

00:46:40.800 --> 00:46:43.296 I know I went over that very quickly.  
NOTE Confidence: 0.7751777

00:46:43.300 --> 00:46:44.632 Well, you know historically.  
NOTE Confidence: 0.7751777

00:46:44.632 --> 00:46:47.549 The thinking was that we want a blunt or  
NOTE Confidence: 0.7751777

00:46:47.549 --> 00:46:49.558 reduce stress response is a good thing.  
NOTE Confidence: 0.7751777

00:46:49.560 --> 00:46:52.056 So if you don't have a stress response,  
NOTE Confidence: 0.7751777

00:46:52.060 --> 00:46:53.316 that's a good thing.  
NOTE Confidence: 0.7751777

00:46:53.316 --> 00:46:54.258 But in fact,  
NOTE Confidence: 0.7751777

00:46:54.260 --> 00:46:56.444 all of the data that are coming  
NOTE Confidence: 0.7751777

00:46:56.444 --> 00:46:58.946 out in the last 15 to 20 years.  
NOTE Confidence: 0.7751777

00:46:58.950 --> 00:47:00.876 And as we are thinking about.

NOTE Confidence: 0.7751777

00:47:00.880 --> 00:47:02.775 Brazilian circuits what is coming

NOTE Confidence: 0.7751777

00:47:02.775 --> 00:47:05.820 to the fore is that in fact you

NOTE Confidence: 0.7751777

00:47:05.820 --> 00:47:07.610 want a good stress response.

NOTE Confidence: 0.7751777

00:47:07.610 --> 00:47:10.594 What we need is a robust stress response.

NOTE Confidence: 0.7751777

00:47:10.600 --> 00:47:13.252 When we are faced with stressors

NOTE Confidence: 0.7751777

00:47:13.252 --> 00:47:15.020 that central glucocorticoids are

NOTE Confidence: 0.7751777

00:47:15.088 --> 00:47:17.332 really important to to get the

NOTE Confidence: 0.7751777

00:47:17.332 --> 00:47:19.480 stress circuit going and then you

NOTE Confidence: 0.7751777

00:47:19.480 --> 00:47:21.816 will need it to come down and even

NOTE Confidence: 0.7751777

00:47:21.820 --> 00:47:23.424 outside of central mechanisms.

NOTE Confidence: 0.7751777

00:47:23.424 --> 00:47:25.429 If you look at peripherally

NOTE Confidence: 0.7751777

00:47:25.429 --> 00:47:27.060 and you look at folks,

NOTE Confidence: 0.7751777

00:47:27.060 --> 00:47:28.556 even their subjective and

NOTE Confidence: 0.7751777

00:47:28.556 --> 00:47:29.678 cognitive coping mechanisms,

NOTE Confidence: 0.7751777

00:47:29.680 --> 00:47:31.670 you see folks reporting stress.

NOTE Confidence: 0.7751777



00:47:31.670 --> 00:47:33.470 And then they come down.  
NOTE Confidence: 0.7751777

00:47:33.470 --> 00:47:36.692 And so number of folks have looked at this,  
NOTE Confidence: 0.7751777

00:47:36.700 --> 00:47:38.614 and the newer thinking is that  
NOTE Confidence: 0.7751777

00:47:38.614 --> 00:47:40.762 we need a robust stress response  
NOTE Confidence: 0.7751777

00:47:40.762 --> 00:47:43.156 with all aspects of it working.  
NOTE Confidence: 0.7751777

00:47:43.160 --> 00:47:45.842 The rise as well as the down and what  
NOTE Confidence: 0.7751777

00:47:45.842 --> 00:47:48.771 we see now here is a disruption of  
NOTE Confidence: 0.7751777

00:47:48.771 --> 00:47:51.060 that with chronic alcohol states.  
NOTE Confidence: 0.7751777

00:47:51.060 --> 00:47:53.356 Now we have evidence that early trauma  
NOTE Confidence: 0.7751777

00:47:53.356 --> 00:47:55.360 exposure an with repeated trauma,  
NOTE Confidence: 0.7751777

00:47:55.360 --> 00:47:57.262 this stress response as we think  
NOTE Confidence: 0.7751777

00:47:57.262 --> 00:47:59.933 of the HPA axis or the Autonomic  
NOTE Confidence: 0.7751777

00:47:59.933 --> 00:48:01.709 Response Arousal under stress.  
NOTE Confidence: 0.7751777

00:48:01.710 --> 00:48:04.552 Is disrupted and So what we see  
NOTE Confidence: 0.7751777

00:48:04.552 --> 00:48:06.650 is a shift baseley.  
NOTE Confidence: 0.7751777

00:48:06.650 --> 00:48:09.110 And then it blunted stress response,

NOTE Confidence: 0.7751777

00:48:09.110 --> 00:48:12.390 even if when you don't think of alcohol.

NOTE Confidence: 0.7751777

00:48:12.390 --> 00:48:14.622 Just think about the shift baseley

NOTE Confidence: 0.7751777

00:48:14.622 --> 00:48:17.309 and then a blunted stress response.

NOTE Confidence: 0.7751777

00:48:17.310 --> 00:48:18.489 And in fact,

NOTE Confidence: 0.7751777

00:48:18.489 --> 00:48:21.240 that's what we saw even with stress

NOTE Confidence: 0.7751777

00:48:21.328 --> 00:48:24.079 here in the in the bench heavy

NOTE Confidence: 0.7751777

00:48:24.079 --> 00:48:26.330 drinkers prior to drinking an.

NOTE Confidence: 0.7751777

00:48:26.330 --> 00:48:28.710 That is what led us to start

NOTE Confidence: 0.7751777

00:48:28.710 --> 00:48:31.250 thinking about a dysfunctional need.

NOTE Confidence: 0.7751777

00:48:31.250 --> 00:48:32.070 Because clearly,

NOTE Confidence: 0.7751777

00:48:32.070 --> 00:48:34.940 if your Basil is still up in,

NOTE Confidence: 0.7751777

00:48:34.940 --> 00:48:37.894 you are trying to get the response

NOTE Confidence: 0.7751777

00:48:37.894 --> 00:48:38.738 state backup.

NOTE Confidence: 0.7751777

00:48:38.740 --> 00:48:40.666 It's it's going to remain dysfunctional,

NOTE Confidence: 0.7751777

00:48:40.670 --> 00:48:43.230 but that there is, in fact a drive.

NOTE Confidence: 0.7751777

00:48:43.230 --> 00:48:45.939 We are starting to go back to the model  
NOTE Confidence: 0.7751777

00:48:45.939 --> 00:48:49.322 of a drive to come back to have our response,  
NOTE Confidence: 0.7751777

00:48:49.330 --> 00:48:50.935 because in fact having a  
NOTE Confidence: 0.7751777

00:48:50.935 --> 00:48:52.540 response is is innately an.  
NOTE Confidence: 0.7751777

00:48:52.540 --> 00:48:53.824 Instinctively the drive that  
NOTE Confidence: 0.7751777

00:48:53.824 --> 00:48:55.750 should help us adapt and survive,  
NOTE Confidence: 0.86592585

00:48:55.750 --> 00:48:57.997 and so that that's the way we're  
NOTE Confidence: 0.86592585

00:48:57.997 --> 00:48:59.609 starting to think about it.  
NOTE Confidence: 0.86592585

00:48:59.610 --> 00:49:02.780 Does that make sense? It  
NOTE Confidence: 0.8041148

00:49:02.780 --> 00:49:04.204 does that. Thank you.  
NOTE Confidence: 0.8041148

00:49:04.204 --> 00:49:06.350 It does make sense. The mechanisms  
NOTE Confidence: 0.8041148

00:49:06.350 --> 00:49:08.838 whereby that drug might happen or going to  
NOTE Confidence: 0.8041148

00:49:08.838 --> 00:49:11.698 be an interesting thing to tease apart.  
NOTE Confidence: 0.8041148

00:49:11.700 --> 00:49:12.771 Those aren't clear,  
NOTE Confidence: 0.8041148

00:49:12.771 --> 00:49:14.913 but but it makes more sense.  
NOTE Confidence: 0.8041148

00:49:14.920 --> 00:49:17.056 Thank you. Yeah, we have evidence.

NOTE Confidence: 0.8041148

00:49:17.060 --> 00:49:19.076 I will say Well haven't shown this

NOTE Confidence: 0.8041148

00:49:19.076 --> 00:49:20.766 'cause this is all preliminary

NOTE Confidence: 0.8041148

00:49:20.766 --> 00:49:22.676 and not preliminary analysis and

NOTE Confidence: 0.8041148

00:49:22.676 --> 00:49:25.050 suddenly not put out there that

NOTE Confidence: 0.8041148

00:49:25.050 --> 00:49:26.990 that that blended responding is

NOTE Confidence: 0.8041148

00:49:26.990 --> 00:49:28.856 directly associated with the blunted

NOTE Confidence: 0.8041148

00:49:28.856 --> 00:49:30.666 response in the resilient coping

NOTE Confidence: 0.8041148

00:49:30.666 --> 00:49:32.900 circuit an in the ventromedial Pfc.

NOTE Confidence: 0.8041148

00:49:32.900 --> 00:49:34.825 And the straddle systems which

NOTE Confidence: 0.8041148

00:49:34.825 --> 00:49:36.365 do in fact show.

NOTE Confidence: 0.8041148

00:49:36.370 --> 00:49:39.100 And it's been written about the hypo

NOTE Confidence: 0.8041148

00:49:39.100 --> 00:49:40.989 dopaminergic state with heavy use.

NOTE Confidence: 0.8041148

00:49:40.990 --> 00:49:42.094 Heavy drug use,

NOTE Confidence: 0.8041148

00:49:42.094 --> 00:49:44.302 heavy alcohol use an in patients

NOTE Confidence: 0.8041148

00:49:44.302 --> 00:49:46.302 has been documented and we're

NOTE Confidence: 0.8041148

00:49:46.302 --> 00:49:49.070 picking it up here in various ways,  
NOTE Confidence: 0.8041148

00:49:49.070 --> 00:49:51.494 and we're sort of thinking that  
NOTE Confidence: 0.8041148

00:49:51.494 --> 00:49:53.110 that Central court mechanisms  
NOTE Confidence: 0.8041148

00:49:53.177 --> 00:49:55.229 have something to do with that.  
NOTE Confidence: 0.8620919

00:49:58.000 --> 00:50:01.184 Regina, you have a question in the chat  
NOTE Confidence: 0.8620919

00:50:01.184 --> 00:50:03.930 from Sally's hotel says any speculation  
NOTE Confidence: 0.8620919

00:50:03.930 --> 00:50:06.732 on what these patients or subjects  
NOTE Confidence: 0.8620919

00:50:06.814 --> 00:50:09.922 looked like in terms of stress response  
NOTE Confidence: 0.8620919

00:50:09.922 --> 00:50:12.589 before alcohol use was ever initiated.  
NOTE Confidence: 0.84993327

00:50:14.010 --> 00:50:15.458 Yeah, thank you Sally.  
NOTE Confidence: 0.84993327

00:50:15.458 --> 00:50:16.906 That's a great question.  
NOTE Confidence: 0.84993327

00:50:16.910 --> 00:50:18.725 Those are sort of moderate  
NOTE Confidence: 0.84993327

00:50:18.725 --> 00:50:20.177 yrs and risk factors.  
NOTE Confidence: 0.84993327

00:50:20.180 --> 00:50:21.995 Sort of studies that were  
NOTE Confidence: 0.84993327

00:50:21.995 --> 00:50:23.447 going down the road.  
NOTE Confidence: 0.7913043

00:50:25.890 --> 00:50:29.096 I we have a sense of it,

NOTE Confidence: 0.7913043

00:50:29.100 --> 00:50:31.836 we have some sense of it.

NOTE Confidence: 0.7913043

00:50:31.840 --> 00:50:34.240 There are the sex differences start

NOTE Confidence: 0.7913043

00:50:34.240 --> 00:50:37.511 to come in 'cause the stress response

NOTE Confidence: 0.7913043

00:50:37.511 --> 00:50:39.627 is highly sexually dimorphic.

NOTE Confidence: 0.7913043

00:50:39.630 --> 00:50:41.920 So women, girls, an boys,

NOTE Confidence: 0.7913043

00:50:41.920 --> 00:50:44.881 are somewhat different in the way they

NOTE Confidence: 0.7913043

00:50:44.881 --> 00:50:47.419 are activating the striedl pathway,

NOTE Confidence: 0.7913043

00:50:47.420 --> 00:50:49.810 and this ventromedial Pfc and

NOTE Confidence: 0.7913043

00:50:49.810 --> 00:50:51.722 there's amygdala differences as

NOTE Confidence: 0.7913043

00:50:51.722 --> 00:50:54.792 well that are feeding into this sort

NOTE Confidence: 0.7913043

00:50:54.792 --> 00:50:57.110 of limbic striatal circuit that's

NOTE Confidence: 0.7913043

00:50:57.110 --> 00:50:59.370 critical for emotion regulation.

NOTE Confidence: 0.7913043

00:50:59.370 --> 00:51:02.681 So I don't have the data out

NOTE Confidence: 0.7913043

00:51:02.681 --> 00:51:04.100 ready to present,

NOTE Confidence: 0.7913043

00:51:04.100 --> 00:51:07.756 but I can say this that we're seeing

NOTE Confidence: 0.7913043

00:51:07.756 --> 00:51:10.248 really interesting parallels to pain.

NOTE Confidence: 0.7913043

00:51:10.250 --> 00:51:11.194 For example,

NOTE Confidence: 0.7913043

00:51:11.194 --> 00:51:13.554 emotional pain and physical pain,

NOTE Confidence: 0.7913043

00:51:13.560 --> 00:51:14.979 and blunted responding,

NOTE Confidence: 0.7913043

00:51:14.979 --> 00:51:16.398 particularly in women,

NOTE Confidence: 0.7913043

00:51:16.400 --> 00:51:19.238 seems to be a risk factor,

NOTE Confidence: 0.7913043

00:51:19.240 --> 00:51:21.320 so there are some,

NOTE Confidence: 0.7913043

00:51:21.320 --> 00:51:25.158 which is why I had that factor

NOTE Confidence: 0.7913043

00:51:25.158 --> 00:51:29.274 in that there are some sort of.

NOTE Confidence: 0.7913043

00:51:29.280 --> 00:51:30.950 Factors and the related biology

NOTE Confidence: 0.7913043

00:51:30.950 --> 00:51:33.021 that going into the phase of

NOTE Confidence: 0.7913043

00:51:33.021 --> 00:51:34.041 experimenting and drinking

NOTE Confidence: 0.7913043

00:51:34.041 --> 00:51:36.081 is going to make people more

NOTE Confidence: 0.7913043

00:51:36.140 --> 00:51:37.838 vulnerable towards addiction,

NOTE Confidence: 0.7913043

00:51:37.840 --> 00:51:40.036 but there's still a lot more

NOTE Confidence: 0.7913043

00:51:40.036 --> 00:51:42.670 work to be done in that area.

NOTE Confidence: 0.917723

00:51:48.800 --> 00:51:51.347 You know, I, I really wanted us to talk.

NOTE Confidence: 0.917723

00:51:51.350 --> 00:51:55.166 I mean, it's been really close to my heart.

NOTE Confidence: 0.917723

00:51:55.170 --> 00:51:57.144 Work that that we start to really

NOTE Confidence: 0.917723

00:51:57.144 --> 00:51:59.120 understand the drug related adaptations.

NOTE Confidence: 0.917723

00:51:59.120 --> 00:52:01.088 If we can't sort that out,

NOTE Confidence: 0.917723

00:52:01.090 --> 00:52:03.076 it's really hard when we start

NOTE Confidence: 0.917723

00:52:03.076 --> 00:52:05.645 to do 2 by two or say, well,

NOTE Confidence: 0.917723

00:52:05.645 --> 00:52:07.570 this person has trauma and the drugs

NOTE Confidence: 0.917723

00:52:07.570 --> 00:52:10.060 we don't really know whether those are

NOTE Confidence: 0.917723

00:52:10.060 --> 00:52:11.945 additive effects or synergistic effects.

NOTE Confidence: 0.917723

00:52:11.950 --> 00:52:14.574 So if there are ways to design experiments,

NOTE Confidence: 0.917723

00:52:14.580 --> 00:52:16.446 which is what we've been obsessed

NOTE Confidence: 0.917723

00:52:16.446 --> 00:52:18.722 with to really kind of manipulate the

NOTE Confidence: 0.917723

00:52:18.722 --> 00:52:20.660 drug related effects an then bring

NOTE Confidence: 0.917723

00:52:20.660 --> 00:52:23.083 in other risk factors there maybe it

NOTE Confidence: 0.917723



00:52:23.083 --> 00:52:25.110 might help us understand it better.  
NOTE Confidence: 0.91042244

00:52:39.660 --> 00:52:40.989 The questions comments.  
NOTE Confidence: 0.916247

00:52:52.150 --> 00:52:53.248 Everything was clear.  
NOTE Confidence: 0.875985

00:52:57.410 --> 00:53:00.218 And there's a a comment that was a  
NOTE Confidence: 0.875985

00:53:00.218 --> 00:53:02.677 question that was made to be private.  
NOTE Confidence: 0.875985

00:53:02.680 --> 00:53:04.678 Can you speak to agent cognitive  
NOTE Confidence: 0.875985

00:53:04.678 --> 00:53:06.439 decline as moderators of treatment  
NOTE Confidence: 0.875985

00:53:06.439 --> 00:53:08.289 response in the early phase?  
NOTE Confidence: 0.875985

00:53:08.290 --> 00:53:10.045 How do these factors relate  
NOTE Confidence: 0.875985

00:53:10.045 --> 00:53:11.449 to the stress response?  
NOTE Confidence: 0.8383515

00:53:14.070 --> 00:53:15.898 That's a great question.  
NOTE Confidence: 0.8383515

00:53:15.898 --> 00:53:18.980 We don't know very much about it.  
NOTE Confidence: 0.8383515

00:53:18.980 --> 00:53:21.210 We do know that age,  
NOTE Confidence: 0.8383515

00:53:21.210 --> 00:53:25.165 an age related declines in in frontal  
NOTE Confidence: 0.8383515

00:53:25.165 --> 00:53:28.890 systems could have an effect suddenly.  
NOTE Confidence: 0.8383515

00:53:28.890 --> 00:53:31.662 I'm not aware of any studies that

NOTE Confidence: 0.8383515

00:53:31.662 --> 00:53:33.894 particularly look at the circuitry

NOTE Confidence: 0.8383515

00:53:33.894 --> 00:53:36.314 that we're identifying that are

NOTE Confidence: 0.8383515

00:53:36.314 --> 00:53:38.781 related to emotional regulation in

NOTE Confidence: 0.8383515

00:53:38.781 --> 00:53:41.126 self control is resilient coping

NOTE Confidence: 0.8383515

00:53:41.126 --> 00:53:45.908 circuitry that is relevant in sort of.

NOTE Confidence: 0.8383515

00:53:45.910 --> 00:53:48.787 Give having people gain better self control.

NOTE Confidence: 0.8383515

00:53:48.790 --> 00:53:51.184 I would expect though we control

NOTE Confidence: 0.8383515

00:53:51.184 --> 00:53:54.149 for age in all of our studies.

NOTE Confidence: 0.8383515

00:53:54.150 --> 00:53:56.210 We are interested in looking

NOTE Confidence: 0.8383515

00:53:56.210 --> 00:53:57.858 at the age effects,

NOTE Confidence: 0.8383515

00:53:57.860 --> 00:54:00.205 but we haven't done that as yet

NOTE Confidence: 0.8383515

00:54:00.205 --> 00:54:03.737 in in a direct way in terms of

NOTE Confidence: 0.8383515

00:54:03.737 --> 00:54:05.685 impact on treatment outcome,

NOTE Confidence: 0.8383515

00:54:05.690 --> 00:54:08.203 I know that Ed Sullivan and Alpha

NOTE Confidence: 0.8383515

00:54:08.203 --> 00:54:10.746 bomb and others have been looking

NOTE Confidence: 0.8383515

00:54:10.746 --> 00:54:13.518 at age related declines in cognitive  
NOTE Confidence: 0.8383515

00:54:13.518 --> 00:54:16.038 function and its impact in recovery.  
NOTE Confidence: 0.8383515

00:54:16.040 --> 00:54:18.416 But not so much in this early phase.  
NOTE Confidence: 0.90362144

00:54:21.420 --> 00:54:22.795 John, you may be aware actually  
NOTE Confidence: 0.90362144

00:54:22.795 --> 00:54:24.379 have some of that work as well.  
NOTE Confidence: 0.90362144

00:54:24.380 --> 00:54:26.384 I'm not sure if you have  
NOTE Confidence: 0.90362144

00:54:26.384 --> 00:54:28.250 anything to add there. No,  
NOTE Confidence: 0.87369573

00:54:28.250 --> 00:54:32.194 but just the just the general comment that  
NOTE Confidence: 0.87369573

00:54:32.194 --> 00:54:36.219 that that as executive cognitive control.  
NOTE Confidence: 0.87369573

00:54:36.220 --> 00:54:38.831 Begins to decline in an advancing age  
NOTE Confidence: 0.87369573

00:54:38.831 --> 00:54:42.149 that you begin to see emergence of a  
NOTE Confidence: 0.87369573

00:54:42.149 --> 00:54:44.269 variety of impulsive behaviors again.  
NOTE Confidence: 0.87369573

00:54:44.270 --> 00:54:46.426 Anne, and there's actually.  
NOTE Confidence: 0.87369573

00:54:46.426 --> 00:54:50.250 Surge or increased risk for substance abuse.  
NOTE Confidence: 0.87369573

00:54:50.250 --> 00:54:53.372 Again in later life that that people  
NOTE Confidence: 0.87369573

00:54:53.372 --> 00:54:55.644 haven't really paid that much

NOTE Confidence: 0.87369573

00:54:55.644 --> 00:54:58.619 attention to that might be related to.

NOTE Confidence: 0.87369573

00:54:58.620 --> 00:55:01.980 What you've described in younger folks.

NOTE Confidence: 0.9238413

00:55:04.850 --> 00:55:05.270 Yeah.

NOTE Confidence: 0.9302989

00:55:17.570 --> 00:55:19.310 Last chance for questions.

NOTE Confidence: 0.87649214

00:55:24.910 --> 00:55:26.992 Alright, well Regina was a fantastic

NOTE Confidence: 0.87649214

00:55:26.992 --> 00:55:29.377 talk in an awesome amount of work

NOTE Confidence: 0.87649214

00:55:29.377 --> 00:55:31.540 and thought by by yourself and the

NOTE Confidence: 0.87649214

00:55:31.611 --> 00:55:33.566 people that you've brought together

NOTE Confidence: 0.87649214

00:55:33.566 --> 00:55:35.884 to work on these important questions.

NOTE Confidence: 0.87649214

00:55:35.884 --> 00:55:38.716 So thank you so much for sharing this.

NOTE Confidence: 0.87649214

00:55:38.720 --> 00:55:40.838 A wonderful lecture with us today.

NOTE Confidence: 0.87649214

00:55:40.840 --> 00:55:41.550 Much appreciated.

NOTE Confidence: 0.9210233

00:55:42.220 --> 00:55:44.062 Thank you, thanks for having me.