

WEBVTT

NOTE duration:"00:59:52.0320000"

NOTE language:en-us

NOTE Confidence: 0.8143199

00:00:00.000 --> 00:00:01.650 Thank you and welcome everyone before

NOTE Confidence: 0.8143199

00:00:01.650 --> 00:00:03.160 we begin this morning's grounds,

NOTE Confidence: 0.8143199

00:00:03.160 --> 00:00:05.435 I want to take a moment and

NOTE Confidence: 0.8143199

00:00:05.435 --> 00:00:07.208 acknowledge the ongoing events that

NOTE Confidence: 0.8143199

00:00:07.208 --> 00:00:09.404 are taking place in Washington DC.

NOTE Confidence: 0.8143199

00:00:09.410 --> 00:00:11.162 Last week, a group of insurrectionist

NOTE Confidence: 0.8143199

00:00:11.162 --> 00:00:13.175 marched on our nation's capital attempted

NOTE Confidence: 0.8143199

00:00:13.175 --> 00:00:15.160 to undermine our constitutional process,

NOTE Confidence: 0.8143199

00:00:15.160 --> 00:00:16.171 destroying federal property

NOTE Confidence: 0.8143199

00:00:16.171 --> 00:00:17.856 and murdered a police officer.

NOTE Confidence: 0.8143199

00:00:17.860 --> 00:00:20.128 Some of these individuals did so openly

NOTE Confidence: 0.8143199

00:00:20.128 --> 00:00:22.837 under the banner of a white nationalist

NOTE Confidence: 0.8143199

00:00:22.837 --> 00:00:24.513 and white supremacist organization.

NOTE Confidence: 0.8143199

00:00:24.520 --> 00:00:25.860 The images that it's insurgent

NOTE Confidence: 0.8143199

00:00:25.860 --> 00:00:27.200 mob are indelibly seared into

NOTE Confidence: 0.8143199

00:00:27.251 --> 00:00:28.550 our collective consciousness,

NOTE Confidence: 0.8143199

00:00:28.550 --> 00:00:29.762 including the Confederate flag

NOTE Confidence: 0.8143199

00:00:29.762 --> 00:00:31.277 waving within our capital in

NOTE Confidence: 0.8143199

00:00:31.277 --> 00:00:32.888 the details that are emerging,

NOTE Confidence: 0.8143199

00:00:32.890 --> 00:00:35.165 such as the removal of panic buttons

NOTE Confidence: 0.8143199

00:00:35.165 --> 00:00:36.140 from Congresswoman Presley's

NOTE Confidence: 0.8143199

00:00:36.190 --> 00:00:37.540 office prior to the attack.

NOTE Confidence: 0.8143199

00:00:37.540 --> 00:00:41.145 Patient even darker picture of what occurred.

NOTE Confidence: 0.8143199

00:00:41.150 --> 00:00:42.702 Well, all of us hope for a speedy

NOTE Confidence: 0.8143199

00:00:42.702 --> 00:00:44.060 and safe transition of power.

NOTE Confidence: 0.8143199

00:00:44.060 --> 00:00:45.254 I want to acknowledge that many

NOTE Confidence: 0.8143199

00:00:45.254 --> 00:00:46.828 of us may be traumatized and just

NOTE Confidence: 0.8143199

00:00:46.828 --> 00:00:48.536 say if you're in need of support,

NOTE Confidence: 0.8143199

00:00:48.540 --> 00:00:50.148 please reach out to Cindy Crew Stoeher to

NOTE Confidence: 0.8143199

00:00:50.148 --> 00:00:51.680 other members of our Department leadership.

NOTE Confidence: 0.430435

00:00:56.420 --> 00:00:58.680 I think we'll laugh, pause.

NOTE Confidence: 0.8276581

00:01:04.430 --> 00:01:06.678 And then welcome again if we can try

NOTE Confidence: 0.8276581

00:01:06.678 --> 00:01:09.106 to put this all aside and be present

NOTE Confidence: 0.8276581

00:01:09.106 --> 00:01:11.749 for a little bit in a different space,

NOTE Confidence: 0.8276581

00:01:11.750 --> 00:01:13.580 acknowledging that that may be hard.

NOTE Confidence: 0.8292125

00:01:15.770 --> 00:01:17.366 It also gives me great pleasure

NOTE Confidence: 0.8292125

00:01:17.366 --> 00:01:19.623 to be able to introduce a friend

NOTE Confidence: 0.8292125

00:01:19.623 --> 00:01:20.904 this morning, Janine Austin.

NOTE Confidence: 0.8292125

00:01:20.904 --> 00:01:22.476 Janine is the executive director of

NOTE Confidence: 0.8292125

00:01:22.476 --> 00:01:24.375 the BC Mental Health and Substance

NOTE Confidence: 0.8292125

00:01:24.375 --> 00:01:26.030 Use Services Research Institute to

NOTE Confidence: 0.8292125

00:01:26.030 --> 00:01:27.681 professor in psychiatry medical genetics

NOTE Confidence: 0.8292125

00:01:27.681 --> 00:01:29.583 at the University of British Columbia,

NOTE Confidence: 0.8292125

00:01:29.590 --> 00:01:31.648 where she holds the Canada Research Chair

NOTE Confidence: 0.8292125

00:01:31.648 --> 00:01:32.960 in Translational Psychiatric Genomics,

NOTE Confidence: 0.8292125

00:01:32.960 --> 00:01:34.706 who research involves studying the impact

NOTE Confidence: 0.8292125

00:01:34.706 --> 00:01:36.564 of genetic counseling for people with

NOTE Confidence: 0.8292125

00:01:36.564 --> 00:01:38.179 psychiatric disorders in their families.

NOTE Confidence: 0.8292125

00:01:38.180 --> 00:01:40.406 She founded the world's first specialist

NOTE Confidence: 0.8292125

00:01:40.406 --> 00:01:41.519 psychiatric genetic counseling

NOTE Confidence: 0.8292125

00:01:41.519 --> 00:01:43.272 service that is when an award for

NOTE Confidence: 0.8292125

00:01:43.272 --> 00:01:44.630 its impact on patient outcomes,

NOTE Confidence: 0.8292125

00:01:44.630 --> 00:01:46.466 in addition to peer reviewed publications,

NOTE Confidence: 0.8292125

00:01:46.470 --> 00:01:47.598 she's written a book.

NOTE Confidence: 0.8292125

00:01:47.598 --> 00:01:49.008 One awards for teaching leadership

NOTE Confidence: 0.8292125

00:01:49.008 --> 00:01:49.770 and research.

NOTE Confidence: 0.8292125

00:01:49.770 --> 00:01:51.874 She's a member of the College of the

NOTE Confidence: 0.8292125

00:01:51.874 --> 00:01:54.003 Royal Society of Canada and a Fellow of

NOTE Confidence: 0.8292125

00:01:54.003 --> 00:01:55.930 the Canadian Academy of Health Sciences.

NOTE Confidence: 0.8292125

00:01:55.930 --> 00:01:57.424 Through my work with her on

NOTE Confidence: 0.8292125

00:01:57.424 --> 00:01:59.010 the ISP G Education Committee,  
NOTE Confidence: 0.8292125

00:01:59.010 --> 00:02:00.844 I can also attest that she is  
NOTE Confidence: 0.8292125

00:02:00.844 --> 00:02:01.997 an extraordinary educator and  
NOTE Confidence: 0.8292125

00:02:01.997 --> 00:02:02.927 a wonderful colleague.  
NOTE Confidence: 0.8292125

00:02:02.930 --> 00:02:04.890 Please join me in welcoming Janine Austin.  
NOTE Confidence: 0.85719746

00:02:06.630 --> 00:02:08.807 Thanks so much David. Yeah and yeah,  
NOTE Confidence: 0.85719746

00:02:08.810 --> 00:02:10.646 so I'm based in Vancouver, Canada.  
NOTE Confidence: 0.85719746

00:02:10.646 --> 00:02:12.854 As you just heard and so I've been  
NOTE Confidence: 0.85719746

00:02:12.854 --> 00:02:15.139 watching events South of the border here  
NOTE Confidence: 0.85719746

00:02:15.139 --> 00:02:16.930 with great consternation and concern.  
NOTE Confidence: 0.85719746

00:02:16.930 --> 00:02:19.530 So thank you very much for that opening  
NOTE Confidence: 0.85719746

00:02:19.530 --> 00:02:22.195 David and I will do my best over the  
NOTE Confidence: 0.85719746

00:02:22.195 --> 00:02:24.694 next little bit of time that we get  
NOTE Confidence: 0.85719746

00:02:24.694 --> 00:02:27.526 to spend together to provide a bit of.  
NOTE Confidence: 0.85719746

00:02:27.526 --> 00:02:28.762 Distraction entertainment even  
NOTE Confidence: 0.85719746

00:02:28.762 --> 00:02:31.119 yeah so thank you for that.

NOTE Confidence: 0.85719746

00:02:31.120 --> 00:02:33.512 Yeah and I think you know in the

NOTE Confidence: 0.85719746

00:02:33.512 --> 00:02:36.446 spirit of that sort of thing I'd like

NOTE Confidence: 0.85719746

00:02:36.446 --> 00:02:38.850 to begin by acknowledging that I'm

NOTE Confidence: 0.85719746

00:02:38.850 --> 00:02:41.304 speaking to you today from Vancouver,

NOTE Confidence: 0.85719746

00:02:41.310 --> 00:02:43.105 which is actually the traditional

NOTE Confidence: 0.85719746

00:02:43.105 --> 00:02:44.182 unceded ancestral territories

NOTE Confidence: 0.85719746

00:02:44.182 --> 00:02:46.040 of the Coast Salish peoples.

NOTE Confidence: 0.85719746

00:02:46.040 --> 00:02:48.218 And that actually includes the Musqueam's,

NOTE Confidence: 0.85719746

00:02:48.220 --> 00:02:50.040 Squamish and slavers, who's nations?

NOTE Confidence: 0.85719746

00:02:50.040 --> 00:02:52.947 So as a as a as a settler who's

NOTE Confidence: 0.85719746

00:02:52.947 --> 00:02:55.577 learning and wanting to sort of

NOTE Confidence: 0.85719746

00:02:55.577 --> 00:02:58.210 uphold and protect and celebrate the.

NOTE Confidence: 0.85719746

00:02:58.210 --> 00:02:59.380 Indigenous peoples of this country.

NOTE Confidence: 0.85719746

00:02:59.380 --> 00:03:01.552 I think it's just important that

NOTE Confidence: 0.85719746

00:03:01.552 --> 00:03:03.556 you know to acknowledge that that

NOTE Confidence: 0.85719746

00:03:03.556 --> 00:03:06.040 this is where I am at at the moment.  
NOTE Confidence: 0.85719746

00:03:06.040 --> 00:03:08.713 OK, so I'm going to see if I can  
NOTE Confidence: 0.85719746

00:03:08.713 --> 00:03:11.328 screen share with you all so that you  
NOTE Confidence: 0.85719746

00:03:11.328 --> 00:03:14.038 can look at my delightful slides.  
NOTE Confidence: 0.85719746

00:03:14.040 --> 00:03:16.168 Hang on one second and so also  
NOTE Confidence: 0.85719746

00:03:16.168 --> 00:03:18.219 just just in in disclosures.  
NOTE Confidence: 0.85719746

00:03:18.220 --> 00:03:20.840 It's just past 7:00 AM here and I am not  
NOTE Confidence: 0.85719746

00:03:20.907 --> 00:03:23.787 necessarily the world's best morning person.  
NOTE Confidence: 0.85719746

00:03:23.790 --> 00:03:26.566 So if I start mixing my words up,  
NOTE Confidence: 0.85719746

00:03:26.570 --> 00:03:30.518 please be please be gentle with me.  
NOTE Confidence: 0.85719746

00:03:30.520 --> 00:03:31.244 OK, here we go,  
NOTE Confidence: 0.85719746

00:03:31.244 --> 00:03:32.880 so hopefully you can see my title slide.  
NOTE Confidence: 0.85719746

00:03:32.880 --> 00:03:33.165 David,  
NOTE Confidence: 0.85719746

00:03:33.165 --> 00:03:36.080 can you give me a thumbs up if you can.  
NOTE Confidence: 0.85719746

00:03:36.080 --> 00:03:37.244 Perfect thank you.  
NOTE Confidence: 0.85719746

00:03:37.244 --> 00:03:37.632 OK,

NOTE Confidence: 0.85719746

00:03:37.632 --> 00:03:38.408 so um,

NOTE Confidence: 0.85719746

00:03:38.410 --> 00:03:40.538 I would like to talk to you this

NOTE Confidence: 0.85719746

00:03:40.538 --> 00:03:42.202 morning about clinical applications

NOTE Confidence: 0.85719746

00:03:42.202 --> 00:03:44.350 of psychiatric genetics and

NOTE Confidence: 0.85719746

00:03:44.350 --> 00:03:45.961 specifically psychiatric genetic

NOTE Confidence: 0.85719746

00:03:45.961 --> 00:03:47.719 counseling in relation to that.

NOTE Confidence: 0.85719746

00:03:47.720 --> 00:03:50.816 Yeah, so before we get going at all,

NOTE Confidence: 0.85719746

00:03:50.820 --> 00:03:52.760 I have no financial interest

NOTE Confidence: 0.85719746

00:03:52.760 --> 00:03:54.700 in any commercial entity that

NOTE Confidence: 0.85719746

00:03:54.767 --> 00:03:56.637 gets mentioned or not today.

NOTE Confidence: 0.85719746

00:03:56.640 --> 00:03:58.570 Yeah so.

NOTE Confidence: 0.85719746

00:03:58.570 --> 00:04:00.626 And what I thought I'd like to talk

NOTE Confidence: 0.85719746

00:04:00.626 --> 00:04:02.462 with you about today is basically

NOTE Confidence: 0.85719746

00:04:02.462 --> 00:04:04.757 just to ensure that we're all starting

NOTE Confidence: 0.85719746

00:04:04.757 --> 00:04:06.791 from the same place together by

NOTE Confidence: 0.85719746



00:04:06.791 --> 00:04:08.734 reviewing what we currently know about  
NOTE Confidence: 0.85719746

00:04:08.734 --> 00:04:09.966 genetics with psychiatric disorders.  
NOTE Confidence: 0.85719746

00:04:09.970 --> 00:04:12.346 I'm going to keep it super high level  
NOTE Confidence: 0.85719746

00:04:12.346 --> 00:04:14.493 and super Brief because I want to  
NOTE Confidence: 0.85719746

00:04:14.493 --> 00:04:16.994 retain most of the time that we have  
NOTE Confidence: 0.85719746

00:04:16.994 --> 00:04:18.890 to talk about the more substantive  
NOTE Confidence: 0.85719746

00:04:18.890 --> 00:04:20.790 or meaty important pieces which would  
NOTE Confidence: 0.85719746

00:04:20.790 --> 00:04:22.711 be discussing how important it is  
NOTE Confidence: 0.85719746

00:04:22.711 --> 00:04:24.457 for families to understand what the  
NOTE Confidence: 0.85719746

00:04:24.457 --> 00:04:25.998 causes of psychiatric disorders and  
NOTE Confidence: 0.85719746

00:04:25.998 --> 00:04:27.834 to discuss the outcomes of genetic  
NOTE Confidence: 0.85719746

00:04:27.834 --> 00:04:29.358 counseling for psychiatric disorders.  
NOTE Confidence: 0.85719746

00:04:29.358 --> 00:04:32.082 And to consider what the implications  
NOTE Confidence: 0.85719746

00:04:32.082 --> 00:04:35.265 of that might mean for applying genetic  
NOTE Confidence: 0.85719746

00:04:35.265 --> 00:04:37.470 testing in this context basically.  
NOTE Confidence: 0.85719746

00:04:37.470 --> 00:04:37.878 Yeah,

NOTE Confidence: 0.85719746

00:04:37.878 --> 00:04:40.326 so let's start at the beginning

NOTE Confidence: 0.85719746

00:04:40.326 --> 00:04:43.229 because that is usually a good place

NOTE Confidence: 0.85719746

00:04:43.229 --> 00:04:46.195 to start with reviewing what we know

NOTE Confidence: 0.85719746

00:04:46.195 --> 00:04:49.099 about the genetics of these conditions.

NOTE Confidence: 0.85719746

00:04:49.100 --> 00:04:50.696 And this is really for my

NOTE Confidence: 0.85719746

00:04:50.696 --> 00:04:52.060 amusement more than anything else.

NOTE Confidence: 0.8448503

00:04:54.380 --> 00:04:56.886 So it's a cartoon of, you know,

NOTE Confidence: 0.8448503

00:04:56.886 --> 00:04:58.776 scientist standing around a jigsaw

NOTE Confidence: 0.8448503

00:04:58.776 --> 00:05:00.927 puzzle with three billion pieces saying

NOTE Confidence: 0.8448503

00:05:00.927 --> 00:05:03.552 I think I found a corner piece and

NOTE Confidence: 0.8448503

00:05:03.552 --> 00:05:05.939 for the longest time this really did

NOTE Confidence: 0.8448503

00:05:05.939 --> 00:05:07.533 very accurately represent where we

NOTE Confidence: 0.8448503

00:05:07.533 --> 00:05:09.640 were at in terms of understanding the

NOTE Confidence: 0.8448503

00:05:09.699 --> 00:05:11.527 genetics of psychiatric disorders.

NOTE Confidence: 0.8448503

00:05:11.530 --> 00:05:13.714 I do like to think that we've come

NOTE Confidence: 0.8448503

00:05:13.714 --> 00:05:16.330 a little way since since since this  
NOTE Confidence: 0.8448503

00:05:16.330 --> 00:05:18.330 really didn't capture in encapsulate  
NOTE Confidence: 0.8448503

00:05:18.403 --> 00:05:20.629 everything between you and so this,  
NOTE Confidence: 0.8448503

00:05:20.630 --> 00:05:23.879 this is, I think one of the you know.  
NOTE Confidence: 0.8448503

00:05:23.880 --> 00:05:25.875 Celebrated images in the psychiatric  
NOTE Confidence: 0.8448503

00:05:25.875 --> 00:05:27.870 genetics community and so for  
NOTE Confidence: 0.8448503

00:05:27.936 --> 00:05:29.448 those of you in the know.  
NOTE Confidence: 0.8448503

00:05:29.450 --> 00:05:31.190 This is a Manhattan plot.  
NOTE Confidence: 0.8448503

00:05:31.190 --> 00:05:32.930 For those of you don't  
NOTE Confidence: 0.8448503

00:05:32.930 --> 00:05:34.670 really know what it is.  
NOTE Confidence: 0.8448503

00:05:34.670 --> 00:05:36.405 Basically it's a way of  
NOTE Confidence: 0.8448503

00:05:36.405 --> 00:05:37.446 representing Association studies.  
NOTE Confidence: 0.8448503

00:05:37.450 --> 00:05:39.190 So along the X axis,  
NOTE Confidence: 0.8448503

00:05:39.190 --> 00:05:40.582 you're looking at chromosome  
NOTE Confidence: 0.8448503

00:05:40.582 --> 00:05:42.670 number and along the Y axis.  
NOTE Confidence: 0.8448503

00:05:42.670 --> 00:05:44.884 It's like the degree of statistical

NOTE Confidence: 0.8448503

00:05:44.884 --> 00:05:47.049 significance of Association of a variant

NOTE Confidence: 0.8448503

00:05:47.049 --> 00:05:48.933 with the the condition of interest.

NOTE Confidence: 0.8448503

00:05:48.940 --> 00:05:51.716 So the higher the peak that you see,

NOTE Confidence: 0.8448503

00:05:51.720 --> 00:05:54.674 the more significant the P value essentially.

NOTE Confidence: 0.8448503

00:05:54.680 --> 00:05:56.465 And anything that surpasses that

NOTE Confidence: 0.8448503

00:05:56.465 --> 00:05:58.814 red horizontal line that you can see

NOTE Confidence: 0.8448503

00:05:58.814 --> 00:06:00.822 there at the bottom is a value that

NOTE Confidence: 0.8448503

00:06:00.890 --> 00:06:02.938 surpasses genome wide significance.

NOTE Confidence: 0.8448503

00:06:02.940 --> 00:06:05.334 So it is called a Manhattan plot,

NOTE Confidence: 0.8448503

00:06:05.340 --> 00:06:06.708 because theoretically, these are.

NOTE Confidence: 0.8448503

00:06:06.708 --> 00:06:08.418 These pictures are supposed to

NOTE Confidence: 0.8448503

00:06:08.418 --> 00:06:10.158 look like the Manhattan skyline.

NOTE Confidence: 0.8448503

00:06:10.160 --> 00:06:12.568 You know, lots of very tall buildings,

NOTE Confidence: 0.8448503

00:06:12.570 --> 00:06:13.946 lots of Rachel peaks.

NOTE Confidence: 0.8448503

00:06:13.946 --> 00:06:14.978 So the sad,

NOTE Confidence: 0.8448503

00:06:14.980 --> 00:06:16.790 sad little joking psychiatric genetics  
NOTE Confidence: 0.8448503

00:06:16.790 --> 00:06:18.966 community for for many years was  
NOTE Confidence: 0.8448503

00:06:18.966 --> 00:06:20.820 that we didn't have Manhattan plots.  
NOTE Confidence: 0.8448503

00:06:20.820 --> 00:06:22.540 We had Omaha plots because  
NOTE Confidence: 0.8448503

00:06:22.540 --> 00:06:23.916 there weren't any peaks.  
NOTE Confidence: 0.8448503

00:06:23.920 --> 00:06:25.015 It was all.  
NOTE Confidence: 0.8448503

00:06:25.015 --> 00:06:26.110 Latin music anyway,  
NOTE Confidence: 0.8448503

00:06:26.110 --> 00:06:28.539 so this image is so celebrated because  
NOTE Confidence: 0.8448503

00:06:28.539 --> 00:06:30.589 it was basically the first one  
NOTE Confidence: 0.8448503

00:06:30.589 --> 00:06:32.794 where they were really any number of  
NOTE Confidence: 0.8448503

00:06:32.862 --> 00:06:35.611 substantive peaks above that red line, right?  
NOTE Confidence: 0.8448503

00:06:35.611 --> 00:06:36.313 So nowadays,  
NOTE Confidence: 0.8448503

00:06:36.313 --> 00:06:39.830 so you'll see from the date at the top there.  
NOTE Confidence: 0.8448503

00:06:39.830 --> 00:06:41.238 This is from 2014,  
NOTE Confidence: 0.8448503

00:06:41.238 --> 00:06:42.294 and so nowadays,  
NOTE Confidence: 0.8448503

00:06:42.300 --> 00:06:44.322 as my PhD supervisor maker Donovan

NOTE Confidence: 0.8448503

00:06:44.322 --> 00:06:46.519 likes to say it's just taller,

NOTE Confidence: 0.8448503

00:06:46.520 --> 00:06:47.312 greener and denser.

NOTE Confidence: 0.8448503

00:06:47.312 --> 00:06:49.591 So it's just a lot more of those

NOTE Confidence: 0.8448503

00:06:49.591 --> 00:06:51.083 variants that are surpassing

NOTE Confidence: 0.8448503

00:06:51.083 --> 00:06:52.948 that threshold for genome wide

NOTE Confidence: 0.8448503

00:06:53.007 --> 00:06:54.830 significance nowadays, but yeah.

NOTE Confidence: 0.8448503

00:06:54.830 --> 00:06:57.440 And I know your eyes are all going to

NOTE Confidence: 0.8448503

00:06:57.440 --> 00:07:00.185 that really tall one in the middle and going.

NOTE Confidence: 0.8448503

00:07:00.190 --> 00:07:01.042 What is that?

NOTE Confidence: 0.8448503

00:07:01.042 --> 00:07:02.178 I know they are.

NOTE Confidence: 0.8448503

00:07:02.180 --> 00:07:03.304 That's that's the major

NOTE Confidence: 0.8448503

00:07:03.304 --> 00:07:03.866 histocompatibility complex.

NOTE Confidence: 0.8448503

00:07:03.870 --> 00:07:05.844 And so just so that you know,

NOTE Confidence: 0.8448503

00:07:05.850 --> 00:07:07.915 the tallness of the peak does not

NOTE Confidence: 0.8448503

00:07:07.915 --> 00:07:09.814 mean it plays a big, big role.

NOTE Confidence: 0.8448503

00:07:09.814 --> 00:07:11.506 It just means it's more significant.  
NOTE Confidence: 0.8448503

00:07:11.510 --> 00:07:14.040 So that's all that means.  
NOTE Confidence: 0.8448503

00:07:14.040 --> 00:07:14.670 So anyway,  
NOTE Confidence: 0.8448503

00:07:14.670 --> 00:07:16.560 that's all the single nucleotide stuff,  
NOTE Confidence: 0.8448503

00:07:16.560 --> 00:07:18.324 so they're really really tiny tiny  
NOTE Confidence: 0.8448503

00:07:18.324 --> 00:07:20.231 variants that can contribute to the  
NOTE Confidence: 0.8448503

00:07:20.231 --> 00:07:21.599 development of psychiatric disorders.  
NOTE Confidence: 0.8448503

00:07:21.600 --> 00:07:24.052 But there's also more than that, of course.  
NOTE Confidence: 0.8448503

00:07:24.052 --> 00:07:26.300 So what you're looking at in this table  
NOTE Confidence: 0.8448503

00:07:26.362 --> 00:07:28.217 is different types of variations,  
NOTE Confidence: 0.8448503

00:07:28.220 --> 00:07:29.560 genetic variations, that is,  
NOTE Confidence: 0.8448503

00:07:29.560 --> 00:07:31.235 that can contribute to psychiatric  
NOTE Confidence: 0.8448503

00:07:31.235 --> 00:07:32.000 illness in blue.  
NOTE Confidence: 0.8448503

00:07:32.000 --> 00:07:33.735 We're looking at those single  
NOTE Confidence: 0.8448503

00:07:33.735 --> 00:07:35.123 nucleotide polymorphism is basically  
NOTE Confidence: 0.8448503

00:07:35.123 --> 00:07:36.907 the things that were just showing

NOTE Confidence: 0.8448503

00:07:36.907 --> 00:07:38.292 up on that Manhattan plot.

NOTE Confidence: 0.8448503

00:07:38.300 --> 00:07:40.120 So each one of those peaks would

NOTE Confidence: 0.8448503

00:07:40.120 --> 00:07:42.390 be one of these rows essentially,

NOTE Confidence: 0.8448503

00:07:42.390 --> 00:07:44.990 and what you can see is that those

NOTE Confidence: 0.8448503

00:07:44.990 --> 00:07:45.640 variations are.

NOTE Confidence: 0.83247226

00:07:45.640 --> 00:07:47.350 Really common in the population,

NOTE Confidence: 0.83247226

00:07:47.350 --> 00:07:49.345 but they only make a tiny difference

NOTE Confidence: 0.83247226

00:07:49.345 --> 00:07:51.477 to whether to your vulnerability for

NOTE Confidence: 0.83247226

00:07:51.477 --> 00:07:53.507 developing one of these disorders,

NOTE Confidence: 0.83247226

00:07:53.510 --> 00:07:55.295 but at the top you've got a

NOTE Confidence: 0.83247226

00:07:55.295 --> 00:07:57.496 few lines in purple and these

NOTE Confidence: 0.83247226

00:07:57.496 --> 00:07:59.320 represent copy number variations,

NOTE Confidence: 0.83247226

00:07:59.320 --> 00:08:01.030 so these are bigger duplications

NOTE Confidence: 0.83247226

00:08:01.030 --> 00:08:02.740 or deletions of genetic material.

NOTE Confidence: 0.83247226

00:08:02.740 --> 00:08:04.840 The most famous most well known of

NOTE Confidence: 0.83247226



00:08:04.840 --> 00:08:07.188 which I think in psychiatric spaces.  
NOTE Confidence: 0.83247226

00:08:07.190 --> 00:08:08.558 Of course, 22 Q.  
NOTE Confidence: 0.83247226

00:08:08.558 --> 00:08:09.512 11, deletion an.  
NOTE Confidence: 0.83247226

00:08:09.512 --> 00:08:11.654 So what you can see with these  
NOTE Confidence: 0.83247226

00:08:11.654 --> 00:08:13.720 is that they are considerably  
NOTE Confidence: 0.83247226

00:08:13.720 --> 00:08:15.830 less common in the population.  
NOTE Confidence: 0.83247226

00:08:15.830 --> 00:08:17.580 But when you have one,  
NOTE Confidence: 0.83247226

00:08:17.580 --> 00:08:19.668 it makes a much bigger difference.  
NOTE Confidence: 0.83247226

00:08:19.670 --> 00:08:21.325 Much bigger contribution to your  
NOTE Confidence: 0.83247226

00:08:21.325 --> 00:08:22.318 vulnerability for developing  
NOTE Confidence: 0.83247226

00:08:22.318 --> 00:08:23.860 one of these conditions,  
NOTE Confidence: 0.83247226

00:08:23.860 --> 00:08:26.093 couple of things to draw your attention  
NOTE Confidence: 0.83247226

00:08:26.093 --> 00:08:29.033 to is that although not all of the  
NOTE Confidence: 0.83247226

00:08:29.033 --> 00:08:30.948 lines have multiple disorders listed  
NOTE Confidence: 0.83247226

00:08:31.014 --> 00:08:32.928 in them in that second column,  
NOTE Confidence: 0.83247226

00:08:32.930 --> 00:08:35.657 I think it's very fair to say that they

NOTE Confidence: 0.83247226

00:08:35.657 --> 00:08:38.520 they shouldn't need to update this slide.

NOTE Confidence: 0.83247226

00:08:38.520 --> 00:08:40.260 Essentially that they should have,

NOTE Confidence: 0.83247226

00:08:40.260 --> 00:08:42.228 so the variations don't seem to

NOTE Confidence: 0.83247226

00:08:42.228 --> 00:08:44.448 to contribute to risk for only

NOTE Confidence: 0.83247226

00:08:44.448 --> 00:08:46.140 one specific discrete condition.

NOTE Confidence: 0.83247226

00:08:46.140 --> 00:08:46.583 Instead,

NOTE Confidence: 0.83247226

00:08:46.583 --> 00:08:48.798 it seems that genetic variation

NOTE Confidence: 0.83247226

00:08:48.798 --> 00:08:50.570 contributes to one's vulnerability

NOTE Confidence: 0.83247226

00:08:50.633 --> 00:08:52.878 for developing mental illness broadly.

NOTE Confidence: 0.83247226

00:08:52.880 --> 00:08:56.204 And perhaps it depends what particular

NOTE Confidence: 0.83247226

00:08:56.204 --> 00:08:59.005 combination of things you've got

NOTE Confidence: 0.83247226

00:08:59.005 --> 00:09:01.485 going on that determines what

NOTE Confidence: 0.83247226

00:09:01.485 --> 00:09:04.220 actual diagnosis one might receive.

NOTE Confidence: 0.83247226

00:09:04.220 --> 00:09:06.166 So that was a very brief whistle.

NOTE Confidence: 0.83247226

00:09:06.170 --> 00:09:07.885 Stop tour about what it is we

NOTE Confidence: 0.83247226

00:09:07.885 --> 00:09:09.005 currently understand about the  
NOTE Confidence: 0.83247226

00:09:09.005 --> 00:09:10.337 genetics of psychiatric disorders.  
NOTE Confidence: 0.83247226

00:09:10.340 --> 00:09:11.730 I want to contextualize that  
NOTE Confidence: 0.83247226

00:09:11.730 --> 00:09:13.120 for you because I don't.  
NOTE Confidence: 0.83247226

00:09:13.120 --> 00:09:14.776 I know you will know this,  
NOTE Confidence: 0.83247226

00:09:14.780 --> 00:09:16.726 but it's just good to say explicitly.  
NOTE Confidence: 0.83247226

00:09:16.730 --> 00:09:17.005 Again,  
NOTE Confidence: 0.83247226

00:09:17.005 --> 00:09:18.380 these are not conditions that  
NOTE Confidence: 0.83247226

00:09:18.380 --> 00:09:19.790 caused by genetic variation alone.  
NOTE Confidence: 0.83247226

00:09:19.790 --> 00:09:21.737 To the best of our knowledge, right?  
NOTE Confidence: 0.83247226

00:09:21.737 --> 00:09:23.958 So we know that from twin studies, right?  
NOTE Confidence: 0.83247226

00:09:23.958 --> 00:09:25.626 So if a condition was entirely  
NOTE Confidence: 0.83247226

00:09:25.626 --> 00:09:26.460 caused by genetics,  
NOTE Confidence: 0.83247226

00:09:26.460 --> 00:09:27.765 we would know that because  
NOTE Confidence: 0.83247226

00:09:27.765 --> 00:09:29.070 we'd see the identical twin  
NOTE Confidence: 0.83247226

00:09:29.127 --> 00:09:30.627 concordance rate would be 100%.

NOTE Confidence: 0.83247226

00:09:30.630 --> 00:09:31.467 And of course,

NOTE Confidence: 0.83247226

00:09:31.467 --> 00:09:32.862 we don't see that for

NOTE Confidence: 0.83247226

00:09:32.862 --> 00:09:34.590 any of these conditions.

NOTE Confidence: 0.83247226

00:09:34.590 --> 00:09:34.846 However,

NOTE Confidence: 0.83247226

00:09:34.846 --> 00:09:36.894 what we do see is that the core

NOTE Confidence: 0.83247226

00:09:36.894 --> 00:09:38.246 concordance rates for psychiatric

NOTE Confidence: 0.83247226

00:09:38.246 --> 00:09:39.991 disorders are higher amongst identical

NOTE Confidence: 0.83247226

00:09:39.991 --> 00:09:42.269 Twins than they are amongst non identical,

NOTE Confidence: 0.83247226

00:09:42.270 --> 00:09:43.805 which is what the classic

NOTE Confidence: 0.83247226

00:09:43.805 --> 00:09:45.340 hallmarks that we look for.

NOTE Confidence: 0.83247226

00:09:45.340 --> 00:09:47.391 If we need to to determine whether

NOTE Confidence: 0.83247226

00:09:47.391 --> 00:09:49.329 or not genetics is a contributor.

NOTE Confidence: 0.83247226

00:09:49.330 --> 00:09:50.860 So genetics is a contributor,

NOTE Confidence: 0.83247226

00:09:50.860 --> 00:09:53.009 yes, but it's not the only thing,

NOTE Confidence: 0.83247226

00:09:53.010 --> 00:09:55.596 so I think that's just really

NOTE Confidence: 0.83247226

00:09:55.596 --> 00:09:57.320 important contextual framing here.  
NOTE Confidence: 0.83247226

00:09:57.320 --> 00:09:59.066 So where does that leave us in terms of,  
NOTE Confidence: 0.83247226

00:09:59.070 --> 00:10:00.110 you know if we're thinking?  
NOTE Confidence: 0.83247226

00:10:00.110 --> 00:10:01.378 About genetic applications and  
NOTE Confidence: 0.83247226

00:10:01.378 --> 00:10:02.329 for psychiatric disorders,  
NOTE Confidence: 0.83247226

00:10:02.330 --> 00:10:04.546 the first thing that we tend to think  
NOTE Confidence: 0.83247226

00:10:04.546 --> 00:10:06.419 about is genetic testing, right?  
NOTE Confidence: 0.83247226

00:10:06.419 --> 00:10:06.997 So yeah,  
NOTE Confidence: 0.83247226

00:10:06.997 --> 00:10:08.442 there's no genetic test with  
NOTE Confidence: 0.83247226

00:10:08.442 --> 00:10:09.936 which to establish, confirm,  
NOTE Confidence: 0.83247226

00:10:09.936 --> 00:10:11.516 or refine a psychiatric diagnosis.  
NOTE Confidence: 0.83247226

00:10:11.520 --> 00:10:13.110 That's just where we're at.  
NOTE Confidence: 0.83247226

00:10:13.110 --> 00:10:13.742 And honestly,  
NOTE Confidence: 0.83247226

00:10:13.742 --> 00:10:15.638 there's not really gonna be becausw.  
NOTE Confidence: 0.83247226

00:10:15.640 --> 00:10:17.225 These aren't conditions that are  
NOTE Confidence: 0.83247226

00:10:17.225 --> 00:10:18.493 caused entirely by genetics,

NOTE Confidence: 0.83247226

00:10:18.500 --> 00:10:19.322 so you know,

NOTE Confidence: 0.83247226

00:10:19.322 --> 00:10:20.966 we've got really important role for

NOTE Confidence: 0.83247226

00:10:20.966 --> 00:10:22.927 our experiences on the environment.

NOTE Confidence: 0.83247226

00:10:22.930 --> 00:10:26.786 If you'd prefer to put it that way.

NOTE Confidence: 0.83247226

00:10:26.790 --> 00:10:27.651 So, so secondarily,

NOTE Confidence: 0.83247226

00:10:27.651 --> 00:10:29.086 family history is used clinically

NOTE Confidence: 0.83247226

00:10:29.086 --> 00:10:30.753 at the moment for predicting

NOTE Confidence: 0.83247226

00:10:30.753 --> 00:10:32.145 risk for psychiatric illness.

NOTE Confidence: 0.83247226

00:10:32.150 --> 00:10:33.095 Polygenic risk scores,

NOTE Confidence: 0.83247226

00:10:33.095 --> 00:10:34.670 which, if we've got time,

NOTE Confidence: 0.8424415

00:10:34.670 --> 00:10:37.190 I'd like to touch on at the end,

NOTE Confidence: 0.8424415

00:10:37.190 --> 00:10:39.710 or matter really hot debate at the moment,

NOTE Confidence: 0.8424415

00:10:39.710 --> 00:10:41.225 but they're actually already available

NOTE Confidence: 0.8424415

00:10:41.225 --> 00:10:43.170 on in a director consumer fashion.

NOTE Confidence: 0.8424415

00:10:43.170 --> 00:10:45.610 In fact, I got an email This morning from a

NOTE Confidence: 0.8424415

00:10:45.669 --> 00:10:48.287 gentleman sending me his polygenic risk score  
NOTE Confidence: 0.8424415

00:10:48.287 --> 00:10:50.820 for bipolar disorder and asking, you know,  
NOTE Confidence: 0.8424415

00:10:50.820 --> 00:10:54.240 if we could talk about it because he wants  
NOTE Confidence: 0.8424415

00:10:54.240 --> 00:10:57.460 to understand more about what that means.  
NOTE Confidence: 0.8424415

00:10:57.460 --> 00:10:59.845 So yeah, this is this is a a clinical  
NOTE Confidence: 0.8424415

00:10:59.845 --> 00:11:02.367 reality at the moment and then copy number  
NOTE Confidence: 0.8424415

00:11:02.367 --> 00:11:04.897 variation which we just briefly talked about.  
NOTE Confidence: 0.8424415

00:11:04.900 --> 00:11:06.056 22 Q for example.  
NOTE Confidence: 0.8424415

00:11:06.056 --> 00:11:08.722 So testing for those kinds of things is of  
NOTE Confidence: 0.8424415

00:11:08.722 --> 00:11:11.156 the most utility in the context of family  
NOTE Confidence: 0.8424415

00:11:11.156 --> 00:11:13.578 members of people known to carry them,  
NOTE Confidence: 0.8424415

00:11:13.580 --> 00:11:15.449 or people who have psychiatric illness and  
NOTE Confidence: 0.8424415

00:11:15.449 --> 00:11:17.299 other problems and multisystem conditions.  
NOTE Confidence: 0.8424415

00:11:17.300 --> 00:11:18.850 But there's a movement in  
NOTE Confidence: 0.8424415

00:11:18.850 --> 00:11:20.400 the literature at the moment.  
NOTE Confidence: 0.8424415

00:11:20.400 --> 00:11:22.339 An argument that people are making that

NOTE Confidence: 0.8424415

00:11:22.339 --> 00:11:24.394 maybe we should be thinking about screening

NOTE Confidence: 0.8424415

00:11:24.394 --> 00:11:26.910 for CN bees and everybody with schizophrenia,

NOTE Confidence: 0.8424415

00:11:26.910 --> 00:11:27.688 let's say.

NOTE Confidence: 0.8424415

00:11:27.688 --> 00:11:30.022 So there are clinical practice guidelines

NOTE Confidence: 0.8424415

00:11:30.022 --> 00:11:32.240 suggesting that that's as you will know,

NOTE Confidence: 0.8424415

00:11:32.240 --> 00:11:34.052 that that that that's first here

NOTE Confidence: 0.8424415

00:11:34.052 --> 00:11:35.899 test in the context of autism,

NOTE Confidence: 0.8424415

00:11:35.900 --> 00:11:37.420 but but what about schizophrenia?

NOTE Confidence: 0.8424415

00:11:37.420 --> 00:11:39.860 Maybe maybe we should be doing it there.

NOTE Confidence: 0.8424415

00:11:39.860 --> 00:11:41.376 Some people are arguing.

NOTE Confidence: 0.8424415

00:11:41.376 --> 00:11:44.290 And then just very briefly to mention,

NOTE Confidence: 0.8424415

00:11:44.290 --> 00:11:46.082 because it is a type of genetic

NOTE Confidence: 0.8424415

00:11:46.082 --> 00:11:47.877 testing that relates to psychiatric

NOTE Confidence: 0.8424415

00:11:47.877 --> 00:11:49.329 disorders pharmacogenetic testing.

NOTE Confidence: 0.8424415

00:11:49.330 --> 00:11:49.668 Obviously,

NOTE Confidence: 0.8424415



00:11:49.668 --> 00:11:50.344 you know,  
NOTE Confidence: 0.8424415

00:11:50.344 --> 00:11:52.710 in the in the psychiatric space this  
NOTE Confidence: 0.8424415

00:11:52.779 --> 00:11:54.843 is an intense interest just because  
NOTE Confidence: 0.8424415

00:11:54.843 --> 00:11:57.058 of the clinical issues that we know.  
NOTE Confidence: 0.8424415

00:11:57.060 --> 00:11:58.740 Trial and errors going through,  
NOTE Confidence: 0.8424415

00:11:58.740 --> 00:12:00.080 you know psychiatric medication  
NOTE Confidence: 0.8424415

00:12:00.080 --> 00:12:01.755 trials can be just very,  
NOTE Confidence: 0.8424415

00:12:01.760 --> 00:12:03.440 very difficult for all involved.  
NOTE Confidence: 0.8424415

00:12:03.440 --> 00:12:05.250 Clinicians and patients like and  
NOTE Confidence: 0.8424415

00:12:05.250 --> 00:12:08.029 so wouldn't it be nice if we could  
NOTE Confidence: 0.8424415

00:12:08.029 --> 00:12:09.829 do a genetic test to predict?  
NOTE Confidence: 0.8424415

00:12:09.830 --> 00:12:11.948 You know what would work best?  
NOTE Confidence: 0.8424415

00:12:11.950 --> 00:12:13.642 Best for somebody with the least  
NOTE Confidence: 0.8424415

00:12:13.642 --> 00:12:14.206 side effects.  
NOTE Confidence: 0.8424415

00:12:14.210 --> 00:12:15.035 And so yeah,  
NOTE Confidence: 0.8424415

00:12:15.035 --> 00:12:16.960 this is a very very active area

NOTE Confidence: 0.8424415

00:12:17.027 --> 00:12:19.029 of work at the moment of course.

NOTE Confidence: 0.8424415

00:12:19.030 --> 00:12:19.570 So yeah,

NOTE Confidence: 0.8424415

00:12:19.570 --> 00:12:21.190 and that's really all I'm going

NOTE Confidence: 0.8424415

00:12:21.190 --> 00:12:22.420 to say about that,

NOTE Confidence: 0.8424415

00:12:22.420 --> 00:12:24.118 but I think it's just important

NOTE Confidence: 0.8424415

00:12:24.118 --> 00:12:25.536 to acknowledge so, given that,

NOTE Confidence: 0.8424415

00:12:25.536 --> 00:12:27.517 given that there isn't any genetic testing,

NOTE Confidence: 0.8424415

00:12:27.520 --> 00:12:28.930 I've just told you what,

NOTE Confidence: 0.8424415

00:12:28.930 --> 00:12:31.477 is there anything that we can do like what?

NOTE Confidence: 0.8424415

00:12:31.480 --> 00:12:34.018 Why am I even talking to you this morning?

NOTE Confidence: 0.8424415

00:12:34.020 --> 00:12:36.284 Like surely we should just hang up now,

NOTE Confidence: 0.8424415

00:12:36.290 --> 00:12:38.264 right? No no, stay with me please.

NOTE Confidence: 0.8424415

00:12:38.270 --> 00:12:39.402 So because genetic counseling

NOTE Confidence: 0.8424415

00:12:39.402 --> 00:12:40.817 is not genetic testing OK,

NOTE Confidence: 0.8424415

00:12:40.820 --> 00:12:43.020 I I know that there's a sort of a popular

NOTE Confidence: 0.8424415

00:12:43.082 --> 00:12:44.747 conception that genetic counseling is  
NOTE Confidence: 0.8424415

00:12:44.747 --> 00:12:46.960 something that we do for pregnant.  
NOTE Confidence: 0.8424415

00:12:46.960 --> 00:12:47.896 In an you know,  
NOTE Confidence: 0.8424415

00:12:47.896 --> 00:12:49.705 or if you're going to get BRCA  
NOTE Confidence: 0.8424415

00:12:49.705 --> 00:12:51.420 testing or something like that.  
NOTE Confidence: 0.8424415

00:12:51.420 --> 00:12:53.065 And of course you know you can  
NOTE Confidence: 0.8424415

00:12:53.065 --> 00:12:54.511 kind of definitely apply genetic  
NOTE Confidence: 0.8424415

00:12:54.511 --> 00:12:55.887 counseling in those contexts,  
NOTE Confidence: 0.8424415

00:12:55.890 --> 00:12:58.114 but that's like the tip of the iceberg.  
NOTE Confidence: 0.8424415

00:12:58.120 --> 00:13:01.624 Really, there's way more to it than that.  
NOTE Confidence: 0.8424415

00:13:01.630 --> 00:13:04.166 So I'm going to tell it like this.  
NOTE Confidence: 0.8424415

00:13:04.170 --> 00:13:06.078 This sounds really trivial and boring,  
NOTE Confidence: 0.8424415

00:13:06.080 --> 00:13:08.084 but hopefully I'm going to illustrate  
NOTE Confidence: 0.8424415

00:13:08.084 --> 00:13:10.218 for you later why it's not OK.  
NOTE Confidence: 0.8424415

00:13:10.220 --> 00:13:11.810 So understanding that psychiatric disorders  
NOTE Confidence: 0.8424415

00:13:11.810 --> 00:13:13.400 are themselves not usually inherited,

NOTE Confidence: 0.8595376

00:13:13.400 --> 00:13:15.120 but what that we can we can inherit

NOTE Confidence: 0.8595376

00:13:15.120 --> 00:13:16.741 is a vulnerability to psychiatric

NOTE Confidence: 0.8595376

00:13:16.741 --> 00:13:19.003 illness that can actually be a

NOTE Confidence: 0.8595376

00:13:19.003 --> 00:13:20.837 profoundly powerful thing for people

NOTE Confidence: 0.8595376

00:13:20.837 --> 00:13:22.587 with these conditions in their

NOTE Confidence: 0.8595376

00:13:22.587 --> 00:13:24.530 families to hear about. And again,

NOTE Confidence: 0.8595376

00:13:24.530 --> 00:13:27.066 I'm going to illustrate that for you later,

NOTE Confidence: 0.8595376

00:13:27.070 --> 00:13:28.795 understanding that its genes and

NOTE Confidence: 0.8595376

00:13:28.795 --> 00:13:30.175 environment that usually work

NOTE Confidence: 0.8595376

00:13:30.175 --> 00:13:31.839 together to produce illness to you.

NOTE Confidence: 0.8595376

00:13:31.840 --> 00:13:33.500 That may sound very trivial.

NOTE Confidence: 0.8595376

00:13:33.500 --> 00:13:35.040 To me it did initially,

NOTE Confidence: 0.8595376

00:13:35.040 --> 00:13:36.780 but my experience of like working

NOTE Confidence: 0.8595376

00:13:36.780 --> 00:13:38.518 with families and helping them to

NOTE Confidence: 0.8595376

00:13:38.518 --> 00:13:40.084 understand that shows me that from

NOTE Confidence: 0.8595376

00:13:40.084 --> 00:13:41.789 the family experience perspective,  
NOTE Confidence: 0.8595376

00:13:41.790 --> 00:13:44.868 this is not trivial at all.  
NOTE Confidence: 0.8595376

00:13:44.870 --> 00:13:47.060 And then of course it's called  
NOTE Confidence: 0.8595376

00:13:47.060 --> 00:13:49.082 genetic counseling and so counseling  
NOTE Confidence: 0.8595376

00:13:49.082 --> 00:13:51.557 around the emotional issues that  
NOTE Confidence: 0.8595376

00:13:51.557 --> 00:13:53.537 typically attach to explanations  
NOTE Confidence: 0.8595376

00:13:53.608 --> 00:13:55.756 for cause of illness is critical.  
NOTE Confidence: 0.8595376

00:13:55.760 --> 00:13:58.700 So we're talking about things like guilt,  
NOTE Confidence: 0.8595376

00:13:58.700 --> 00:14:00.372 blame, shame, fear, stigma,  
NOTE Confidence: 0.8595376

00:14:00.372 --> 00:14:02.462 all of that good stuff.  
NOTE Confidence: 0.8595376

00:14:02.470 --> 00:14:04.978 Well, not good stuff, terrible stuff.  
NOTE Confidence: 0.8595376

00:14:04.980 --> 00:14:07.785 But counseling around those issues  
NOTE Confidence: 0.8595376

00:14:07.785 --> 00:14:10.029 can be profoundly impactful.  
NOTE Confidence: 0.8595376

00:14:10.030 --> 00:14:11.638 So let's talk a little bit  
NOTE Confidence: 0.8595376

00:14:11.638 --> 00:14:12.710 about more that stuff.  
NOTE Confidence: 0.8595376

00:14:12.710 --> 00:14:14.306 Let's talk more about the importance

NOTE Confidence: 0.8595376

00:14:14.306 --> 00:14:15.660 of families of understanding cause,

NOTE Confidence: 0.8595376

00:14:15.660 --> 00:14:17.000 and I'm just going to

NOTE Confidence: 0.8595376

00:14:17.000 --> 00:14:18.340 share some quotes with you,

NOTE Confidence: 0.8595376

00:14:18.340 --> 00:14:18.608 actually,

NOTE Confidence: 0.8595376

00:14:18.608 --> 00:14:20.484 and this is going to be absolutely

NOTE Confidence: 0.8595376

00:14:20.484 --> 00:14:22.382 familiar to all of you that practice

NOTE Confidence: 0.8595376

00:14:22.382 --> 00:14:23.684 clinically or ever have, right?

NOTE Confidence: 0.8595376

00:14:23.684 --> 00:14:24.446 So you know.

NOTE Confidence: 0.8595376

00:14:24.446 --> 00:14:26.647 But just to put them out there, because

NOTE Confidence: 0.8595376

00:14:26.647 --> 00:14:28.516 I think it's important grounding for us.

NOTE Confidence: 0.8595376

00:14:28.520 --> 00:14:29.860 Alright, so there's this thought.

NOTE Confidence: 0.8595376

00:14:29.860 --> 00:14:31.150 There's always that thought that

NOTE Confidence: 0.8595376

00:14:31.150 --> 00:14:32.810 maybe you're just a bad person.

NOTE Confidence: 0.8595376

00:14:32.810 --> 00:14:35.710 Maybe you're just lazy.

NOTE Confidence: 0.8595376

00:14:35.710 --> 00:14:36.463 With mental illness,

NOTE Confidence: 0.8595376

00:14:36.463 --> 00:14:38.779 it's so hard to know what you did wrong,  
NOTE Confidence: 0.8595376

00:14:38.780 --> 00:14:39.030 right?  
NOTE Confidence: 0.8595376

00:14:39.030 --> 00:14:40.280 So the assumption there is  
NOTE Confidence: 0.8595376

00:14:40.280 --> 00:14:41.600 that you did something wrong,  
NOTE Confidence: 0.8595376

00:14:41.600 --> 00:14:45.030 but it's your fault somehow, right?  
NOTE Confidence: 0.8595376

00:14:45.030 --> 00:14:46.870 And then so that was people who live  
NOTE Confidence: 0.8595376

00:14:46.870 --> 00:14:48.289 with psychiatric disorders themselves.  
NOTE Confidence: 0.8595376

00:14:48.290 --> 00:14:49.378 But of course psychiatric  
NOTE Confidence: 0.8595376

00:14:49.378 --> 00:14:50.194 disorders affect families.  
NOTE Confidence: 0.8595376

00:14:50.200 --> 00:14:51.908 And so I I've spent a lot  
NOTE Confidence: 0.8595376

00:14:51.908 --> 00:14:53.459 of time at this point,  
NOTE Confidence: 0.8595376

00:14:53.460 --> 00:14:54.210 working with families,  
NOTE Confidence: 0.8595376

00:14:54.210 --> 00:14:56.328 and I have yet to meet a parent  
NOTE Confidence: 0.8595376

00:14:56.328 --> 00:14:58.182 of a child with a psychiatric  
NOTE Confidence: 0.8595376

00:14:58.182 --> 00:14:59.648 disorder that doesn't feel like  
NOTE Confidence: 0.8595376

00:14:59.648 --> 00:15:01.342 it was their fault in some way.

NOTE Confidence: 0.8595376

00:15:01.350 --> 00:15:03.247 And that can be for different reasons.

NOTE Confidence: 0.8595376

00:15:03.250 --> 00:15:05.426 I'm going to illustrate two of those here,

NOTE Confidence: 0.8595376

00:15:05.430 --> 00:15:07.110 so this is a quote from a mother

NOTE Confidence: 0.8595376

00:15:07.110 --> 00:15:09.239 of a child with Asperger syndrome,

NOTE Confidence: 0.8595376

00:15:09.240 --> 00:15:11.520 but it could be a mother of a child with

NOTE Confidence: 0.8595376

00:15:11.579 --> 00:15:13.854 any or father for that matter condition.

NOTE Confidence: 0.8595376

00:15:13.860 --> 00:15:14.730 So she says.

NOTE Confidence: 0.8595376

00:15:14.730 --> 00:15:16.180 The feeling that we somehow

NOTE Confidence: 0.8595376

00:15:16.180 --> 00:15:17.389 cause this is strong.

NOTE Confidence: 0.8595376

00:15:17.390 --> 00:15:18.770 This happens because we are judged

NOTE Confidence: 0.8595376

00:15:18.770 --> 00:15:20.520 harshly due to our child's behaviors.

NOTE Confidence: 0.8595376

00:15:20.520 --> 00:15:22.932 I was lectured by family members

NOTE Confidence: 0.8595376

00:15:22.932 --> 00:15:24.540 about her parenting skills.

NOTE Confidence: 0.8595376

00:15:24.540 --> 00:15:26.190 So she's feeling guilty about parenting,

NOTE Confidence: 0.8595376

00:15:26.190 --> 00:15:26.734 you know?

NOTE Confidence: 0.8595376



00:15:26.734 --> 00:15:28.638 So people judging her and thinking that  
NOTE Confidence: 0.8595376

00:15:28.638 --> 00:15:30.864 you know because she's not a good parent.  
NOTE Confidence: 0.8595376

00:15:30.870 --> 00:15:32.520 That's why her child has stuff.  
NOTE Confidence: 0.8595376

00:15:32.520 --> 00:15:34.438 But people also feel guilty about genetics,  
NOTE Confidence: 0.8595376

00:15:34.440 --> 00:15:35.820 as illustrated by this quote.  
NOTE Confidence: 0.8595376

00:15:35.820 --> 00:15:37.190 It came from my side.  
NOTE Confidence: 0.8595376

00:15:37.190 --> 00:15:38.290 I've got the guilt.  
NOTE Confidence: 0.8595376

00:15:38.290 --> 00:15:39.665 If I hadn't had him,  
NOTE Confidence: 0.8595376

00:15:39.670 --> 00:15:41.040 he wouldn't be like that.  
NOTE Confidence: 0.8595376

00:15:41.040 --> 00:15:42.965 If I'd known more at the time,  
NOTE Confidence: 0.8595376

00:15:42.970 --> 00:15:44.400 I probably wouldn't have had  
NOTE Confidence: 0.8595376

00:15:44.400 --> 00:15:45.830 any children because of what  
NOTE Confidence: 0.8595376

00:15:45.884 --> 00:15:47.089 I've seen happen to him.  
NOTE Confidence: 0.8595376

00:15:47.090 --> 00:15:48.490 I didn't think about this  
NOTE Confidence: 0.8595376

00:15:48.490 --> 00:15:49.890 being passed on when I  
NOTE Confidence: 0.87080884

00:15:49.948 --> 00:15:50.940 was 23 years old.

NOTE Confidence: 0.87080884

00:15:50.940 --> 00:15:53.140 You think this will never happen to me,

NOTE Confidence: 0.87080884

00:15:53.140 --> 00:15:55.065 so this father doesn't have bipolar himself,

NOTE Confidence: 0.87080884

00:15:55.070 --> 00:15:56.610 but his his child does.

NOTE Confidence: 0.87080884

00:15:56.610 --> 00:15:58.675 And when it emerged in his child,

NOTE Confidence: 0.87080884

00:15:58.680 --> 00:16:01.048 the first thing that he thought was Oh

NOTE Confidence: 0.87080884

00:16:01.048 --> 00:16:03.416 my God, this is what aren't Rose had.

NOTE Confidence: 0.87080884

00:16:03.420 --> 00:16:05.262 This is exactly the same symptoms

NOTE Confidence: 0.87080884

00:16:05.262 --> 00:16:07.363 and so therefore it's my fault for

NOTE Confidence: 0.87080884

00:16:07.363 --> 00:16:08.968 passing on bad genes, quote unquote.

NOTE Confidence: 0.87080884

00:16:08.968 --> 00:16:10.522 So there's all sorts of ways

NOTE Confidence: 0.87080884

00:16:10.522 --> 00:16:11.772 in which people's explanations

NOTE Confidence: 0.87080884

00:16:11.772 --> 00:16:13.477 for cause of illness have,

NOTE Confidence: 0.87080884

00:16:13.480 --> 00:16:14.664 like really profound impact

NOTE Confidence: 0.87080884

00:16:14.664 --> 00:16:16.144 on how they feel about.

NOTE Confidence: 0.87080884

00:16:16.150 --> 00:16:18.510 And as I hope to show you later,

NOTE Confidence: 0.87080884

00:16:18.510 --> 00:16:21.128 how they react to having one of  
NOTE Confidence: 0.87080884

00:16:21.128 --> 00:16:23.129 these conditions in the family.  
NOTE Confidence: 0.87080884

00:16:23.130 --> 00:16:25.482 So how does this relate to  
NOTE Confidence: 0.87080884

00:16:25.482 --> 00:16:26.266 genetic counseling?  
NOTE Confidence: 0.87080884

00:16:26.270 --> 00:16:28.606 Well, I'd like to share with you the  
NOTE Confidence: 0.87080884

00:16:28.606 --> 00:16:31.102 definition of genetic counseling from the  
NOTE Confidence: 0.87080884

00:16:31.102 --> 00:16:33.412 world's largest and oldest professional  
NOTE Confidence: 0.87080884

00:16:33.412 --> 00:16:35.278 Association for genetic counselors,  
NOTE Confidence: 0.87080884

00:16:35.280 --> 00:16:37.626 of which I'm an ex president.  
NOTE Confidence: 0.87080884

00:16:37.630 --> 00:16:40.136 So the it's actually defined as a  
NOTE Confidence: 0.87080884

00:16:40.136 --> 00:16:42.729 process of helping people to understand.  
NOTE Confidence: 0.87080884

00:16:42.730 --> 00:16:44.298 Yes, information and adapt  
NOTE Confidence: 0.87080884

00:16:44.298 --> 00:16:45.866 counseling to the medical,  
NOTE Confidence: 0.87080884

00:16:45.870 --> 00:16:46.271 psychological,  
NOTE Confidence: 0.87080884

00:16:46.271 --> 00:16:48.276 and familial implications of genetic  
NOTE Confidence: 0.87080884

00:16:48.276 --> 00:16:49.880 contributions to disease right

NOTE Confidence: 0.87080884

00:16:49.937 --> 00:16:51.747 doesn't say anything about pregnancy.

NOTE Confidence: 0.87080884

00:16:51.750 --> 00:16:54.180 Doesn't say anything about genetic testing.

NOTE Confidence: 0.87080884

00:16:54.180 --> 00:16:56.460 Either it's talking about helping people

NOTE Confidence: 0.87080884

00:16:56.460 --> 00:16:58.819 understand and adapt to these things,

NOTE Confidence: 0.87080884

00:16:58.820 --> 00:17:03.185 and so I'm a bit of a like a.

NOTE Confidence: 0.87080884

00:17:03.190 --> 00:17:06.106 I don't know if Heretic is the right word,

NOTE Confidence: 0.87080884

00:17:06.110 --> 00:17:08.747 but I I like to push boundaries and to

NOTE Confidence: 0.87080884

00:17:08.747 --> 00:17:10.992 encourage people to think about things

NOTE Confidence: 0.87080884

00:17:10.992 --> 00:17:13.558 in different and challenging ways and to me,

NOTE Confidence: 0.87080884

00:17:13.560 --> 00:17:15.430 this definition of genetic counseling

NOTE Confidence: 0.87080884

00:17:15.430 --> 00:17:16.926 fits beautifully underneath the

NOTE Confidence: 0.87080884

00:17:16.926 --> 00:17:18.709 umbrella definition of psychotherapy.

NOTE Confidence: 0.87080884

00:17:18.710 --> 00:17:19.962 Um, so you know,

NOTE Confidence: 0.87080884

00:17:19.962 --> 00:17:21.840 and you can read the definition

NOTE Confidence: 0.87080884

00:17:21.913 --> 00:17:23.089 for yourself here,

NOTE Confidence: 0.87080884

00:17:23.090 --> 00:17:25.540 but this is the definition from the  
NOTE Confidence: 0.87080884

00:17:25.540 --> 00:17:27.140 American Psychological Association from 1990.  
NOTE Confidence: 0.87080884

00:17:27.140 --> 00:17:29.040 And so you know,  
NOTE Confidence: 0.87080884

00:17:29.040 --> 00:17:30.465 people like to.  
NOTE Confidence: 0.87080884

00:17:30.470 --> 00:17:32.530 Think about psychotherapy as necessitating  
NOTE Confidence: 0.87080884

00:17:32.530 --> 00:17:34.178 long-term relationships with people.  
NOTE Confidence: 0.87080884

00:17:34.180 --> 00:17:34.522 Or,  
NOTE Confidence: 0.87080884

00:17:34.522 --> 00:17:35.206 you know,  
NOTE Confidence: 0.87080884

00:17:35.206 --> 00:17:36.916 people tend to think that  
NOTE Confidence: 0.87080884

00:17:36.916 --> 00:17:38.236 psychotherapy equals psychoanalysis  
NOTE Confidence: 0.87080884

00:17:38.236 --> 00:17:39.949 or psychodynamic therapy,  
NOTE Confidence: 0.87080884

00:17:39.950 --> 00:17:41.594 or something like that,  
NOTE Confidence: 0.87080884

00:17:41.594 --> 00:17:43.649 which of course it isn't.  
NOTE Confidence: 0.87080884

00:17:43.650 --> 00:17:44.886 So I see,  
NOTE Confidence: 0.87080884

00:17:44.886 --> 00:17:47.358 genetic counseling is a very circumscribed,  
NOTE Confidence: 0.87080884

00:17:47.360 --> 00:17:49.420 time limited form of psychotherapy.

NOTE Confidence: 0.87080884

00:17:49.420 --> 00:17:52.716 But we can argue that at the end,

NOTE Confidence: 0.87080884

00:17:52.720 --> 00:17:55.800 if you'd like to.

NOTE Confidence: 0.87080884

00:17:55.800 --> 00:17:56.060 Anyway,

NOTE Confidence: 0.87080884

00:17:56.060 --> 00:17:58.140 so so so just to give you a

NOTE Confidence: 0.87080884

00:17:58.140 --> 00:17:59.799 bit of a grounding here.

NOTE Confidence: 0.87080884

00:17:59.800 --> 00:18:02.088 So what do we actually do in genetic

NOTE Confidence: 0.87080884

00:18:02.088 --> 00:18:02.374 counseling?

NOTE Confidence: 0.87080884

00:18:02.380 --> 00:18:02.964 Well really,

NOTE Confidence: 0.87080884

00:18:02.964 --> 00:18:04.716 it's about helping people to make

NOTE Confidence: 0.87080884

00:18:04.716 --> 00:18:06.378 meaning to make meaning of how,

NOTE Confidence: 0.87080884

00:18:06.380 --> 00:18:07.750 not just tell them information

NOTE Confidence: 0.87080884

00:18:07.750 --> 00:18:09.120 about how genes and experiences

NOTE Confidence: 0.87080884

00:18:09.173 --> 00:18:10.925 act together to contribute to the

NOTE Confidence: 0.87080884

00:18:10.925 --> 00:18:12.093 development of these conditions.

NOTE Confidence: 0.87080884

00:18:12.100 --> 00:18:13.816 And we've developed a visual analogy,

NOTE Confidence: 0.87080884

00:18:13.820 --> 00:18:15.530 but we found to be profoundly  
NOTE Confidence: 0.87080884

00:18:15.530 --> 00:18:16.385 helpful for people,  
NOTE Confidence: 0.87080884

00:18:16.390 --> 00:18:18.385 and I'm sharing that with you here.  
NOTE Confidence: 0.87080884

00:18:18.390 --> 00:18:20.088 So the concept is that everybody  
NOTE Confidence: 0.87080884

00:18:20.088 --> 00:18:22.227 has a mental illness jar and that  
NOTE Confidence: 0.87080884

00:18:22.227 --> 00:18:23.802 there are two different types  
NOTE Confidence: 0.87080884

00:18:23.802 --> 00:18:24.981 of vulnerability factor that  
NOTE Confidence: 0.87080884

00:18:24.981 --> 00:18:26.682 you can use to fill your jar.  
NOTE Confidence: 0.87080884

00:18:26.690 --> 00:18:27.906 Those genetic factors which  
NOTE Confidence: 0.87080884

00:18:27.906 --> 00:18:28.818 are represented here.  
NOTE Confidence: 0.87080884

00:18:28.820 --> 00:18:30.760 By the orange balls and  
NOTE Confidence: 0.87080884

00:18:30.760 --> 00:18:31.924 environmental vulnerability factors,  
NOTE Confidence: 0.87080884

00:18:31.930 --> 00:18:34.335 which are represented here by  
NOTE Confidence: 0.87080884

00:18:34.335 --> 00:18:35.778 the Blue Pyramids.  
NOTE Confidence: 0.87080884

00:18:35.780 --> 00:18:37.733 And we talk about how an episode  
NOTE Confidence: 0.87080884

00:18:37.733 --> 00:18:39.132 of mental illness happens when

NOTE Confidence: 0.87080884

00:18:39.132 --> 00:18:40.889 the jar fills all the way to

NOTE Confidence: 0.87080884

00:18:40.889 --> 00:18:42.428 the top essentially right.

NOTE Confidence: 0.87080884

00:18:42.430 --> 00:18:44.075 So you can see in this picture

NOTE Confidence: 0.87080884

00:18:44.075 --> 00:18:44.780 that the amount

NOTE Confidence: 0.83652776

00:18:44.834 --> 00:18:45.908 of genetic vulnerability

NOTE Confidence: 0.83652776

00:18:45.908 --> 00:18:47.340 stays the same overtime,

NOTE Confidence: 0.83652776

00:18:47.340 --> 00:18:49.356 which reflects what we know from real.

NOTE Confidence: 0.83652776

00:18:49.360 --> 00:18:51.680 You know, from the research that's been done,

NOTE Confidence: 0.83652776

00:18:51.680 --> 00:18:53.960 but what can change over time is how much of

NOTE Confidence: 0.83652776

00:18:54.016 --> 00:18:56.296 that environmental vulnerability in the jar.

NOTE Confidence: 0.83652776

00:18:56.300 --> 00:18:58.892 So obviously, if you've got a CMB going on,

NOTE Confidence: 0.83652776

00:18:58.900 --> 00:19:00.315 we have different pictures that

NOTE Confidence: 0.83652776

00:19:00.315 --> 00:19:02.370 represent that as a larger orange ball.

NOTE Confidence: 0.83652776

00:19:02.370 --> 00:19:03.810 And if we're talking about

NOTE Confidence: 0.83652776

00:19:03.810 --> 00:19:04.674 large environmental stresses,

NOTE Confidence: 0.83652776



00:19:04.680 --> 00:19:05.616 covid for example.  
NOTE Confidence: 0.83652776

00:19:05.616 --> 00:19:07.800 We have a version where we've got  
NOTE Confidence: 0.83652776

00:19:07.860 --> 00:19:09.748 a large pyramid in the job, right?  
NOTE Confidence: 0.83652776

00:19:09.748 --> 00:19:11.624 So so there's all sorts of different  
NOTE Confidence: 0.83652776

00:19:11.624 --> 00:19:13.279 ways of making this really  
NOTE Confidence: 0.83652776

00:19:13.279 --> 00:19:14.691 meaningful and personalized for  
NOTE Confidence: 0.83652776

00:19:14.691 --> 00:19:16.540 people search up circumstances.  
NOTE Confidence: 0.83652776

00:19:16.540 --> 00:19:18.460 We talk with people about how everyone has  
NOTE Confidence: 0.83652776

00:19:18.460 --> 00:19:20.390 some genetic vulnerability to mental illness.  
NOTE Confidence: 0.83652776

00:19:20.390 --> 00:19:22.140 Um, a few of us are going  
NOTE Confidence: 0.83652776

00:19:22.140 --> 00:19:23.420 to have very little.  
NOTE Confidence: 0.83652776

00:19:23.420 --> 00:19:26.170 Few of us are going to have an awful lot.  
NOTE Confidence: 0.83652776

00:19:26.170 --> 00:19:27.724 Most of us are gonna actually  
NOTE Confidence: 0.83652776

00:19:27.724 --> 00:19:29.190 be somewhere in the middle.  
NOTE Confidence: 0.83652776

00:19:29.190 --> 00:19:29.648 I mean,  
NOTE Confidence: 0.83652776

00:19:29.648 --> 00:19:31.251 that's really what we know from the

NOTE Confidence: 0.83652776

00:19:31.251 --> 00:19:32.920 Genome Wide Association studies that

NOTE Confidence: 0.83652776

00:19:32.920 --> 00:19:34.660 most of these single nucleotide

NOTE Confidence: 0.83652776

00:19:34.660 --> 00:19:36.009 polymorphism's are so common in

NOTE Confidence: 0.83652776

00:19:36.009 --> 00:19:37.199 the population that we're all

NOTE Confidence: 0.83652776

00:19:37.199 --> 00:19:38.820 going to have some of them,

NOTE Confidence: 0.83652776

00:19:38.820 --> 00:19:40.470 so that may again sounds trivial,

NOTE Confidence: 0.83652776

00:19:40.470 --> 00:19:41.845 but for people who live

NOTE Confidence: 0.83652776

00:19:41.845 --> 00:19:42.670 with these conditions,

NOTE Confidence: 0.83652776

00:19:42.670 --> 00:19:44.320 that can be revolutionary, you know.

NOTE Confidence: 0.83652776

00:19:44.320 --> 00:19:46.462 So you mean that I'm not just

NOTE Confidence: 0.83652776

00:19:46.462 --> 00:19:47.939 biologically defective in some way.

NOTE Confidence: 0.83652776

00:19:47.940 --> 00:19:49.530 You know that kind of idea,

NOTE Confidence: 0.83652776

00:19:49.530 --> 00:19:51.360 so it can be profoundly

NOTE Confidence: 0.83652776

00:19:51.360 --> 00:19:53.190 destigmatizing for people to hear

NOTE Confidence: 0.83652776

00:19:53.255 --> 00:19:55.307 this and to really integrate it.

NOTE Confidence: 0.83652776

00:19:55.310 --> 00:19:56.237 But for me,  
NOTE Confidence: 0.83652776

00:19:56.237 --> 00:19:58.091 the best part about genetic counseling  
NOTE Confidence: 0.83652776

00:19:58.091 --> 00:20:00.177 for psychiatric disorders is that.  
NOTE Confidence: 0.83652776

00:20:00.180 --> 00:20:01.950 You don't just get to talk  
NOTE Confidence: 0.83652776

00:20:01.950 --> 00:20:03.510 about how people get sick,  
NOTE Confidence: 0.83652776

00:20:03.510 --> 00:20:05.280 which is what happens if you're  
NOTE Confidence: 0.83652776

00:20:05.280 --> 00:20:06.460 counseling about huntingtons or  
NOTE Confidence: 0.83652776

00:20:06.512 --> 00:20:08.057 Down syndrome or cystic fibrosis.  
NOTE Confidence: 0.83652776

00:20:08.060 --> 00:20:09.878 In the context of psychiatric disorders,  
NOTE Confidence: 0.83652776

00:20:09.880 --> 00:20:12.512 we get to talk about how people  
NOTE Confidence: 0.83652776

00:20:12.512 --> 00:20:13.640 can get better.  
NOTE Confidence: 0.83652776

00:20:13.640 --> 00:20:16.056 So in the context of this John model,  
NOTE Confidence: 0.83652776

00:20:16.060 --> 00:20:17.880 the way the way that we talk  
NOTE Confidence: 0.83652776

00:20:17.880 --> 00:20:20.084 about it is that you can't change  
NOTE Confidence: 0.83652776

00:20:20.084 --> 00:20:22.112 the genetic stuff in your job.  
NOTE Confidence: 0.83652776

00:20:22.120 --> 00:20:23.938 That's what this picture is representing,

NOTE Confidence: 0.83652776

00:20:23.940 --> 00:20:25.760 and there may be some things that

NOTE Confidence: 0.83652776

00:20:25.760 --> 00:20:28.379 you can do to remove some of the

NOTE Confidence: 0.83652776

00:20:28.379 --> 00:20:29.927 environmental stuff, like for example,

NOTE Confidence: 0.83652776

00:20:29.927 --> 00:20:32.430 if you're smoking an awful lot of cannabis.

NOTE Confidence: 0.83652776

00:20:32.430 --> 00:20:34.236 Let's say that is within your.

NOTE Confidence: 0.83652776

00:20:34.240 --> 00:20:34.543 Theoretically,

NOTE Confidence: 0.83652776

00:20:34.543 --> 00:20:36.058 at least that's within your

NOTE Confidence: 0.83652776

00:20:36.058 --> 00:20:36.664 control occasionally.

NOTE Confidence: 0.83652776

00:20:36.670 --> 00:20:38.524 If you're in an incredibly stressful

NOTE Confidence: 0.83652776

00:20:38.524 --> 00:20:39.760 environment that's contributing to

NOTE Confidence: 0.83652776

00:20:39.813 --> 00:20:41.208 your negative mental well being,

NOTE Confidence: 0.83652776

00:20:41.210 --> 00:20:43.828 it may be possible to remove that.

NOTE Confidence: 0.83652776

00:20:43.830 --> 00:20:45.515 Maybe, but acknowledging that can

NOTE Confidence: 0.83652776

00:20:45.515 --> 00:20:46.526 be incredibly hard,

NOTE Confidence: 0.83652776

00:20:46.530 --> 00:20:47.544 but it's possible.

NOTE Confidence: 0.83652776

00:20:47.544 --> 00:20:49.234 But in addition to that,  
NOTE Confidence: 0.83652776

00:20:49.240 --> 00:20:51.184 like in the third picture that  
NOTE Confidence: 0.83652776

00:20:51.184 --> 00:20:53.290 you're looking at the final panel,  
NOTE Confidence: 0.83652776

00:20:53.290 --> 00:20:55.005 the jar actually has two  
NOTE Confidence: 0.83652776

00:20:55.005 --> 00:20:57.010 rings sticking on top of it,  
NOTE Confidence: 0.83652776

00:20:57.010 --> 00:20:58.696 and what they're doing is making  
NOTE Confidence: 0.83652776

00:20:58.696 --> 00:21:00.983 the job taller so that it can  
NOTE Confidence: 0.83652776

00:21:00.983 --> 00:21:02.813 accommodate more of that environmental  
NOTE Confidence: 0.83652776

00:21:02.813 --> 00:21:04.788 stressor stuff without getting full.  
NOTE Confidence: 0.83652776

00:21:04.790 --> 00:21:07.149 So we talk with people about sleep,  
NOTE Confidence: 0.83652776

00:21:07.150 --> 00:21:08.158 exercise, social support,  
NOTE Confidence: 0.83652776

00:21:08.158 --> 00:21:08.494 nutrition,  
NOTE Confidence: 0.83652776

00:21:08.494 --> 00:21:10.174 finding more effective ways to  
NOTE Confidence: 0.83652776

00:21:10.174 --> 00:21:11.877 manage stress as protective factors,  
NOTE Confidence: 0.83652776

00:21:11.880 --> 00:21:13.980 and of course for people who've  
NOTE Confidence: 0.83652776

00:21:13.980 --> 00:21:15.778 had a diagnosis medication can

NOTE Confidence: 0.83652776

00:21:15.778 --> 00:21:17.438 play a really important role.

NOTE Confidence: 0.83652776

00:21:17.440 --> 00:21:18.624 As a protective factor,

NOTE Confidence: 0.83652776

00:21:18.624 --> 00:21:20.400 we also help people to identify

NOTE Confidence: 0.8526176

00:21:20.460 --> 00:21:22.272 the more sort of individual level

NOTE Confidence: 0.8526176

00:21:22.272 --> 00:21:24.019 things that might work for them.

NOTE Confidence: 0.8526176

00:21:24.020 --> 00:21:26.810 Spending time with a pet.

NOTE Confidence: 0.8526176

00:21:26.810 --> 00:21:28.066 You know mindfulness meditation,

NOTE Confidence: 0.8526176

00:21:28.066 --> 00:21:30.708 which doesn't work for me and I'm happy to

NOTE Confidence: 0.8526176

00:21:30.708 --> 00:21:32.650 tell you about why later if you'd like.

NOTE Confidence: 0.8526176

00:21:32.650 --> 00:21:34.432 But basically it triggered the panic

NOTE Confidence: 0.8526176

00:21:34.432 --> 00:21:36.152 attack 'cause everybody else looked so

NOTE Confidence: 0.8526176

00:21:36.152 --> 00:21:37.846 peaceful and serene and I couldn't stop

NOTE Confidence: 0.8526176

00:21:37.846 --> 00:21:39.597 the thoughts coming through my head.

NOTE Confidence: 0.8526176

00:21:39.600 --> 00:21:41.539 So yeah, didn't work great for me,

NOTE Confidence: 0.8526176

00:21:41.540 --> 00:21:43.660 but so many people over the years have

NOTE Confidence: 0.8526176

00:21:43.660 --> 00:21:45.990 told me that it really works for them.  
NOTE Confidence: 0.8526176

00:21:45.990 --> 00:21:48.559 So it's helping people to identify those  
NOTE Confidence: 0.8526176

00:21:48.559 --> 00:21:50.958 things that that that work for them.  
NOTE Confidence: 0.8526176

00:21:50.960 --> 00:21:53.172 So that's just a very brief intro  
NOTE Confidence: 0.8526176

00:21:53.172 --> 00:21:54.949 to what actually goes on now.  
NOTE Confidence: 0.8526176

00:21:54.950 --> 00:21:56.774 What I'd like to do is share with  
NOTE Confidence: 0.8526176

00:21:56.774 --> 00:21:58.878 you 2 case examples that hopefully  
NOTE Confidence: 0.8526176

00:21:58.878 --> 00:22:01.260 illustrate that more thoroughly for you  
NOTE Confidence: 0.8526176

00:22:01.327 --> 00:22:03.543 and what the what the outcomes can be.  
NOTE Confidence: 0.8526176

00:22:03.550 --> 00:22:05.534 So of course I've changed him like key  
NOTE Confidence: 0.8526176

00:22:05.534 --> 00:22:07.538 things to protect people's identities,  
NOTE Confidence: 0.8526176

00:22:07.540 --> 00:22:09.070 but everything that I'm sharing  
NOTE Confidence: 0.8526176

00:22:09.070 --> 00:22:10.606 with you really, truly happened.  
NOTE Confidence: 0.8526176

00:22:10.606 --> 00:22:11.530 OK, so yeah,  
NOTE Confidence: 0.8526176

00:22:11.530 --> 00:22:13.189 so the first case I'd like to  
NOTE Confidence: 0.8526176

00:22:13.189 --> 00:22:14.842 share is about somebody they always

NOTE Confidence: 0.8526176

00:22:14.842 --> 00:22:16.914 called Bob and Bob had a diagnosis

NOTE Confidence: 0.8526176

00:22:16.970 --> 00:22:18.855 of schizoaffective disorder and he

NOTE Confidence: 0.8526176

00:22:18.855 --> 00:22:20.740 was not doing well psychiatrically.

NOTE Confidence: 0.8526176

00:22:20.740 --> 00:22:22.330 He was actually in hospital.

NOTE Confidence: 0.8526176

00:22:22.330 --> 00:22:23.526 Because he'd attempted suicide.

NOTE Confidence: 0.8526176

00:22:23.526 --> 00:22:25.320 Recently he was actually in the

NOTE Confidence: 0.8526176

00:22:25.367 --> 00:22:27.332 hospital fighting with his psychiatrist

NOTE Confidence: 0.8526176

00:22:27.332 --> 00:22:28.118 about medications.

NOTE Confidence: 0.8526176

00:22:28.120 --> 00:22:29.485 The psychiatrist was of course

NOTE Confidence: 0.8526176

00:22:29.485 --> 00:22:31.383 saying if you want to get better

NOTE Confidence: 0.8526176

00:22:31.383 --> 00:22:33.271 and you'd like to get out of here,

NOTE Confidence: 0.8526176

00:22:33.280 --> 00:22:35.344 then you're gonna have to take this stuff.

NOTE Confidence: 0.8526176

00:22:35.350 --> 00:22:37.149 And Bob was saying not really interested.

NOTE Confidence: 0.8526176

00:22:37.150 --> 00:22:38.984 So there was a whole bunch of

NOTE Confidence: 0.8526176

00:22:38.984 --> 00:22:40.770 frustration going on and not much else,

NOTE Confidence: 0.8526176



00:22:40.770 --> 00:22:42.541 but he'd seen a post up in  
NOTE Confidence: 0.8526176

00:22:42.541 --> 00:22:43.600 the hospital for one.  
NOTE Confidence: 0.8526176

00:22:43.600 --> 00:22:45.476 It was a research study providing genetic  
NOTE Confidence: 0.8526176

00:22:45.476 --> 00:22:47.218 counseling in that context and it said,  
NOTE Confidence: 0.8526176

00:22:47.220 --> 00:22:49.019 do you have a diagnosis of schizophrenia,  
NOTE Confidence: 0.8526176

00:22:49.020 --> 00:22:49.824 schizoaffective or bipolar?  
NOTE Confidence: 0.8526176

00:22:49.824 --> 00:22:51.432 Would you like to better understand  
NOTE Confidence: 0.8526176

00:22:51.432 --> 00:22:52.628 why you have your illness?  
NOTE Confidence: 0.8526176

00:22:52.630 --> 00:22:53.236 If so,  
NOTE Confidence: 0.8526176

00:22:53.236 --> 00:22:55.054 give us a call so that's  
NOTE Confidence: 0.8526176

00:22:55.054 --> 00:22:56.279 exactly what he done.  
NOTE Confidence: 0.8526176

00:22:56.280 --> 00:22:57.810 So I was there to meet  
NOTE Confidence: 0.8526176

00:22:57.810 --> 00:22:59.200 with him because of that.  
NOTE Confidence: 0.8526176

00:22:59.200 --> 00:23:01.320 So I like to do my genetic counseling,  
NOTE Confidence: 0.8526176

00:23:01.320 --> 00:23:02.946 not just sort of sitting down  
NOTE Confidence: 0.8526176

00:23:02.946 --> 00:23:04.230 and getting straight into it.

NOTE Confidence: 0.8526176

00:23:04.230 --> 00:23:06.880 I like to do a little bit of chit chat,

NOTE Confidence: 0.8526176

00:23:06.880 --> 00:23:08.986 get to know you at the beginning, right?

NOTE Confidence: 0.8526176

00:23:08.986 --> 00:23:11.919 So I sat down with Bob to do my chit chat,

NOTE Confidence: 0.8526176

00:23:11.920 --> 00:23:13.504 get to know you and it turns out

NOTE Confidence: 0.8526176

00:23:13.504 --> 00:23:15.321 that he actually had a graduate

NOTE Confidence: 0.8526176

00:23:15.321 --> 00:23:16.685 degree in psychiatric genetics,

NOTE Confidence: 0.8526176

00:23:16.690 --> 00:23:17.574 which I have to.

NOTE Confidence: 0.8526176

00:23:17.574 --> 00:23:19.470 So we had this complete nerd out session

NOTE Confidence: 0.8526176

00:23:19.470 --> 00:23:21.262 about where you at the World Congress

NOTE Confidence: 0.8526176

00:23:21.262 --> 00:23:23.047 on psychiatric genetics and this,

NOTE Confidence: 0.8526176

00:23:23.050 --> 00:23:25.170 you know you were all wasn't it good,

NOTE Confidence: 0.8526176

00:23:25.170 --> 00:23:25.796 you know?

NOTE Confidence: 0.8526176

00:23:25.796 --> 00:23:26.109 Anyway,

NOTE Confidence: 0.8526176

00:23:26.109 --> 00:23:28.890 so we had this lovely nerd out session,

NOTE Confidence: 0.8526176

00:23:28.890 --> 00:23:31.122 but what that did to me was basically

NOTE Confidence: 0.8526176

00:23:31.122 --> 00:23:33.677 make me assume that I knew what his  
NOTE Confidence: 0.8526176

00:23:33.677 --> 00:23:36.088 explanation for cause of illness would be,  
NOTE Confidence: 0.8526176

00:23:36.090 --> 00:23:37.728 and so that's the fundamental question  
NOTE Confidence: 0.8526176

00:23:37.728 --> 00:23:39.839 that you ask in genetic counseling.  
NOTE Confidence: 0.8526176

00:23:39.840 --> 00:23:41.410 No matter what the condition,  
NOTE Confidence: 0.8526176

00:23:41.410 --> 00:23:43.433 can you tell me what you understand  
NOTE Confidence: 0.8526176

00:23:43.433 --> 00:23:45.789 to be the cause of your illness?  
NOTE Confidence: 0.8718978

00:23:45.790 --> 00:23:47.668 And I almost didn't ask him  
NOTE Confidence: 0.8718978

00:23:47.668 --> 00:23:48.920 because of my assumption.  
NOTE Confidence: 0.8718978

00:23:48.920 --> 00:23:50.172 However, reptilian genetic counselor  
NOTE Confidence: 0.8718978

00:23:50.172 --> 00:23:52.408 brain kicked in and I did choke  
NOTE Confidence: 0.8718978

00:23:52.408 --> 00:23:54.256 out my question and his response  
NOTE Confidence: 0.8718978

00:23:54.256 --> 00:23:55.976 absolutely floored me, he said.  
NOTE Confidence: 0.8718978

00:23:55.976 --> 00:23:58.762 Bad life decisions and I was like.  
NOTE Confidence: 0.8718978

00:23:58.770 --> 00:24:00.982 But what we were just talking about  
NOTE Confidence: 0.8718978

00:24:00.982 --> 00:24:03.069 your graduate degree I don't understand.

NOTE Confidence: 0.8718978

00:24:03.070 --> 00:24:05.392 And he said, Oh no, I understand

NOTE Confidence: 0.8718978

00:24:05.392 --> 00:24:07.709 that at the level of the population,

NOTE Confidence: 0.8718978

00:24:07.710 --> 00:24:09.230 genetics is really important.

NOTE Confidence: 0.8718978

00:24:09.230 --> 00:24:12.643 It's just that I know that in my own case

NOTE Confidence: 0.8718978

00:24:12.643 --> 00:24:15.318 it was this thing that I did that thing.

NOTE Confidence: 0.8718978

00:24:15.320 --> 00:24:17.511 The fact that I smoked way too

NOTE Confidence: 0.8718978

00:24:17.511 --> 00:24:19.949 much pop when I was an adolescent.

NOTE Confidence: 0.8718978

00:24:19.950 --> 00:24:21.966 That's why I specifically

NOTE Confidence: 0.8718978

00:24:21.966 --> 00:24:23.478 have this condition.

NOTE Confidence: 0.8718978

00:24:23.480 --> 00:24:25.736 So another thing that we do in genetic

NOTE Confidence: 0.8718978

00:24:25.736 --> 00:24:27.570 counseling obviously is take a detailed

NOTE Confidence: 0.8718978

00:24:27.570 --> 00:24:28.790 three generation family history.

NOTE Confidence: 0.8718978

00:24:28.790 --> 00:24:30.265 In this case focused on

NOTE Confidence: 0.8718978

00:24:30.265 --> 00:24:30.855 psychiatric disorders.

NOTE Confidence: 0.8718978

00:24:30.860 --> 00:24:33.440 So I did that with Bob and of course he

NOTE Confidence: 0.8718978

00:24:33.515 --> 00:24:36.163 was able to give me all the information,  
NOTE Confidence: 0.8718978

00:24:36.170 --> 00:24:38.530 but he hadn't really sort of considered it.  
NOTE Confidence: 0.8718978

00:24:38.530 --> 00:24:40.300 In light of why he was,  
NOTE Confidence: 0.8718978

00:24:40.300 --> 00:24:42.660 he had the condition that he did so.  
NOTE Confidence: 0.8718978

00:24:42.660 --> 00:24:44.718 Actually both of his parents are affected,  
NOTE Confidence: 0.8718978

00:24:44.720 --> 00:24:45.900 not specifically with schizoaffective,  
NOTE Confidence: 0.8718978

00:24:45.900 --> 00:24:47.375 but with closely related conditions.  
NOTE Confidence: 0.8718978

00:24:47.380 --> 00:24:49.109 So I draw drawing out the family  
NOTE Confidence: 0.8718978

00:24:49.109 --> 00:24:51.298 history and I'm shading people in to  
NOTE Confidence: 0.8718978

00:24:51.298 --> 00:24:52.690 illustrate their affected status,  
NOTE Confidence: 0.8718978

00:24:52.690 --> 00:24:53.770 and I turn my.  
NOTE Confidence: 0.8718978

00:24:53.770 --> 00:24:55.732 You know picture of his family around  
NOTE Confidence: 0.8718978

00:24:55.732 --> 00:24:57.988 and show it to him together with the  
NOTE Confidence: 0.8718978

00:24:57.988 --> 00:25:00.178 jar model that we I just showed you  
NOTE Confidence: 0.8718978

00:25:00.178 --> 00:25:02.860 and he burst into tears and to use his words.  
NOTE Confidence: 0.8718978

00:25:02.860 --> 00:25:04.480 He started talking about how he

NOTE Confidence: 0.8718978

00:25:04.480 --> 00:25:06.406 felt for the first time like a

NOTE Confidence: 0.8718978

00:25:06.406 --> 00:25:07.990 weight of guilt is being lifted.

NOTE Confidence: 0.8718978

00:25:07.990 --> 00:25:10.125 He started to say things like I

NOTE Confidence: 0.8718978

00:25:10.125 --> 00:25:12.528 can see for the first time that

NOTE Confidence: 0.8718978

00:25:12.528 --> 00:25:14.652 perhaps it's not all my fault.

NOTE Confidence: 0.8718978

00:25:14.660 --> 00:25:14.934 Right,

NOTE Confidence: 0.8718978

00:25:14.934 --> 00:25:16.304 so basically that's why I'm

NOTE Confidence: 0.8718978

00:25:16.304 --> 00:25:17.400 talking to you today.

NOTE Confidence: 0.8718978

00:25:17.400 --> 00:25:19.800 'cause he's been living with his

NOTE Confidence: 0.8718978

00:25:19.800 --> 00:25:22.778 diagnosis for 20 years and it took me an

NOTE Confidence: 0.8718978

00:25:22.778 --> 00:25:25.910 hour and a half to get to a place that was.

NOTE Confidence: 0.8718978

00:25:25.910 --> 00:25:27.134 Quite profound for him.

NOTE Confidence: 0.8718978

00:25:27.134 --> 00:25:29.789 And again I want to show you that

NOTE Confidence: 0.8718978

00:25:29.789 --> 00:25:31.659 there's no genetic testing here.

NOTE Confidence: 0.8718978

00:25:31.660 --> 00:25:33.350 We're not talking about pregnancy,

NOTE Confidence: 0.8718978

00:25:33.350 --> 00:25:35.040 but this is genetic counseling.  
NOTE Confidence: 0.8718978

00:25:35.040 --> 00:25:36.840 But the story doesn't even end  
NOTE Confidence: 0.8718978

00:25:36.840 --> 00:25:38.471 there because he was participating  
NOTE Confidence: 0.8718978

00:25:38.471 --> 00:25:40.691 in this research study we followed  
NOTE Confidence: 0.8718978

00:25:40.691 --> 00:25:42.810 up with people one month later,  
NOTE Confidence: 0.8718978

00:25:42.810 --> 00:25:45.176 and when I did that with him,  
NOTE Confidence: 0.8718978

00:25:45.180 --> 00:25:47.236 he was able to explain to me that  
NOTE Confidence: 0.8718978

00:25:47.236 --> 00:25:49.760 once he understood that there was a  
NOTE Confidence: 0.8718978

00:25:49.760 --> 00:25:52.270 biological contribution to his own illness,  
NOTE Confidence: 0.8718978

00:25:52.270 --> 00:25:53.978 then a biological treatment  
NOTE Confidence: 0.8718978

00:25:53.978 --> 00:25:55.259 started making sense.  
NOTE Confidence: 0.8718978

00:25:55.260 --> 00:25:56.877 So we'd stop fighting with the psychiatrist  
NOTE Confidence: 0.8718978

00:25:56.877 --> 00:25:58.200 about medication he was taking them.  
NOTE Confidence: 0.8718978

00:25:58.200 --> 00:25:59.720 He was out of hospital and he was  
NOTE Confidence: 0.8718978

00:25:59.720 --> 00:26:00.678 doing much better psychiatrically  
NOTE Confidence: 0.8718978

00:26:00.678 --> 00:26:02.268 than he had been in years.

NOTE Confidence: 0.90774286

00:26:04.490 --> 00:26:07.274 So for me this is this is a.

NOTE Confidence: 0.90774286

00:26:07.280 --> 00:26:08.800 This is a big one.

NOTE Confidence: 0.90774286

00:26:08.800 --> 00:26:10.630 We actually designed an entire research

NOTE Confidence: 0.90774286

00:26:10.630 --> 00:26:12.791 study based on Bob's experience to try

NOTE Confidence: 0.90774286

00:26:12.791 --> 00:26:14.856 and work out if genetic counseling does.

NOTE Confidence: 0.90774286

00:26:14.860 --> 00:26:16.652 In fact, if we can quantitatively measure

NOTE Confidence: 0.90774286

00:26:16.652 --> 00:26:18.179 the change in medication adherence

NOTE Confidence: 0.90774286

00:26:18.179 --> 00:26:20.309 associated with what we're doing anyway,

NOTE Confidence: 0.90774286

00:26:20.310 --> 00:26:22.128 I can tell you about that

NOTE Confidence: 0.90774286

00:26:22.128 --> 00:26:23.340 later if you're interested.

NOTE Confidence: 0.90774286

00:26:23.340 --> 00:26:25.860 But anyway, for the for the haters and

NOTE Confidence: 0.90774286

00:26:25.860 --> 00:26:28.184 doubters amongst you who are going, Oh yeah,

NOTE Confidence: 0.90774286

00:26:28.184 --> 00:26:30.256 well, that's all very well, isn't it?

NOTE Confidence: 0.90774286

00:26:30.256 --> 00:26:32.480 But you do genetic counseling and he needed

NOTE Confidence: 0.90774286

00:26:32.538 --> 00:26:34.848 to be convinced that genetics was important,

NOTE Confidence: 0.90774286



00:26:34.850 --> 00:26:37.946 but what if it was the other way round?  
NOTE Confidence: 0.90774286

00:26:37.950 --> 00:26:40.366 What about if somebody knows it's all just,  
NOTE Confidence: 0.90774286

00:26:40.370 --> 00:26:42.188 you know, thinks it's all genetics,  
NOTE Confidence: 0.90774286

00:26:42.190 --> 00:26:43.402 what then got you?  
NOTE Confidence: 0.90774286

00:26:43.402 --> 00:26:45.222 Don't worry, that's my next case.  
NOTE Confidence: 0.90774286

00:26:45.222 --> 00:26:47.936 So OK, so this one is about somebody  
NOTE Confidence: 0.90774286

00:26:47.936 --> 00:26:50.179 I always like to call Jane.  
NOTE Confidence: 0.90774286

00:26:50.180 --> 00:26:53.004 And Jane had a diagnosis of bipolar disorder  
NOTE Confidence: 0.90774286

00:26:53.004 --> 00:26:55.359 about which she was very out at work.  
NOTE Confidence: 0.90774286

00:26:55.360 --> 00:26:57.088 So everybody knew they were writing  
NOTE Confidence: 0.90774286

00:26:57.088 --> 00:26:59.250 articles about in the company newsletter.  
NOTE Confidence: 0.90774286

00:26:59.250 --> 00:27:01.194 You know, to do self congratulatory  
NOTE Confidence: 0.90774286

00:27:01.194 --> 00:27:02.490 back patting about look,  
NOTE Confidence: 0.90774286

00:27:02.490 --> 00:27:04.434 how good we are at supporting  
NOTE Confidence: 0.90774286

00:27:04.434 --> 00:27:05.730 people with mental illness.  
NOTE Confidence: 0.90774286

00:27:05.730 --> 00:27:07.674 She loved her work and she's

NOTE Confidence: 0.90774286

00:27:07.674 --> 00:27:08.970 really good at it.

NOTE Confidence: 0.90774286

00:27:08.970 --> 00:27:11.203 So when she came in my first

NOTE Confidence: 0.90774286

00:27:11.203 --> 00:27:12.859 impression of her was like,

NOTE Confidence: 0.90774286

00:27:12.860 --> 00:27:14.798 wow, this is 1 empowered lady.

NOTE Confidence: 0.90774286

00:27:14.800 --> 00:27:17.068 However, her mental health was not great.

NOTE Confidence: 0.90774286

00:27:17.070 --> 00:27:19.020 Her physical health was not great.

NOTE Confidence: 0.90774286

00:27:19.020 --> 00:27:20.368 She was quite overweight.

NOTE Confidence: 0.90774286

00:27:20.368 --> 00:27:21.716 She had sleep apnea.

NOTE Confidence: 0.90774286

00:27:21.720 --> 00:27:23.140 And as you can imagine,

NOTE Confidence: 0.90774286

00:27:23.140 --> 00:27:23.986 with bipolar disorder,

NOTE Confidence: 0.90774286

00:27:23.986 --> 00:27:25.678 that's not a great combination necessarily,

NOTE Confidence: 0.90774286

00:27:25.680 --> 00:27:27.346 and so she was having to take

NOTE Confidence: 0.90774286

00:27:27.346 --> 00:27:29.294 time off the job that she loved

NOTE Confidence: 0.90774286

00:27:29.294 --> 00:27:31.058 because she was having periods of

NOTE Confidence: 0.90774286

00:27:31.124 --> 00:27:33.264 like depression that just really

NOTE Confidence: 0.90774286

00:27:33.264 --> 00:27:34.976 weren't particularly well managed.

NOTE Confidence: 0.90774286

00:27:34.980 --> 00:27:36.504 So I told him the fundamental

NOTE Confidence: 0.90774286

00:27:36.504 --> 00:27:37.520 genetic counseling question tell

NOTE Confidence: 0.90774286

00:27:37.569 --> 00:27:38.847 me what you understand about your

NOTE Confidence: 0.90774286

00:27:38.847 --> 00:27:40.500 illness and so she felt her illness

NOTE Confidence: 0.90774286

00:27:40.500 --> 00:27:41.755 was caused entirely by genetics.

NOTE Confidence: 0.90774286

00:27:41.760 --> 00:27:43.447 And when I tried pushing like so,

NOTE Confidence: 0.90774286

00:27:43.450 --> 00:27:45.151 can you know things like can you

NOTE Confidence: 0.90774286

00:27:45.151 --> 00:27:47.077 tell me what was going on for you?

NOTE Confidence: 0.90774286

00:27:47.080 --> 00:27:48.290 Do you think there's anything

NOTE Confidence: 0.90774286

00:27:48.290 --> 00:27:49.258 else and she's like?

NOTE Confidence: 0.90774286

00:27:49.260 --> 00:27:50.706 No, I know it's just genetics.

NOTE Confidence: 0.90774286

00:27:50.710 --> 00:27:51.678 That's why I'm here.

NOTE Confidence: 0.90774286

00:27:51.678 --> 00:27:52.646 So hurry up lady,

NOTE Confidence: 0.90774286

00:27:52.650 --> 00:27:53.860 let's get on with it.

NOTE Confidence: 0.90774286

00:27:53.860 --> 00:27:55.836 So I tried a different tack and I

NOTE Confidence: 0.90774286

00:27:55.836 --> 00:27:57.513 tried asking her can you tell me

NOTE Confidence: 0.90774286

00:27:57.513 --> 00:27:59.184 what was going on when you first

NOTE Confidence: 0.90774286

00:27:59.184 --> 00:28:00.878 got sick and she listed a litany

NOTE Confidence: 0.90774286

00:28:00.878 --> 00:28:02.088 of things that like shouldn't

NOTE Confidence: 0.90774286

00:28:02.088 --> 00:28:03.540 happen to people in a lifetime,

NOTE Confidence: 0.90774286

00:28:03.540 --> 00:28:05.468 let alone in the space of six months,

NOTE Confidence: 0.90774286

00:28:05.470 --> 00:28:06.760 which is really what happened.

NOTE Confidence: 0.90774286

00:28:06.760 --> 00:28:07.083 Her.

NOTE Confidence: 0.90774286

00:28:07.083 --> 00:28:09.667 So she was able to say that these

NOTE Confidence: 0.90774286

00:28:09.667 --> 00:28:12.056 happened around the time she got sick,

NOTE Confidence: 0.90774286

00:28:12.060 --> 00:28:13.776 but she hadn't really put them

NOTE Confidence: 0.90774286

00:28:13.776 --> 00:28:15.204 together as having anything to

NOTE Confidence: 0.90774286

00:28:15.204 --> 00:28:16.560 do with the onset of illness.

NOTE Confidence: 0.90774286

00:28:16.560 --> 00:28:17.890 If you like so I'm,

NOTE Confidence: 0.90774286

00:28:17.890 --> 00:28:19.210 you know, did family history.

NOTE Confidence: 0.90774286

00:28:19.210 --> 00:28:20.270 There's really nothing there,  
NOTE Confidence: 0.90774286

00:28:20.270 --> 00:28:21.396 so I'm, you know,  
NOTE Confidence: 0.90774286

00:28:21.396 --> 00:28:23.184 working with her with the family  
NOTE Confidence: 0.90774286

00:28:23.184 --> 00:28:24.916 history and with the Jar model  
NOTE Confidence: 0.90774286

00:28:24.916 --> 00:28:27.027 pictures that I showed you and I had  
NOTE Confidence: 0.90774286

00:28:27.027 --> 00:28:28.747 to work quite hard to get her to,  
NOTE Confidence: 0.90774286

00:28:28.750 --> 00:28:29.272 you know.  
NOTE Confidence: 0.90774286

00:28:29.272 --> 00:28:31.360 Latch on to the idea that it's not  
NOTE Confidence: 0.853916945454546

00:28:31.424 --> 00:28:33.167 just genetics and I had to try  
NOTE Confidence: 0.853916945454546

00:28:33.167 --> 00:28:34.869 a number of different ways,  
NOTE Confidence: 0.853916945454546

00:28:34.870 --> 00:28:36.340 and when I actually got there the  
NOTE Confidence: 0.853916945454546

00:28:36.340 --> 00:28:38.537 way I knew I got there was because I  
NOTE Confidence: 0.853916945454546

00:28:38.537 --> 00:28:39.827 literally watched the blood draining  
NOTE Confidence: 0.853916945454546

00:28:39.827 --> 00:28:41.888 out the bottom of her face in her eyes.  
NOTE Confidence: 0.853916945454546

00:28:41.890 --> 00:28:43.060 Kind of going like this,  
NOTE Confidence: 0.853916945454546

00:28:43.060 --> 00:28:45.166 and when I asked her what was going on,

NOTE Confidence: 0.853916945454546  
00:28:45.170 --> 00:28:47.987 she said. So you mean to tell me it's  
NOTE Confidence: 0.853916945454546  
00:28:47.987 --> 00:28:50.590 not just genetics and I was like?  
NOTE Confidence: 0.853916945454546  
00:28:50.590 --> 00:28:52.115 She was horrified Becausw she  
NOTE Confidence: 0.853916945454546  
00:28:52.115 --> 00:28:53.985 felt that because she you know  
NOTE Confidence: 0.853916945454546  
00:28:53.985 --> 00:28:55.415 she's already out at work,  
NOTE Confidence: 0.853916945454546  
00:28:55.420 --> 00:28:57.324 but she felt that people would judge  
NOTE Confidence: 0.853916945454546  
00:28:57.324 --> 00:28:59.195 her now like now she understood  
NOTE Confidence: 0.853916945454546  
00:28:59.195 --> 00:29:00.860 that it wasn't just genetics.  
NOTE Confidence: 0.853916945454546  
00:29:00.860 --> 00:29:01.988 She felt she would.  
NOTE Confidence: 0.853916945454546  
00:29:01.988 --> 00:29:04.076 You know people would see it as  
NOTE Confidence: 0.853916945454546  
00:29:04.076 --> 00:29:05.370 being more culpable, basically.  
NOTE Confidence: 0.853916945454546  
00:29:05.370 --> 00:29:07.610 Um, so thing I omitted to tell you  
NOTE Confidence: 0.853916945454546  
00:29:07.610 --> 00:29:09.769 was that she was there because she  
NOTE Confidence: 0.853916945454546  
00:29:09.769 --> 00:29:11.809 was terrified that her daughter was  
NOTE Confidence: 0.853916945454546  
00:29:11.809 --> 00:29:13.729 going to develop bipolar disorder.  
NOTE Confidence: 0.853916945454546

00:29:13.730 --> 00:29:15.470 In her words, any day now.  
NOTE Confidence: 0.853916945454546

00:29:15.470 --> 00:29:17.486 So she'd developed bipolar herself at 21.  
NOTE Confidence: 0.853916945454546

00:29:17.490 --> 00:29:18.940 Her daughter just turned 21,  
NOTE Confidence: 0.853916945454546

00:29:18.940 --> 00:29:22.496 so in her mind, it was inevitable.  
NOTE Confidence: 0.853916945454546

00:29:22.500 --> 00:29:24.831 So I worked with a really hard to talk  
NOTE Confidence: 0.853916945454546

00:29:24.831 --> 00:29:26.867 about how there might be more that,  
NOTE Confidence: 0.853916945454546

00:29:26.870 --> 00:29:28.648 you know she could do to protect  
NOTE Confidence: 0.853916945454546

00:29:28.648 --> 00:29:30.617 her own mental health if we accept  
NOTE Confidence: 0.853916945454546

00:29:30.617 --> 00:29:32.057 that it's not just genetics,  
NOTE Confidence: 0.853916945454546

00:29:32.060 --> 00:29:33.686 maybe there's more we can do.  
NOTE Confidence: 0.853916945454546

00:29:33.690 --> 00:29:34.322 Sleep, nutrition,  
NOTE Confidence: 0.853916945454546

00:29:34.322 --> 00:29:34.638 exercise,  
NOTE Confidence: 0.853916945454546

00:29:34.638 --> 00:29:36.534 good social support that stuff because  
NOTE Confidence: 0.853916945454546

00:29:36.534 --> 00:29:38.481 really all she was doing was taking  
NOTE Confidence: 0.853916945454546

00:29:38.481 --> 00:29:39.537 the psychotropic medication that  
NOTE Confidence: 0.853916945454546

00:29:39.583 --> 00:29:40.957 had been prescribed by her family

NOTE Confidence: 0.853916945454546  
00:29:40.957 --> 00:29:42.424 doctor when she was first diagnosed.  
NOTE Confidence: 0.853916945454546  
00:29:42.424 --> 00:29:43.784 She'd never had a psychiatrist,  
NOTE Confidence: 0.853916945454546  
00:29:43.790 --> 00:29:45.974 and I've tried to help her see that,  
NOTE Confidence: 0.853916945454546  
00:29:45.980 --> 00:29:48.100 you know.  
NOTE Confidence: 0.853916945454546  
00:29:48.100 --> 00:29:49.997 You know, if it's not all genetics,  
NOTE Confidence: 0.853916945454546  
00:29:50.000 --> 00:29:51.350 yay means your daughters, not.  
NOTE Confidence: 0.853916945454546  
00:29:51.350 --> 00:29:52.710 It's not a foregone conclusion,  
NOTE Confidence: 0.853916945454546  
00:29:52.710 --> 00:29:52.980 right?  
NOTE Confidence: 0.8869176  
00:29:55.120 --> 00:29:56.132 However, I wasn't really  
NOTE Confidence: 0.8869176  
00:29:56.132 --> 00:29:57.650 sure she heard any of that,  
NOTE Confidence: 0.8869176  
00:29:57.650 --> 00:29:59.168 and then it got even worse.  
NOTE Confidence: 0.8869176  
00:29:59.170 --> 00:29:59.962 So I got to.  
NOTE Confidence: 0.8869176  
00:29:59.962 --> 00:30:01.541 End of the session and she was  
NOTE Confidence: 0.8869176  
00:30:01.541 --> 00:30:03.545 participating in that same research study,  
NOTE Confidence: 0.8869176  
00:30:03.550 --> 00:30:05.170 so there was some questionnaires to  
NOTE Confidence: 0.8869176



00:30:05.170 --> 00:30:07.038 complete at the end and we prearranged

NOTE Confidence: 0.8869176

00:30:07.038 --> 00:30:08.753 that she would do that with one

NOTE Confidence: 0.8869176

00:30:08.810 --> 00:30:10.462 of the members of my research team

NOTE Confidence: 0.8869176

00:30:10.462 --> 00:30:12.186 because I had somewhere else to be.

NOTE Confidence: 0.8869176

00:30:12.186 --> 00:30:13.710 So I thank you for participating.

NOTE Confidence: 0.8869176

00:30:13.710 --> 00:30:16.120 I told her how nice it was to meet her

NOTE Confidence: 0.8869176

00:30:16.188 --> 00:30:18.658 and stuff and I had my hand on the door

NOTE Confidence: 0.8869176

00:30:18.729 --> 00:30:21.078 handle to get out and she said to me,

NOTE Confidence: 0.8869176

00:30:21.080 --> 00:30:21.992 the other thing is,

NOTE Confidence: 0.8869176

00:30:21.992 --> 00:30:23.360 if we known it was anything

NOTE Confidence: 0.8869176

00:30:23.414 --> 00:30:24.630 other than just genetics,

NOTE Confidence: 0.8869176

00:30:24.630 --> 00:30:26.100 we would have had more children

NOTE Confidence: 0.8869176

00:30:26.100 --> 00:30:27.430 and she burst into tears.

NOTE Confidence: 0.8869176

00:30:27.430 --> 00:30:30.286 So I tried to stay and talk to

NOTE Confidence: 0.8869176

00:30:30.286 --> 00:30:32.878 her about it and she did this.

NOTE Confidence: 0.8869176

00:30:32.880 --> 00:30:34.302 Again, reason she said anything was

NOTE Confidence: 0.8869176

00:30:34.302 --> 00:30:35.716 because she knew she didn't wasn't

NOTE Confidence: 0.8869176

00:30:35.716 --> 00:30:37.193 going to have to talk about it.

NOTE Confidence: 0.8869176

00:30:37.200 --> 00:30:37.968 Um, so yeah,

NOTE Confidence: 0.8869176

00:30:37.968 --> 00:30:39.760 you may be wondering why on Earth

NOTE Confidence: 0.8869176

00:30:39.825 --> 00:30:41.565 you telling us this horrible story

NOTE Confidence: 0.8869176

00:30:41.565 --> 00:30:43.400 like this isn't a good thing.

NOTE Confidence: 0.8869176

00:30:43.400 --> 00:30:43.671 Well,

NOTE Confidence: 0.8869176

00:30:43.671 --> 00:30:45.026 actually kind of is because

NOTE Confidence: 0.8869176

00:30:45.026 --> 00:30:46.745 within a couple of weeks Jane

NOTE Confidence: 0.8869176

00:30:46.745 --> 00:30:48.195 had actually changed her GP.

NOTE Confidence: 0.8869176

00:30:48.200 --> 00:30:50.168 the GP was working with her on ways

NOTE Confidence: 0.8869176

00:30:50.168 --> 00:30:52.083 to better manage her sleep apnea so

NOTE Confidence: 0.8869176

00:30:52.083 --> 00:30:53.839 that her sleep wasn't so disrupted

NOTE Confidence: 0.8869176

00:30:53.839 --> 00:30:55.807 to better manage her mood stuff.

NOTE Confidence: 0.8869176

00:30:55.810 --> 00:30:57.574 She had a psychiatrist for the first

NOTE Confidence: 0.8869176

00:30:57.574 --> 00:30:59.645 time who was helping her with trying  
NOTE Confidence: 0.8869176

00:30:59.645 --> 00:31:01.529 a new medication which already seemed  
NOTE Confidence: 0.8869176

00:31:01.588 --> 00:31:03.464 to be perhaps working better for the  
NOTE Confidence: 0.8869176

00:31:03.464 --> 00:31:05.378 higher than the other one had done.  
NOTE Confidence: 0.8869176

00:31:05.378 --> 00:31:07.040 She was taking control of our  
NOTE Confidence: 0.8869176

00:31:07.097 --> 00:31:08.847 own physical and mental health.  
NOTE Confidence: 0.8869176

00:31:08.850 --> 00:31:10.650 So she was working towards  
NOTE Confidence: 0.8869176

00:31:10.650 --> 00:31:12.090 eating and sleeping better,  
NOTE Confidence: 0.8869176

00:31:12.090 --> 00:31:14.400 but most excitingly to me she  
NOTE Confidence: 0.8869176

00:31:14.400 --> 00:31:16.546 signed up for mindfulness meditation  
NOTE Confidence: 0.8869176

00:31:16.546 --> 00:31:19.226 classes together with her daughter.  
NOTE Confidence: 0.8869176

00:31:19.230 --> 00:31:19.935 So and again,  
NOTE Confidence: 0.8869176

00:31:19.935 --> 00:31:21.907 she ended up in a place where her  
NOTE Confidence: 0.8869176

00:31:21.907 --> 00:31:23.272 mental health was much better  
NOTE Confidence: 0.8869176

00:31:23.272 --> 00:31:25.349 than it had been for her in years.  
NOTE Confidence: 0.8869176

00:31:25.350 --> 00:31:27.051 Ended up taking less time off the

NOTE Confidence: 0.8869176  
00:31:27.051 --> 00:31:28.668 job that she loved, blah blah,  
NOTE Confidence: 0.8869176  
00:31:28.668 --> 00:31:29.940 blah, blah, blah, right again.  
NOTE Confidence: 0.8869176  
00:31:29.940 --> 00:31:30.960 There's no genetic testing.  
NOTE Confidence: 0.8869176  
00:31:30.960 --> 00:31:32.235 There's that we're not talking  
NOTE Confidence: 0.8869176  
00:31:32.235 --> 00:31:32.745 about pregnancy,  
NOTE Confidence: 0.8869176  
00:31:32.750 --> 00:31:34.255 but this is the sort of impact  
NOTE Confidence: 0.8869176  
00:31:34.255 --> 00:31:35.573 that that genetic counseling can  
NOTE Confidence: 0.8869176  
00:31:35.573 --> 00:31:36.825 have in these environments.  
NOTE Confidence: 0.8869176  
00:31:36.830 --> 00:31:37.085 Sorry,  
NOTE Confidence: 0.8869176  
00:31:37.085 --> 00:31:38.615 I get so excited about talking  
NOTE Confidence: 0.8869176  
00:31:38.615 --> 00:31:39.380 about this stuff.  
NOTE Confidence: 0.8869176  
00:31:39.380 --> 00:31:40.655 I've actually gone on for  
NOTE Confidence: 0.8869176  
00:31:40.655 --> 00:31:41.930 longer than I intended to,  
NOTE Confidence: 0.8869176  
00:31:41.930 --> 00:31:44.216 so I'm gonna try and speed up a bit.  
NOTE Confidence: 0.8869176  
00:31:44.220 --> 00:31:44.856 Sorry bout that.  
NOTE Confidence: 0.8869176

00:31:44.856 --> 00:31:46.637 We are going to do a very quick  
NOTE Confidence: 0.8869176

00:31:46.637 --> 00:31:48.303 aside because I want to point out  
NOTE Confidence: 0.8869176

00:31:48.303 --> 00:31:49.759 that if you're paying attention  
NOTE Confidence: 0.8869176

00:31:49.759 --> 00:31:51.613 with both of these two stories,  
NOTE Confidence: 0.8869176

00:31:51.620 --> 00:31:53.396 what you will have no tist.  
NOTE Confidence: 0.8869176

00:31:53.400 --> 00:31:55.260 Is that people change their behavior  
NOTE Confidence: 0.8869176

00:31:55.260 --> 00:31:57.412 right in response to what we did  
NOTE Confidence: 0.8869176

00:31:57.412 --> 00:31:59.116 in terms of the genetic counseling.  
NOTE Confidence: 0.8869176

00:31:59.120 --> 00:32:00.872 Now behavior change to reduce the  
NOTE Confidence: 0.8869176

00:32:00.872 --> 00:32:02.379 risk of common complex conditions  
NOTE Confidence: 0.8869176

00:32:02.379 --> 00:32:04.353 is one of the like Golden grails  
NOTE Confidence: 0.8869176

00:32:04.353 --> 00:32:05.744 of genomic medicine, right?  
NOTE Confidence: 0.8869176

00:32:05.744 --> 00:32:08.176 This was a publication that came out in  
NOTE Confidence: 0.8869176

00:32:08.176 --> 00:32:10.858 The Lancet by Victor's Owl a few years ago,  
NOTE Confidence: 0.8869176

00:32:10.860 --> 00:32:12.372 now in which he talks about  
NOTE Confidence: 0.8869176

00:32:12.372 --> 00:32:14.181 how the US health care system

NOTE Confidence: 0.8869176  
00:32:14.181 --> 00:32:16.031 could save 600 billion dollars  
NOTE Confidence: 0.8869176  
00:32:16.031 --> 00:32:17.141 or something ridiculous  
NOTE Confidence: 0.8518258  
00:32:17.201 --> 00:32:18.376 in the next 50 years.  
NOTE Confidence: 0.8518258  
00:32:18.380 --> 00:32:20.501 If we could only help people to  
NOTE Confidence: 0.8518258  
00:32:20.501 --> 00:32:22.093 change their behavior to reduce  
NOTE Confidence: 0.8518258  
00:32:22.093 --> 00:32:23.638 their risk for heart disease  
NOTE Confidence: 0.8518258  
00:32:23.638 --> 00:32:25.429 by telling them how risk they.  
NOTE Confidence: 0.8518258  
00:32:25.430 --> 00:32:27.482 Up the risk they were at  
NOTE Confidence: 0.8518258  
00:32:27.482 --> 00:32:28.850 based on their genetics.  
NOTE Confidence: 0.8518258  
00:32:28.850 --> 00:32:30.560 Now this piece got slammed  
NOTE Confidence: 0.8518258  
00:32:30.560 --> 00:32:32.270 for a variety of reasons,  
NOTE Confidence: 0.8518258  
00:32:32.270 --> 00:32:34.755 but the point being that that this  
NOTE Confidence: 0.8518258  
00:32:34.755 --> 00:32:37.059 that that this is the the idea.  
NOTE Confidence: 0.8518258  
00:32:37.060 --> 00:32:39.106 The concept is is potentially real,  
NOTE Confidence: 0.8518258  
00:32:39.110 --> 00:32:41.301 that if we could help people to  
NOTE Confidence: 0.8518258

00:32:41.301 --> 00:32:43.298 change their behavior to reduce the  
NOTE Confidence: 0.8518258

00:32:43.298 --> 00:32:44.953 risk for common complex disease  
NOTE Confidence: 0.8518258

00:32:44.953 --> 00:32:46.980 like heart disease like diabetes,  
NOTE Confidence: 0.8518258

00:32:46.980 --> 00:32:48.456 like psychiatric disorders,  
NOTE Confidence: 0.8518258

00:32:48.456 --> 00:32:50.424 there's a potential for  
NOTE Confidence: 0.8518258

00:32:50.424 --> 00:32:51.900 enormous economic benefits.  
NOTE Confidence: 0.8518258

00:32:51.900 --> 00:32:52.174 However,  
NOTE Confidence: 0.8518258

00:32:52.174 --> 00:32:54.366 we know and I'm just flashing up a  
NOTE Confidence: 0.8518258

00:32:54.366 --> 00:32:56.370 bunch of studies here in culminating  
NOTE Confidence: 0.8518258

00:32:56.370 --> 00:32:58.045 with the Cochrane review that  
NOTE Confidence: 0.8518258

00:32:58.106 --> 00:32:59.921 genetic information does not get  
NOTE Confidence: 0.8518258

00:32:59.921 --> 00:33:01.736 people to change their behavior.  
NOTE Confidence: 0.8518258

00:33:01.740 --> 00:33:02.968 It just doesn't work.  
NOTE Confidence: 0.8518258

00:33:02.968 --> 00:33:06.144 So how on Earth am I having the gall to  
NOTE Confidence: 0.8518258

00:33:06.144 --> 00:33:09.279 sit in front of you this morning and say,  
NOTE Confidence: 0.8518258

00:33:09.280 --> 00:33:10.592 hey, our genetic counseling

NOTE Confidence: 0.8518258

00:33:10.592 --> 00:33:12.232 does though about like how?

NOTE Confidence: 0.8518258

00:33:12.240 --> 00:33:13.221 How can I?

NOTE Confidence: 0.8518258

00:33:13.221 --> 00:33:14.856 How can I say that?

NOTE Confidence: 0.8518258

00:33:14.860 --> 00:33:15.267 Well,

NOTE Confidence: 0.8518258

00:33:15.267 --> 00:33:18.116 genetic counseling is not the same as

NOTE Confidence: 0.8518258

00:33:18.116 --> 00:33:20.038 genetic information and to my mind

NOTE Confidence: 0.8518258

00:33:20.038 --> 00:33:21.987 if we want to help people change

NOTE Confidence: 0.8518258

00:33:21.987 --> 00:33:24.304 behavior we need to do two things.

NOTE Confidence: 0.8518258

00:33:24.310 --> 00:33:26.260 We need to embed the genetic

NOTE Confidence: 0.8518258

00:33:26.260 --> 00:33:28.165 information that we're providing in a

NOTE Confidence: 0.8518258

00:33:28.165 --> 00:33:29.797 coherent story of etiology that gives

NOTE Confidence: 0.8518258

00:33:29.797 --> 00:33:31.838 people a sense of control or agency.

NOTE Confidence: 0.8518258

00:33:31.840 --> 00:33:33.345 So if you imagine saying

NOTE Confidence: 0.8518258

00:33:33.345 --> 00:33:34.850 to somebody how you have,

NOTE Confidence: 0.8518258

00:33:34.850 --> 00:33:36.660 you know your your high

NOTE Confidence: 0.8518258



00:33:36.660 --> 00:33:38.108 genetic risk of diabetes.  
NOTE Confidence: 0.8518258

00:33:38.110 --> 00:33:39.958 So you need to change your behavior  
NOTE Confidence: 0.8518258

00:33:39.958 --> 00:33:41.669 like where's the connection there.  
NOTE Confidence: 0.8518258

00:33:41.670 --> 00:33:44.054 You just you know what people hear is  
NOTE Confidence: 0.8518258

00:33:44.054 --> 00:33:45.839 genetics equals foregone conclusion.  
NOTE Confidence: 0.8518258

00:33:45.840 --> 00:33:46.123 Right,  
NOTE Confidence: 0.8518258

00:33:46.123 --> 00:33:48.104 so we need to marry that with  
NOTE Confidence: 0.8518258

00:33:48.104 --> 00:33:50.086 the piece about like that's what  
NOTE Confidence: 0.8518258

00:33:50.086 --> 00:33:52.114 exactly what the jar model does.  
NOTE Confidence: 0.8518258

00:33:52.120 --> 00:33:53.690 It shows people that although  
NOTE Confidence: 0.8518258

00:33:53.690 --> 00:33:54.946 genetics is a component,  
NOTE Confidence: 0.8518258

00:33:54.950 --> 00:33:56.520 that doesn't mean you're doomed.  
NOTE Confidence: 0.8518258

00:33:56.520 --> 00:33:59.012 There's things you can do about this, right?  
NOTE Confidence: 0.8518258

00:33:59.012 --> 00:34:00.522 So that's giving people that  
NOTE Confidence: 0.8518258

00:34:00.522 --> 00:34:02.170 sense of control or agency,  
NOTE Confidence: 0.8518258

00:34:02.170 --> 00:34:03.154 and then Secondly,

NOTE Confidence: 0.8518258

00:34:03.154 --> 00:34:05.450 we need to address their emotions that

NOTE Confidence: 0.8518258

00:34:05.514 --> 00:34:07.818 can act as a barrier to behavior change,

NOTE Confidence: 0.8518258

00:34:07.820 --> 00:34:08.133 right?

NOTE Confidence: 0.8518258

00:34:08.133 --> 00:34:09.072 So, for Jane,

NOTE Confidence: 0.8518258

00:34:09.072 --> 00:34:11.270 that story I just shared with you,

NOTE Confidence: 0.8518258

00:34:11.270 --> 00:34:13.154 she had to confront all of

NOTE Confidence: 0.8518258

00:34:13.154 --> 00:34:14.096 that regret around.

NOTE Confidence: 0.8518258

00:34:14.100 --> 00:34:15.910 Not having had more children.

NOTE Confidence: 0.8518258

00:34:15.910 --> 00:34:16.130 Right,

NOTE Confidence: 0.8518258

00:34:16.130 --> 00:34:17.670 she held on so hard to this

NOTE Confidence: 0.8518258

00:34:17.670 --> 00:34:19.152 idea that her condition was

NOTE Confidence: 0.8518258

00:34:19.152 --> 00:34:20.468 caused entirely by genetics.

NOTE Confidence: 0.8518258

00:34:20.470 --> 00:34:21.988 Because it meant that she didn't

NOTE Confidence: 0.8518258

00:34:21.988 --> 00:34:23.410 have to feel that regret,

NOTE Confidence: 0.8518258

00:34:23.410 --> 00:34:24.887 but it was also acting as a

NOTE Confidence: 0.8518258

00:34:24.887 --> 00:34:26.416 barrier to her engaging in those  
NOTE Confidence: 0.8518258

00:34:26.416 --> 00:34:28.102 behaviors that were going to protect  
NOTE Confidence: 0.8518258

00:34:28.102 --> 00:34:29.849 a mental health going forward,  
NOTE Confidence: 0.8518258

00:34:29.850 --> 00:34:30.085 right?  
NOTE Confidence: 0.8518258

00:34:30.085 --> 00:34:32.561 So this is not stuff that you can just give  
NOTE Confidence: 0.8518258

00:34:32.561 --> 00:34:34.668 people information and expect it to work,  
NOTE Confidence: 0.8518258

00:34:34.670 --> 00:34:36.310 it doesn't.  
NOTE Confidence: 0.8518258

00:34:36.310 --> 00:34:36.974 So anyway,  
NOTE Confidence: 0.8518258

00:34:36.974 --> 00:34:38.966 that was a very brief aside,  
NOTE Confidence: 0.8518258

00:34:38.970 --> 00:34:41.294 let's get back to the main thrust  
NOTE Confidence: 0.8518258

00:34:41.294 --> 00:34:42.290 of things here,  
NOTE Confidence: 0.8518258

00:34:42.290 --> 00:34:43.950 so psychiatric genetic counseling is  
NOTE Confidence: 0.8518258

00:34:43.950 --> 00:34:45.610 something that hopefully I've illustrated,  
NOTE Confidence: 0.8518258

00:34:45.610 --> 00:34:47.874 is is something that can be applied to  
NOTE Confidence: 0.8518258

00:34:47.874 --> 00:34:49.918 anyone with any psychiatric disorder,  
NOTE Confidence: 0.8518258

00:34:49.920 --> 00:34:52.160 diagnosis and other family members.

NOTE Confidence: 0.8518258

00:34:52.160 --> 00:34:53.760 It's really all about psychotherapeutic

NOTE Confidence: 0.8518258

00:34:53.760 --> 00:34:55.695 Lee walking the final line between

NOTE Confidence: 0.8518258

00:34:55.695 --> 00:34:57.690 helping people see it's not your fault.

NOTE Confidence: 0.8518258

00:34:57.690 --> 00:34:59.520 You know it's not your fault

NOTE Confidence: 0.8518258

00:34:59.520 --> 00:35:00.740 even if you smoked

NOTE Confidence: 0.8587487

00:35:00.810 --> 00:35:03.152 a ton of cannabis, still not your fault,

NOTE Confidence: 0.8587487

00:35:03.152 --> 00:35:05.607 but there are things that you can do

NOTE Confidence: 0.8587487

00:35:05.607 --> 00:35:07.503 to better protect your mental health.

NOTE Confidence: 0.8587487

00:35:07.510 --> 00:35:09.050 Perhaps for the future, right?

NOTE Confidence: 0.8587487

00:35:09.050 --> 00:35:10.580 So that's a fine line,

NOTE Confidence: 0.8587487

00:35:10.580 --> 00:35:12.828 but it's walkable and I'm going to share

NOTE Confidence: 0.8587487

00:35:12.828 --> 00:35:15.237 data with you in a second to demonstrate

NOTE Confidence: 0.8587487

00:35:15.237 --> 00:35:17.330 that so it's impactful for recipients.

NOTE Confidence: 0.8587487

00:35:17.330 --> 00:35:19.178 And as you can probably tell,

NOTE Confidence: 0.8587487

00:35:19.180 --> 00:35:20.710 I kind of love it,

NOTE Confidence: 0.8587487

00:35:20.710 --> 00:35:22.690 so it's extremely rewarding from the.  
NOTE Confidence: 0.8587487

00:35:22.690 --> 00:35:24.598 From there, it's from the therapists  
NOTE Confidence: 0.8587487

00:35:24.598 --> 00:35:25.552 or clinicians perspective,  
NOTE Confidence: 0.8587487

00:35:25.560 --> 00:35:27.150 so let's talk a little  
NOTE Confidence: 0.8587487

00:35:27.150 --> 00:35:28.422 bit about the outcomes.  
NOTE Confidence: 0.8587487

00:35:28.430 --> 00:35:29.066 Because yes,  
NOTE Confidence: 0.8587487

00:35:29.066 --> 00:35:31.292 I've shared with you some case studies,  
NOTE Confidence: 0.8587487

00:35:31.300 --> 00:35:33.220 but if you're anything like me,  
NOTE Confidence: 0.8587487

00:35:33.220 --> 00:35:34.810 you'll be going like yes,  
NOTE Confidence: 0.8587487

00:35:34.810 --> 00:35:36.730 but anecdotes or not, the data,  
NOTE Confidence: 0.8587487

00:35:36.730 --> 00:35:38.956 so telling how it actually effects outcomes.  
NOTE Confidence: 0.8587487

00:35:38.960 --> 00:35:40.232 Great, let's do that.  
NOTE Confidence: 0.8587487

00:35:40.232 --> 00:35:42.470 So, as you heard at the beginning,  
NOTE Confidence: 0.8587487

00:35:42.470 --> 00:35:44.426 we actually found it the world's  
NOTE Confidence: 0.8587487

00:35:44.426 --> 00:35:45.730 first specialist psychiatric genetic  
NOTE Confidence: 0.8587487

00:35:45.783 --> 00:35:47.248 counseling clinic here in 2012,

NOTE Confidence: 0.8587487

00:35:47.250 --> 00:35:50.440 and we didn't just pull it out of thin air.

NOTE Confidence: 0.8587487

00:35:50.440 --> 00:35:51.748 I've actually been studying

NOTE Confidence: 0.8587487

00:35:51.748 --> 00:35:53.710 whether or not this could be.

NOTE Confidence: 0.8587487

00:35:53.710 --> 00:35:55.295 Something helpful for people for

NOTE Confidence: 0.8587487

00:35:55.295 --> 00:35:57.600 God with 20 years at this point,

NOTE Confidence: 0.8587487

00:35:57.600 --> 00:35:59.538 which is quite terrifying to realize.

NOTE Confidence: 0.8587487

00:35:59.540 --> 00:36:00.208 But yes,

NOTE Confidence: 0.8587487

00:36:00.208 --> 00:36:02.212 so anyway we we established this

NOTE Confidence: 0.8587487

00:36:02.212 --> 00:36:04.465 clinic based on a body of research

NOTE Confidence: 0.8587487

00:36:04.465 --> 00:36:06.670 data that we generated over the years.

NOTE Confidence: 0.8587487

00:36:06.670 --> 00:36:08.608 The first thing was you know.

NOTE Confidence: 0.8587487

00:36:08.610 --> 00:36:08.856 Well,

NOTE Confidence: 0.8587487

00:36:08.856 --> 00:36:10.332 actually on the first thing we

NOTE Confidence: 0.8587487

00:36:10.332 --> 00:36:11.933 did was study whether people

NOTE Confidence: 0.8587487

00:36:11.933 --> 00:36:13.553 interested in genetic counseling

NOTE Confidence: 0.8587487

00:36:13.553 --> 00:36:14.768 for psychiatric disorders.

NOTE Confidence: 0.8587487

00:36:14.770 --> 00:36:17.136 They were then we looked at our

NOTE Confidence: 0.8587487

00:36:17.136 --> 00:36:18.888 existing clinical genetics service to

NOTE Confidence: 0.8587487

00:36:18.888 --> 00:36:20.916 see whether people were being referred

NOTE Confidence: 0.8587487

00:36:20.916 --> 00:36:23.515 and that blue one that you can see there.

NOTE Confidence: 0.8587487

00:36:23.520 --> 00:36:25.596 Basically The upshot of that was.

NOTE Confidence: 0.8587487

00:36:25.600 --> 00:36:27.546 To say that they're not being referred

NOTE Confidence: 0.8587487

00:36:27.546 --> 00:36:29.250 to existing general genetics clinics,

NOTE Confidence: 0.8587487

00:36:29.250 --> 00:36:31.394 we found that in 40 years of service

NOTE Confidence: 0.8587487

00:36:31.394 --> 00:36:33.087 this program had only seen 288

NOTE Confidence: 0.8587487

00:36:33.087 --> 00:36:34.731 people with either a personal or

NOTE Confidence: 0.8587487

00:36:34.786 --> 00:36:36.538 family history of schizophrenia,

NOTE Confidence: 0.8587487

00:36:36.540 --> 00:36:38.060 which obviously is like saying

NOTE Confidence: 0.8587487

00:36:38.060 --> 00:36:39.580 we've essentially seen no one.

NOTE Confidence: 0.8587487

00:36:39.580 --> 00:36:40.796 So yeah, so OK.

NOTE Confidence: 0.8587487

00:36:40.796 --> 00:36:41.100 So,

NOTE Confidence: 0.8587487

00:36:41.100 --> 00:36:42.610 given that people are interested

NOTE Confidence: 0.8587487

00:36:42.610 --> 00:36:44.120 and they're not being referred

NOTE Confidence: 0.8587487

00:36:44.172 --> 00:36:45.657 to the existing general clinic,

NOTE Confidence: 0.8587487

00:36:45.660 --> 00:36:47.418 what about if we provide it

NOTE Confidence: 0.8587487

00:36:47.418 --> 00:36:49.010 on a specialist basic basis?

NOTE Confidence: 0.8587487

00:36:49.010 --> 00:36:50.226 Can it be helpful?

NOTE Confidence: 0.8587487

00:36:50.226 --> 00:36:52.050 So what you're looking at here,

NOTE Confidence: 0.8587487

00:36:52.050 --> 00:36:54.283 top left is just the very first

NOTE Confidence: 0.8587487

00:36:54.283 --> 00:36:56.419 tiny little pilot study that I did.

NOTE Confidence: 0.8587487

00:36:56.420 --> 00:36:58.394 Choose one of these things that you

NOTE Confidence: 0.8587487

00:36:58.394 --> 00:37:00.656 look back on and kind of go on good,

NOTE Confidence: 0.8587487

00:37:00.660 --> 00:37:01.190 you know,

NOTE Confidence: 0.8587487

00:37:01.190 --> 00:37:03.045 because it was literally just me provide.

NOTE Confidence: 0.8587487

00:37:03.050 --> 00:37:04.586 We didn't have any funding like

NOTE Confidence: 0.8587487

00:37:04.586 --> 00:37:06.490 I was fresh out of grad school.

NOTE Confidence: 0.8587487



00:37:06.490 --> 00:37:08.152 This was literally just me providing  
NOTE Confidence: 0.8587487

00:37:08.152 --> 00:37:09.939 genetic counseling for people and then going.  
NOTE Confidence: 0.8587487

00:37:09.940 --> 00:37:12.130 How was that?  
NOTE Confidence: 0.8587487

00:37:12.130 --> 00:37:14.167 Nobody had done anything like that before,  
NOTE Confidence: 0.8587487

00:37:14.170 --> 00:37:15.338 and so it was.  
NOTE Confidence: 0.8587487

00:37:15.338 --> 00:37:16.506 It actually got published.  
NOTE Confidence: 0.8587487

00:37:16.510 --> 00:37:18.784 Since then, you'll be delighted to  
NOTE Confidence: 0.8587487

00:37:18.784 --> 00:37:21.608 know we've done some high quality work.  
NOTE Confidence: 0.8587487

00:37:21.610 --> 00:37:23.692 So we did some qualitative work  
NOTE Confidence: 0.8587487

00:37:23.692 --> 00:37:25.080 looking because people said,  
NOTE Confidence: 0.8587487

00:37:25.080 --> 00:37:25.426 well,  
NOTE Confidence: 0.8587487

00:37:25.426 --> 00:37:28.194 what can you really say to people anyway?  
NOTE Confidence: 0.8587487

00:37:28.200 --> 00:37:30.288 You can't tell him anything definitive.  
NOTE Confidence: 0.8587487

00:37:30.290 --> 00:37:31.674 There's so much unknown,  
NOTE Confidence: 0.8587487

00:37:31.674 --> 00:37:33.404 so we studied Clock qualitatively.  
NOTE Confidence: 0.8587487

00:37:33.410 --> 00:37:35.748 How people responded to that and they

NOTE Confidence: 0.8587487

00:37:35.748 --> 00:37:38.268 completely get it found it really helpful.

NOTE Confidence: 0.8587487

00:37:38.270 --> 00:37:38.602 Anyway,

NOTE Confidence: 0.8587487

00:37:38.602 --> 00:37:40.262 we looked at how people

NOTE Confidence: 0.8587487

00:37:40.262 --> 00:37:41.590 respond to risk estimation

NOTE Confidence: 0.8338598

00:37:41.648 --> 00:37:43.433 in the context of psychiatric

NOTE Confidence: 0.8338598

00:37:43.433 --> 00:37:44.504 disorders and fight.

NOTE Confidence: 0.8338598

00:37:44.510 --> 00:37:46.035 It's all culminated really with

NOTE Confidence: 0.8338598

00:37:46.035 --> 00:37:47.560 a randomized control trial of

NOTE Confidence: 0.8338598

00:37:47.610 --> 00:37:49.162 psychiatric genetic counseling for

NOTE Confidence: 0.8338598

00:37:49.162 --> 00:37:51.102 that for people with schizophrenia,

NOTE Confidence: 0.8338598

00:37:51.110 --> 00:37:53.060 bipolar and schizoaffective which showed.

NOTE Confidence: 0.8338598

00:37:53.060 --> 00:37:54.116 But yes, there were.

NOTE Confidence: 0.8338598

00:37:54.116 --> 00:37:55.700 There were some really important and

NOTE Confidence: 0.8338598

00:37:55.753 --> 00:37:57.608 meaningful positive outcomes for people,

NOTE Confidence: 0.8338598

00:37:57.610 --> 00:37:59.068 so that was really the data

NOTE Confidence: 0.8338598

00:37:59.068 --> 00:38:01.240 that we used as a basis for  
NOTE Confidence: 0.8338598

00:38:01.240 --> 00:38:02.760 establishing our specialist clinic.  
NOTE Confidence: 0.8338598

00:38:02.760 --> 00:38:03.968 It's a provincial service.  
NOTE Confidence: 0.8338598

00:38:03.968 --> 00:38:05.478 We've currently got 1.3 FT.  
NOTE Confidence: 0.8338598

00:38:05.480 --> 00:38:06.832 Es of genetic counselors.  
NOTE Confidence: 0.8338598

00:38:06.832 --> 00:38:08.184 They're embedded within the  
NOTE Confidence: 0.8338598

00:38:08.184 --> 00:38:09.691 general genetics clinic and we  
NOTE Confidence: 0.8338598

00:38:09.691 --> 00:38:11.239 provide service for men and women,  
NOTE Confidence: 0.8338598

00:38:11.240 --> 00:38:11.812 because, again,  
NOTE Confidence: 0.8338598

00:38:11.812 --> 00:38:13.528 people still think that this is  
NOTE Confidence: 0.8338598

00:38:13.528 --> 00:38:15.180 just all for pregnant ladies.  
NOTE Confidence: 0.8338598

00:38:15.180 --> 00:38:18.200 It's not Bob, for example.  
NOTE Confidence: 0.8338598

00:38:18.200 --> 00:38:20.132 For for any personal family history  
NOTE Confidence: 0.8338598

00:38:20.132 --> 00:38:22.040 of any psychiatric disorders and when  
NOTE Confidence: 0.8338598

00:38:22.040 --> 00:38:23.738 I'm doing grand rounds in Vancouver,  
NOTE Confidence: 0.8338598

00:38:23.740 --> 00:38:25.280 I get lots of questions.

NOTE Confidence: 0.8338598

00:38:25.280 --> 00:38:27.744 Like you know, we play a game like?

NOTE Confidence: 0.8338598

00:38:27.750 --> 00:38:28.982 What about eating disorders?

NOTE Confidence: 0.8338598

00:38:28.982 --> 00:38:29.906 Yes, eating disorders.

NOTE Confidence: 0.8338598

00:38:29.906 --> 00:38:31.756 What about oh CD, yes, OK.

NOTE Confidence: 0.8338598

00:38:31.756 --> 00:38:32.372 Oh CD,

NOTE Confidence: 0.8338598

00:38:32.372 --> 00:38:34.220 what about trichotillomania you know so?

NOTE Confidence: 0.8338598

00:38:34.220 --> 00:38:36.348 So yes we will see any psychiatric

NOTE Confidence: 0.8338598

00:38:36.348 --> 00:38:38.985 diagnosis and we we we accept self and

NOTE Confidence: 0.8338598

00:38:38.985 --> 00:38:40.650 health care provider referrals are

NOTE Confidence: 0.8338598

00:38:40.718 --> 00:38:42.910 appointments tend to be about 1 to 2

NOTE Confidence: 0.8338598

00:38:42.910 --> 00:38:45.609 hours and we do a one month post appointment.

NOTE Confidence: 0.8338598

00:38:45.610 --> 00:38:47.830 Follow up with people and typically.

NOTE Confidence: 0.8338598

00:38:47.830 --> 00:38:48.990 There isn't any genetic testing

NOTE Confidence: 0.8338598

00:38:48.990 --> 00:38:50.154 that we provide, you know,

NOTE Confidence: 0.8338598

00:38:50.154 --> 00:38:51.546 unless it looks like somebody's family

NOTE Confidence: 0.8338598

00:38:51.546 --> 00:38:52.958 history is 22 kewish or something.  
NOTE Confidence: 0.8338598

00:38:52.960 --> 00:38:54.175 In which case,  
NOTE Confidence: 0.8338598

00:38:54.175 --> 00:38:55.795 of course we do.  
NOTE Confidence: 0.8338598

00:38:55.800 --> 00:38:57.970 So we've actually evaluated the outcomes of,  
NOTE Confidence: 0.8338598

00:38:57.970 --> 00:38:58.590 you know,  
NOTE Confidence: 0.8338598

00:38:58.590 --> 00:39:01.070 in the real world clinical kind of setting,  
NOTE Confidence: 0.8338598

00:39:01.070 --> 00:39:02.930 and so this is the very  
NOTE Confidence: 0.8338598

00:39:02.930 --> 00:39:03.860 first publication from.  
NOTE Confidence: 0.8338598

00:39:03.860 --> 00:39:05.722 It's just reporting on the data from  
NOTE Confidence: 0.8338598

00:39:05.722 --> 00:39:07.668 the first year of their clinical  
NOTE Confidence: 0.8338598

00:39:07.668 --> 00:39:09.128 out clinical study essentially,  
NOTE Confidence: 0.8338598

00:39:09.130 --> 00:39:11.279 and this is the sort of high  
NOTE Confidence: 0.8338598

00:39:11.279 --> 00:39:12.850 level what did we find?  
NOTE Confidence: 0.8338598

00:39:12.850 --> 00:39:14.400 So basically we looked at  
NOTE Confidence: 0.8338598

00:39:14.400 --> 00:39:15.640 empowerment and self efficacy,  
NOTE Confidence: 0.8338598

00:39:15.640 --> 00:39:16.880 and we found statistically

NOTE Confidence: 0.8338598  
00:39:16.880 --> 00:39:17.500 significant increases.  
NOTE Confidence: 0.8338598  
00:39:17.500 --> 00:39:19.050 But as you all know,  
NOTE Confidence: 0.8338598  
00:39:19.050 --> 00:39:21.220 we have a big enough sample size.  
NOTE Confidence: 0.8338598  
00:39:21.220 --> 00:39:22.770 You can make any tiny,  
NOTE Confidence: 0.8338598  
00:39:22.770 --> 00:39:23.390 useless, meaningless,  
NOTE Confidence: 0.8338598  
00:39:23.390 --> 00:39:23.700 different,  
NOTE Confidence: 0.8338598  
00:39:23.700 --> 00:39:24.320 statistically significant.  
NOTE Confidence: 0.8338598  
00:39:24.320 --> 00:39:26.060 So what I'm more interested in  
NOTE Confidence: 0.8338598  
00:39:26.060 --> 00:39:27.627 here is actually the devalues  
NOTE Confidence: 0.8338598  
00:39:27.627 --> 00:39:29.679 which relate to effect size like.  
NOTE Confidence: 0.8338598  
00:39:29.680 --> 00:39:31.245 Is the difference that you're  
NOTE Confidence: 0.8338598  
00:39:31.245 --> 00:39:32.497 making actually meaningful at  
NOTE Confidence: 0.8338598  
00:39:32.497 --> 00:39:34.158 the clinical level to anybody,  
NOTE Confidence: 0.8338598  
00:39:34.160 --> 00:39:35.550 and an approximation is that  
NOTE Confidence: 0.8338598  
00:39:35.550 --> 00:39:37.819 the value of around .5 ISH is  
NOTE Confidence: 0.8338598

00:39:37.819 --> 00:39:38.637 clinically significant?  
NOTE Confidence: 0.8338598

00:39:38.640 --> 00:39:40.380 Actually didn't know that devalues  
NOTE Confidence: 0.8338598

00:39:40.380 --> 00:39:43.436 came as big as one I had to Google it.  
NOTE Confidence: 0.8181698

00:39:45.600 --> 00:39:47.106 So basically an actually in a  
NOTE Confidence: 0.8181698

00:39:47.106 --> 00:39:48.487 more recent studies or devalues  
NOTE Confidence: 0.8181698

00:39:48.487 --> 00:39:50.097 for empowerment or even bigger.  
NOTE Confidence: 0.8181698

00:39:50.100 --> 00:39:51.792 It's, you know, with the larger  
NOTE Confidence: 0.8181698

00:39:51.792 --> 00:39:53.469 sample sizes that we have now,  
NOTE Confidence: 0.8181698

00:39:53.470 --> 00:39:55.800 it's actually 1.2. So yes,  
NOTE Confidence: 0.8181698

00:39:55.800 --> 00:39:58.074 we are making a substantive difference  
NOTE Confidence: 0.8181698

00:39:58.074 --> 00:40:00.319 to empowerment and let's just marry.  
NOTE Confidence: 0.8181698

00:40:00.320 --> 00:40:02.336 That back to what we were just talking  
NOTE Confidence: 0.8181698

00:40:02.336 --> 00:40:04.238 about in terms of behavior change.  
NOTE Confidence: 0.8181698

00:40:04.240 --> 00:40:06.102 If you want people to change their  
NOTE Confidence: 0.8181698

00:40:06.102 --> 00:40:07.600 behavior to protect their health,  
NOTE Confidence: 0.8181698

00:40:07.600 --> 00:40:09.280 they need to be empowered, right?

NOTE Confidence: 0.8181698

00:40:09.280 --> 00:40:10.120 That's a necessity.

NOTE Confidence: 0.8181698

00:40:10.120 --> 00:40:11.785 It's a prerequisite. If you like.

NOTE Confidence: 0.8181698

00:40:11.785 --> 00:40:13.160 And so we're demonstrating that

NOTE Confidence: 0.8181698

00:40:13.160 --> 00:40:14.598 we're doing that really well.

NOTE Confidence: 0.8181698

00:40:14.600 --> 00:40:16.280 Essentially, an at the individual level.

NOTE Confidence: 0.8181698

00:40:16.280 --> 00:40:17.680 86% of people are showing

NOTE Confidence: 0.8181698

00:40:17.680 --> 00:40:18.520 improvement in schools,

NOTE Confidence: 0.8181698

00:40:18.520 --> 00:40:21.830 which is also really cool, I think.

NOTE Confidence: 0.8181698

00:40:21.830 --> 00:40:23.580 We've been because we've got

NOTE Confidence: 0.8181698

00:40:23.580 --> 00:40:25.330 like outcome assessment built in.

NOTE Confidence: 0.8181698

00:40:25.330 --> 00:40:27.787 We've been able to study a whole

NOTE Confidence: 0.8181698

00:40:27.787 --> 00:40:29.878 bunch of different things to see,

NOTE Confidence: 0.8181698

00:40:29.880 --> 00:40:31.980 like what correlates with with outcomes.

NOTE Confidence: 0.8181698

00:40:31.980 --> 00:40:33.380 Essentially, we've got no

NOTE Confidence: 0.8181698

00:40:33.380 --> 00:40:34.780 relationship between patient outcomes,

NOTE Confidence: 0.8181698



00:40:34.780 --> 00:40:36.530 an age, sex, ethnicity, psych,  
NOTE Confidence: 0.8181698

00:40:36.530 --> 00:40:36.880 diagnosis,  
NOTE Confidence: 0.8181698

00:40:36.880 --> 00:40:39.330 which I think is all really encouraging.  
NOTE Confidence: 0.8181698

00:40:39.330 --> 00:40:41.430 It means it works for everyone.  
NOTE Confidence: 0.8181698

00:40:41.430 --> 00:40:43.607 We've got no difference in terms of  
NOTE Confidence: 0.8181698

00:40:43.607 --> 00:40:45.760 outcomes in for whether people are  
NOTE Confidence: 0.8181698

00:40:45.760 --> 00:40:48.076 self or health care provider referred,  
NOTE Confidence: 0.8181698

00:40:48.080 --> 00:40:49.480 whether it's an individual  
NOTE Confidence: 0.8181698

00:40:49.480 --> 00:40:50.530 or family appointment,  
NOTE Confidence: 0.8181698

00:40:50.530 --> 00:40:53.330 or whether a train near observer is involved,  
NOTE Confidence: 0.8181698

00:40:53.330 --> 00:40:53.697 so.  
NOTE Confidence: 0.8181698

00:40:53.697 --> 00:40:55.899 That's also really reassuring for our  
NOTE Confidence: 0.8181698

00:40:55.899 --> 00:40:58.108 trainees because they get anxious about.  
NOTE Confidence: 0.8181698

00:40:58.110 --> 00:40:59.518 Well if I'm there.  
NOTE Confidence: 0.8181698

00:40:59.518 --> 00:41:01.630 Is that gonna make it look?  
NOTE Confidence: 0.8181698

00:41:01.630 --> 00:41:01.982 No?

NOTE Confidence: 0.8181698

00:41:01.982 --> 00:41:03.390 It's fine like, yeah,

NOTE Confidence: 0.8181698

00:41:03.390 --> 00:41:05.854 we've got data to demonstrate that now.

NOTE Confidence: 0.8181698

00:41:05.860 --> 00:41:06.252 However,

NOTE Confidence: 0.8181698

00:41:06.252 --> 00:41:08.212 there is a significant relationship

NOTE Confidence: 0.8181698

00:41:08.212 --> 00:41:09.780 between patient outcomes and

NOTE Confidence: 0.8181698

00:41:09.838 --> 00:41:11.290 baseline empowerment score.

NOTE Confidence: 0.8181698

00:41:11.290 --> 00:41:13.230 Which is kind of interesting.

NOTE Confidence: 0.8181698

00:41:13.230 --> 00:41:15.160 So and I wasn't necessarily

NOTE Confidence: 0.8181698

00:41:15.160 --> 00:41:16.704 expecting to find that,

NOTE Confidence: 0.8181698

00:41:16.710 --> 00:41:18.640 so we just published that.

NOTE Confidence: 0.8181698

00:41:18.640 --> 00:41:20.968 Just can say earlier this year,

NOTE Confidence: 0.8181698

00:41:20.970 --> 00:41:22.900 but it's 2021 now, right?

NOTE Confidence: 0.8181698

00:41:22.900 --> 00:41:25.385 So last year it's in the European

NOTE Confidence: 0.8181698

00:41:25.385 --> 00:41:27.160 Journal of Human Genetics.

NOTE Confidence: 0.8181698

00:41:27.160 --> 00:41:27.838 I think.

NOTE Confidence: 0.8181698

00:41:27.838 --> 00:41:30.211 Basically what we're showing is a linear  
NOTE Confidence: 0.8181698

00:41:30.211 --> 00:41:32.188 relationship between baseline empowerment,  
NOTE Confidence: 0.8181698

00:41:32.190 --> 00:41:34.703 score and the degree to which empowerment  
NOTE Confidence: 0.8181698

00:41:34.703 --> 00:41:36.450 increases after genetic counseling.  
NOTE Confidence: 0.8181698

00:41:36.450 --> 00:41:38.380 So people who have lower  
NOTE Confidence: 0.8181698

00:41:38.380 --> 00:41:39.924 scores have greater increases.  
NOTE Confidence: 0.8181698

00:41:39.930 --> 00:41:41.430 OK, which is.  
NOTE Confidence: 0.8181698

00:41:41.430 --> 00:41:43.930 Kind of an interesting observation.  
NOTE Confidence: 0.8181698

00:41:43.930 --> 00:41:46.216 So we've also been looking at  
NOTE Confidence: 0.8181698

00:41:46.216 --> 00:41:47.359 whether genetic counseling  
NOTE Confidence: 0.8181698

00:41:47.359 --> 00:41:49.020 impact treatment adherence.  
NOTE Confidence: 0.8181698

00:41:49.020 --> 00:41:51.220 We've just literally just published  
NOTE Confidence: 0.8181698

00:41:51.220 --> 00:41:54.530 that like at the end of last year,  
NOTE Confidence: 0.8181698

00:41:54.530 --> 00:41:56.798 and so we've got some very  
NOTE Confidence: 0.8181698

00:41:56.798 --> 00:41:57.932 preliminary suggestion that  
NOTE Confidence: 0.8181698

00:41:57.932 --> 00:41:59.819 perhaps genetic counseling might

NOTE Confidence: 0.8181698

00:41:59.819 --> 00:42:01.739 actually impact mental health,

NOTE Confidence: 0.8181698

00:42:01.740 --> 00:42:03.288 which is really interesting.

NOTE Confidence: 0.8181698

00:42:03.288 --> 00:42:05.223 We've got some data showing

NOTE Confidence: 0.8181698

00:42:05.223 --> 00:42:07.526 that people do report behavior

NOTE Confidence: 0.8181698

00:42:07.526 --> 00:42:09.370 change after genetic counseling,

NOTE Confidence: 0.8181698

00:42:09.370 --> 00:42:12.070 so engaging more in self management

NOTE Confidence: 0.8181698

00:42:12.070 --> 00:42:14.619 strategies and that sort of thing.

NOTE Confidence: 0.8181698

00:42:14.620 --> 00:42:16.438 And actually that paper's not here.

NOTE Confidence: 0.8181698

00:42:16.440 --> 00:42:17.950 That's a maca, ET al.

NOTE Confidence: 0.8181698

00:42:17.950 --> 00:42:18.542 From 2019,

NOTE Confidence: 0.8181698

00:42:18.542 --> 00:42:20.318 I think we've looked at whether

NOTE Confidence: 0.8181698

00:42:20.318 --> 00:42:21.879 various aspects of the genetic

NOTE Confidence: 0.8181698

00:42:21.879 --> 00:42:23.409 counseling session relate to him,

NOTE Confidence: 0.8181698

00:42:23.410 --> 00:42:24.860 like timing your family history

NOTE Confidence: 0.8181698

00:42:24.860 --> 00:42:27.306 if we take it on the phone before

NOTE Confidence: 0.8181698

00:42:27.306 --> 00:42:29.469 somebody comes in to meet with us,  
NOTE Confidence: 0.8181698

00:42:29.470 --> 00:42:31.591 versus we do it at the beginning  
NOTE Confidence: 0.8181698

00:42:31.591 --> 00:42:33.421 of the session. What impacts out?  
NOTE Confidence: 0.8181698

00:42:33.421 --> 00:42:35.263 So basically what we found is  
NOTE Confidence: 0.8181698

00:42:35.263 --> 00:42:37.347 if we do it before the session,  
NOTE Confidence: 0.8181698

00:42:37.350 --> 00:42:39.422 and I've got all sorts of rationale  
NOTE Confidence: 0.8181698

00:42:39.422 --> 00:42:40.671 why or interpretation hypothesis  
NOTE Confidence: 0.8181698

00:42:40.671 --> 00:42:42.186 about why this might be.  
NOTE Confidence: 0.8199638

00:42:42.190 --> 00:42:44.199 But basically, if we do genetic counseling  
NOTE Confidence: 0.8199638

00:42:44.199 --> 00:42:46.745 before we meet with the person for the  
NOTE Confidence: 0.8199638

00:42:46.745 --> 00:42:48.045 actual genetic counseling session.  
NOTE Confidence: 0.8199638

00:42:48.050 --> 00:42:49.490 We get better outcomes for them  
NOTE Confidence: 0.8199638

00:42:49.490 --> 00:42:51.567 than if we do it just with them  
NOTE Confidence: 0.8199638

00:42:51.567 --> 00:42:53.163 at the beginning of the session.  
NOTE Confidence: 0.8199638

00:42:53.170 --> 00:42:54.892 We've studied the type of room in  
NOTE Confidence: 0.8199638

00:42:54.892 --> 00:42:56.269 which the counseling is conducted.

NOTE Confidence: 0.8199638

00:42:56.270 --> 00:42:58.310 You know, because we embedded within

NOTE Confidence: 0.8199638

00:42:58.310 --> 00:43:00.031 a clinical genetics Department some

NOTE Confidence: 0.8199638

00:43:00.031 --> 00:43:01.885 of our interview rooms literally have

NOTE Confidence: 0.8199638

00:43:01.885 --> 00:43:03.580 beds with stirrups in the corner.

NOTE Confidence: 0.8199638

00:43:03.580 --> 00:43:04.201 Where is that?

NOTE Confidence: 0.8199638

00:43:04.201 --> 00:43:05.650 We do have a couple of actually

NOTE Confidence: 0.8199638

00:43:05.704 --> 00:43:06.968 nice comfy counseling rooms,

NOTE Confidence: 0.8199638

00:43:06.970 --> 00:43:08.898 and so we were actually able to study.

NOTE Confidence: 0.8199638

00:43:08.900 --> 00:43:10.358 Do we get any? We don't.

NOTE Confidence: 0.8199638

00:43:10.360 --> 00:43:12.047 Sadly I was very sad about that.

NOTE Confidence: 0.8199638

00:43:12.050 --> 00:43:13.895 It would have been nice if we had a

NOTE Confidence: 0.8199638

00:43:13.895 --> 00:43:15.586 rationale for arguing for nice comfy

NOTE Confidence: 0.8199638

00:43:15.586 --> 00:43:17.700 counseling rooms, but here you go.

NOTE Confidence: 0.8199638

00:43:17.700 --> 00:43:20.010 That's the reality of research people.

NOTE Confidence: 0.8199638

00:43:20.010 --> 00:43:21.774 And then another thing we studied

NOTE Confidence: 0.8199638

00:43:21.774 --> 00:43:22.950 was because we write.  
NOTE Confidence: 0.8199638

00:43:22.950 --> 00:43:24.708 OK, this is an important point.  
NOTE Confidence: 0.8199638

00:43:24.710 --> 00:43:24.974 Actually,  
NOTE Confidence: 0.8199638

00:43:24.974 --> 00:43:27.086 I think people tend to assume that if  
NOTE Confidence: 0.8199638

00:43:27.086 --> 00:43:28.828 you're going for genetic counseling,  
NOTE Confidence: 0.8199638

00:43:28.830 --> 00:43:30.300 then you're necessarily going to  
NOTE Confidence: 0.8199638

00:43:30.300 --> 00:43:31.770 be provided with risk assessment.  
NOTE Confidence: 0.8199638

00:43:31.770 --> 00:43:33.534 Your chance to have an affected  
NOTE Confidence: 0.8199638

00:43:33.534 --> 00:43:34.416 child is 27.3%,  
NOTE Confidence: 0.8199638

00:43:34.420 --> 00:43:35.986 but in fact genetic counseling should  
NOTE Confidence: 0.8199638

00:43:35.986 --> 00:43:37.650 be a patient centered intervention.  
NOTE Confidence: 0.8199638

00:43:37.650 --> 00:43:39.414 So your your you can offer  
NOTE Confidence: 0.8199638

00:43:39.414 --> 00:43:40.590 people that to people,  
NOTE Confidence: 0.8199638

00:43:40.590 --> 00:43:42.934 but you shouldn't be forcing it on them.  
NOTE Confidence: 0.8199638

00:43:42.940 --> 00:43:45.292 So if they want to know the numbers  
NOTE Confidence: 0.8199638

00:43:45.292 --> 00:43:46.762 absolutely, we can do that.

NOTE Confidence: 0.8199638

00:43:46.762 --> 00:43:47.934 But if they don't,

NOTE Confidence: 0.8199638

00:43:47.940 --> 00:43:49.475 maybe we shouldn't be forcing

NOTE Confidence: 0.8199638

00:43:49.475 --> 00:43:50.703 it down the next.

NOTE Confidence: 0.8199638

00:43:50.710 --> 00:43:52.854 So we were able to study whether or

NOTE Confidence: 0.8199638

00:43:52.854 --> 00:43:54.145 whether discussing risk actually

NOTE Confidence: 0.8199638

00:43:54.145 --> 00:43:55.537 related to patient outcomes,

NOTE Confidence: 0.8199638

00:43:55.540 --> 00:43:57.654 and I think I've got something to.

NOTE Confidence: 0.8199638

00:43:57.660 --> 00:43:58.262 And yeah,

NOTE Confidence: 0.8199638

00:43:58.262 --> 00:44:00.068 I'm going to share with you

NOTE Confidence: 0.8199638

00:44:00.068 --> 00:44:01.579 briefly what we found here.

NOTE Confidence: 0.8199638

00:44:01.580 --> 00:44:03.519 So the way that we contract around

NOTE Confidence: 0.8199638

00:44:03.519 --> 00:44:05.057 risk assessment in genetic counseling

NOTE Confidence: 0.8199638

00:44:05.057 --> 00:44:07.013 is that when somebody comes in,

NOTE Confidence: 0.8199638

00:44:07.020 --> 00:44:09.022 we of course ask them what they

NOTE Confidence: 0.8199638

00:44:09.022 --> 00:44:10.631 want to talk about, right?

NOTE Confidence: 0.8199638



00:44:10.631 --> 00:44:12.668 And even if that person says I'm  
NOTE Confidence: 0.8199638

00:44:12.668 --> 00:44:14.477 only here 'cause I wanna know  
NOTE Confidence: 0.8199638

00:44:14.477 --> 00:44:16.604 what the chances for my child to  
NOTE Confidence: 0.8199638

00:44:16.604 --> 00:44:18.189 develop the condition I have,  
NOTE Confidence: 0.8199638

00:44:18.190 --> 00:44:19.700 we say great, no problem.  
NOTE Confidence: 0.8199638

00:44:19.700 --> 00:44:22.094 Yeah, we can absolutely talk about that.  
NOTE Confidence: 0.8199638

00:44:22.100 --> 00:44:23.633 But what we found is really helpful  
NOTE Confidence: 0.8199638

00:44:23.633 --> 00:44:25.916 is if we have some sort of shared  
NOTE Confidence: 0.8199638

00:44:25.916 --> 00:44:27.790 understanding about what these numbers mean,  
NOTE Confidence: 0.8199638

00:44:27.790 --> 00:44:28.806 where they come from,  
NOTE Confidence: 0.8199638

00:44:28.806 --> 00:44:30.980 and what we like some framing you know  
NOTE Confidence: 0.8199638

00:44:30.980 --> 00:44:32.774 about what we understand about how  
NOTE Confidence: 0.8199638

00:44:32.774 --> 00:44:34.568 these conditions arise in the 1st place.  
NOTE Confidence: 0.8199638

00:44:34.570 --> 00:44:35.245 Would you know?  
NOTE Confidence: 0.8199638

00:44:35.245 --> 00:44:37.439 Is it OK with you if we talk about  
NOTE Confidence: 0.8199638

00:44:37.439 --> 00:44:39.378 that first and then we can talk

NOTE Confidence: 0.8199638

00:44:39.378 --> 00:44:41.340 about the numbers in that context,

NOTE Confidence: 0.8199638

00:44:41.340 --> 00:44:42.700 people will invariably say yes,

NOTE Confidence: 0.8199638

00:44:42.700 --> 00:44:44.050 so that's what we do.

NOTE Confidence: 0.8199638

00:44:44.050 --> 00:44:46.218 And then we once we've done that once,

NOTE Confidence: 0.8199638

00:44:46.220 --> 00:44:47.846 we've had the discussion about etiology.

NOTE Confidence: 0.8199638

00:44:47.850 --> 00:44:48.663 We say OK,

NOTE Confidence: 0.8199638

00:44:48.663 --> 00:44:50.560 so they don't talk about numbers now.

NOTE Confidence: 0.8199638

00:44:50.560 --> 00:44:53.044 And what we found is that it doesn't always.

NOTE Confidence: 0.8199638

00:44:53.050 --> 00:44:53.660 Match up,

NOTE Confidence: 0.8199638

00:44:53.660 --> 00:44:55.795 so if somebody starts at the beginning

NOTE Confidence: 0.8199638

00:44:55.795 --> 00:44:58.108 saying yes they don't come out at the end,

NOTE Confidence: 0.8199638

00:44:58.110 --> 00:44:58.953 you're saying yes,

NOTE Confidence: 0.8199638

00:44:58.953 --> 00:45:00.358 this is what we get.

NOTE Confidence: 0.8199638

00:45:00.360 --> 00:45:02.250 We get people who start out saying

NOTE Confidence: 0.8199638

00:45:02.250 --> 00:45:04.243 yes and finish saying yes we get

NOTE Confidence: 0.8199638

00:45:04.243 --> 00:45:05.929 people start saying no and finish  
NOTE Confidence: 0.84779733

00:45:05.988 --> 00:45:08.226 saying no. But some people do a flip  
NOTE Confidence: 0.84779733

00:45:08.226 --> 00:45:09.632 flopping between right? Any guesses?  
NOTE Confidence: 0.84779733

00:45:09.632 --> 00:45:11.318 Or we can't interact coming really.  
NOTE Confidence: 0.84779733

00:45:11.320 --> 00:45:13.390 Any guesses as to which group is going to  
NOTE Confidence: 0.84779733

00:45:13.390 --> 00:45:15.145 have the biggest increases in empowerment  
NOTE Confidence: 0.84779733

00:45:15.145 --> 00:45:17.220 as a result of genetic counseling?  
NOTE Confidence: 0.84779733

00:45:17.220 --> 00:45:19.180 I'll give you a moment to consider.  
NOTE Confidence: 0.8655657

00:45:22.460 --> 00:45:24.413 This one, so it's the people who  
NOTE Confidence: 0.8655657

00:45:24.413 --> 00:45:26.318 initially come in saying yes please.  
NOTE Confidence: 0.8655657

00:45:26.320 --> 00:45:28.399 I want numbers and after discussing etiology,  
NOTE Confidence: 0.8655657

00:45:28.400 --> 00:45:31.074 so you know what actually I'm good, I don't.  
NOTE Confidence: 0.8655657

00:45:31.074 --> 00:45:32.856 I don't need not need numbers,  
NOTE Confidence: 0.8655657

00:45:32.860 --> 00:45:34.918 they have the greatest increases and  
NOTE Confidence: 0.8655657

00:45:34.918 --> 00:45:36.818 empowerment after genetic counseling and I  
NOTE Confidence: 0.8655657

00:45:36.818 --> 00:45:38.498 think that's because they really get it.

NOTE Confidence: 0.8655657

00:45:38.500 --> 00:45:39.277 They're like OK,

NOTE Confidence: 0.8655657

00:45:39.277 --> 00:45:41.770 I can see it's not a foregone conclusion.

NOTE Confidence: 0.8655657

00:45:41.770 --> 00:45:43.667 I can see that there are things

NOTE Confidence: 0.8655657

00:45:43.667 --> 00:45:45.810 that I can do to not prevent

NOTE Confidence: 0.8655657

00:45:45.810 --> 00:45:47.706 but to reduce the risk perhaps,

NOTE Confidence: 0.8655657

00:45:47.710 --> 00:45:50.118 and so they get what you know when

NOTE Confidence: 0.8655657

00:45:50.118 --> 00:45:52.665 people say I only want to know numbers.

NOTE Confidence: 0.8655657

00:45:52.670 --> 00:45:54.090 There only articulating what they're

NOTE Confidence: 0.8655657

00:45:54.090 --> 00:45:55.510 able to articulate what they

NOTE Confidence: 0.8655657

00:45:55.555 --> 00:45:56.990 really mean when they say I want

NOTE Confidence: 0.8655657

00:45:56.990 --> 00:45:58.439 numbers is I'm scared I'm scared.

NOTE Confidence: 0.8655657

00:45:58.440 --> 00:46:00.448 Is there anything I can do about this?

NOTE Confidence: 0.8655657

00:46:00.450 --> 00:46:02.709 I don't want my child have this thing right,

NOTE Confidence: 0.8655657

00:46:02.710 --> 00:46:04.393 so we can so we can address all of

NOTE Confidence: 0.8655657

00:46:04.393 --> 00:46:05.995 that actually without without going to

NOTE Confidence: 0.8655657

00:46:05.995 --> 00:46:08.230 numbers and and so it's really important,  
NOTE Confidence: 0.8655657

00:46:08.230 --> 00:46:10.449 I think to make sure that you're  
NOTE Confidence: 0.8655657

00:46:10.449 --> 00:46:11.780 addressing people's actual needs.  
NOTE Confidence: 0.8655657

00:46:11.780 --> 00:46:14.160 I'm not going to talk about that.  
NOTE Confidence: 0.8655657

00:46:14.160 --> 00:46:16.652 'cause I am being bergling on and  
NOTE Confidence: 0.8655657

00:46:16.652 --> 00:46:19.050 I really wanna finish so that we  
NOTE Confidence: 0.8655657

00:46:19.050 --> 00:46:20.615 can talk at the end.  
NOTE Confidence: 0.8655657

00:46:20.620 --> 00:46:23.340 So I'm going to briefly touch on this,  
NOTE Confidence: 0.8655657

00:46:23.340 --> 00:46:25.040 consider implications for genetic testing.  
NOTE Confidence: 0.8655657

00:46:25.040 --> 00:46:27.133 So I mentioned at the beginning how  
NOTE Confidence: 0.8655657

00:46:27.133 --> 00:46:29.167 you can already get your polygenic  
NOTE Confidence: 0.8655657

00:46:29.167 --> 00:46:30.957 risk scores for psychiatric disorders  
NOTE Confidence: 0.8655657

00:46:30.957 --> 00:46:33.200 on a direct to consumer basis.  
NOTE Confidence: 0.8655657

00:46:33.200 --> 00:46:33.476 OK,  
NOTE Confidence: 0.8655657

00:46:33.476 --> 00:46:35.684 So what happens is you can get your  
NOTE Confidence: 0.8655657

00:46:35.684 --> 00:46:37.635 genetic raw genetic information from

NOTE Confidence: 0.8655657  
00:46:37.635 --> 00:46:39.655 testing from 23andMe or ancestry.  
NOTE Confidence: 0.8655657  
00:46:39.660 --> 00:46:41.890 People like that you can.  
NOTE Confidence: 0.8655657  
00:46:41.890 --> 00:46:44.109 Upload it into one of a whole  
NOTE Confidence: 0.8655657  
00:46:44.109 --> 00:46:45.860 bunch of different interfaces.  
NOTE Confidence: 0.8655657  
00:46:45.860 --> 00:46:47.702 Third party tools which will then  
NOTE Confidence: 0.8655657  
00:46:47.702 --> 00:46:49.402 generate for you your polygenic  
NOTE Confidence: 0.8655657  
00:46:49.402 --> 00:46:51.850 risk score for all sorts of  
NOTE Confidence: 0.8655657  
00:46:51.850 --> 00:46:53.074 conditions including schizophrenia,  
NOTE Confidence: 0.8655657  
00:46:53.080 --> 00:46:54.553 depression, bipolar disorder,  
NOTE Confidence: 0.8655657  
00:46:54.553 --> 00:46:57.008 Alzheimer's, you name it right.  
NOTE Confidence: 0.8655657  
00:46:57.010 --> 00:46:59.796 So yeah, what we're finding is so.  
NOTE Confidence: 0.8655657  
00:46:59.800 --> 00:47:02.176 This is data from impute me,  
NOTE Confidence: 0.8655657  
00:47:02.180 --> 00:47:04.568 which is an open source nonprofit  
NOTE Confidence: 0.8655657  
00:47:04.568 --> 00:47:06.533 tool of this nature, right?  
NOTE Confidence: 0.8655657  
00:47:06.533 --> 00:47:08.771 And what they're showing is that  
NOTE Confidence: 0.8655657

00:47:08.771 --> 00:47:11.228 basically the usage of this service  
NOTE Confidence: 0.8655657

00:47:11.228 --> 00:47:12.924 is just basically skyrocketing,  
NOTE Confidence: 0.8655657

00:47:12.930 --> 00:47:13.301 right?  
NOTE Confidence: 0.8655657

00:47:13.301 --> 00:47:14.043 It's it's?  
NOTE Confidence: 0.8655657

00:47:14.043 --> 00:47:16.269 It's really picking up and taking  
NOTE Confidence: 0.8655657

00:47:16.269 --> 00:47:18.810 off and of the conditions that  
NOTE Confidence: 0.8655657

00:47:18.810 --> 00:47:20.490 are most frequently searched,  
NOTE Confidence: 0.8655657

00:47:20.490 --> 00:47:23.276 a whole bunch of them are psychiatric.  
NOTE Confidence: 0.8655657

00:47:23.280 --> 00:47:25.008 Look at that, right?  
NOTE Confidence: 0.8655657

00:47:25.008 --> 00:47:27.600 This is the top set of.  
NOTE Confidence: 0.8655657

00:47:27.600 --> 00:47:31.408 Things that people go there to search for.  
NOTE Confidence: 0.8655657

00:47:31.410 --> 00:47:34.066 So we actually don't know anything at all.  
NOTE Confidence: 0.8655657

00:47:34.070 --> 00:47:35.410 Basically about how people,  
NOTE Confidence: 0.8655657

00:47:35.410 --> 00:47:37.774 why why people do this first of  
NOTE Confidence: 0.8655657

00:47:37.774 --> 00:47:39.825 all and how they react or respond  
NOTE Confidence: 0.8655657

00:47:39.825 --> 00:47:41.730 once they've got this information.

NOTE Confidence: 0.8655657

00:47:41.730 --> 00:47:43.728 So what you're looking at here

NOTE Confidence: 0.8655657

00:47:43.728 --> 00:47:44.727 is Larissa Peck,

NOTE Confidence: 0.8655657

00:47:44.730 --> 00:47:46.728 who's one of my genetic counseling

NOTE Confidence: 0.8655657

00:47:46.728 --> 00:47:48.060 students in Kennedy Bully,

NOTE Confidence: 0.8655657

00:47:48.060 --> 00:47:49.725 who's a recent graduate who

NOTE Confidence: 0.8655657

00:47:49.725 --> 00:47:51.390 have been working with Anne.

NOTE Confidence: 0.8655657

00:47:51.390 --> 00:47:53.714 This is Lassa focusing in the middle.

NOTE Confidence: 0.8655657

00:47:53.720 --> 00:47:55.385 He's the person who developed

NOTE Confidence: 0.8655657

00:47:55.385 --> 00:47:57.478 this impute me website, you know.

NOTE Confidence: 0.8655657

00:47:57.478 --> 00:47:59.373 Free open source thinking manner

NOTE Confidence: 0.8655657

00:47:59.373 --> 00:48:00.510 which so yeah.

NOTE Confidence: 0.8655657

00:48:00.510 --> 00:48:02.372 And what you're looking at here is

NOTE Confidence: 0.8655657

00:48:02.372 --> 00:48:04.398 the typical way that all of these

NOTE Confidence: 0.8655657

00:48:04.398 --> 00:48:06.156 different websites will will give you

NOTE Confidence: 0.8655657

00:48:06.209 --> 00:48:08.177 data about your polygenic risk score.

NOTE Confidence: 0.8655657



00:48:08.180 --> 00:48:10.119 And so we ask people you know  
NOTE Confidence: 0.8655657

00:48:10.119 --> 00:48:10.950 who were going  
NOTE Confidence: 0.86402214

00:48:11.013 --> 00:48:12.905 to this website, what they understood  
NOTE Confidence: 0.86402214

00:48:12.905 --> 00:48:14.970 about the data that they'd received right?  
NOTE Confidence: 0.86402214

00:48:14.970 --> 00:48:17.733 So, and I don't know if you can see  
NOTE Confidence: 0.86402214

00:48:17.733 --> 00:48:20.415 there we can do a pop quiz at the end  
NOTE Confidence: 0.86402214

00:48:20.415 --> 00:48:23.201 if you like to see who got this one  
NOTE Confidence: 0.86402214

00:48:23.201 --> 00:48:25.290 right or wrong or whatever but but,  
NOTE Confidence: 0.86402214

00:48:25.290 --> 00:48:26.470 but basically we're finding  
NOTE Confidence: 0.86402214

00:48:26.470 --> 00:48:27.945 that people really just don't,  
NOTE Confidence: 0.86402214

00:48:27.950 --> 00:48:29.420 although it is in bigger.  
NOTE Confidence: 0.86402214

00:48:29.420 --> 00:48:30.895 That's good, but what we're  
NOTE Confidence: 0.86402214

00:48:30.895 --> 00:48:32.421 finding is that really, people?  
NOTE Confidence: 0.86402214

00:48:32.421 --> 00:48:34.808 To understand the data that they're getting,  
NOTE Confidence: 0.86402214

00:48:34.810 --> 00:48:35.814 only 35% of them,  
NOTE Confidence: 0.86402214

00:48:35.814 --> 00:48:38.404 and if you think about who's going to this

NOTE Confidence: 0.86402214

00:48:38.404 --> 00:48:40.444 website and getting polygenic risk scores,

NOTE Confidence: 0.86402214

00:48:40.450 --> 00:48:42.754 they're going to be people we would think of

NOTE Confidence: 0.86402214

00:48:42.754 --> 00:48:45.195 as being early adopters really write this.

NOTE Confidence: 0.86402214

00:48:45.200 --> 00:48:47.408 This is the front of the wave of

NOTE Confidence: 0.86402214

00:48:47.408 --> 00:48:49.070 people doing this stuff right,

NOTE Confidence: 0.86402214

00:48:49.070 --> 00:48:52.134 and so if only 35% of them are getting

NOTE Confidence: 0.86402214

00:48:52.134 --> 00:48:53.718 understanding what they're getting.

NOTE Confidence: 0.86402214

00:48:53.720 --> 00:48:55.500 That's a bit worrisome, right?

NOTE Confidence: 0.86402214

00:48:55.500 --> 00:48:58.100 This bit down here is the bit that

NOTE Confidence: 0.86402214

00:48:58.100 --> 00:49:00.176 causes me concern, however, right.

NOTE Confidence: 0.86402214

00:49:00.176 --> 00:49:02.822 We actually used a ninja validated instrument

NOTE Confidence: 0.86402214

00:49:02.822 --> 00:49:04.758 called the impact of Events scale,

NOTE Confidence: 0.86402214

00:49:04.760 --> 00:49:07.028 and it has established thresholds an

NOTE Confidence: 0.86402214

00:49:07.028 --> 00:49:08.914 it's it's obviously anchored onto

NOTE Confidence: 0.86402214

00:49:08.914 --> 00:49:10.804 the genetic test that people had,

NOTE Confidence: 0.86402214

00:49:10.810 --> 00:49:12.750 but it's got established threat  
NOTE Confidence: 0.86402214

00:49:12.750 --> 00:49:15.336 thresholds for PTSD and what we found  
NOTE Confidence: 0.86402214

00:49:15.336 --> 00:49:18.036 was that people 5% of people who receive  
NOTE Confidence: 0.86402214

00:49:18.036 --> 00:49:19.956 polygenic risk scores scored above  
NOTE Confidence: 0.86402214

00:49:19.956 --> 00:49:21.630 threshold on this validated instrument  
NOTE Confidence: 0.86402214

00:49:21.630 --> 00:49:24.469 full PTSD as a result of receiving their.  
NOTE Confidence: 0.86402214

00:49:24.470 --> 00:49:25.319 Legion risk scores,  
NOTE Confidence: 0.86402214

00:49:25.319 --> 00:49:27.719 which is kind of terrifying if you ask me,  
NOTE Confidence: 0.86402214

00:49:27.720 --> 00:49:29.310 especially once this starts ramping up  
NOTE Confidence: 0.86402214

00:49:29.310 --> 00:49:32.800 and more people are going there, etc.  
NOTE Confidence: 0.86402214

00:49:32.800 --> 00:49:33.462 So anyway,  
NOTE Confidence: 0.86402214

00:49:33.462 --> 00:49:34.124 to summarize,  
NOTE Confidence: 0.86402214

00:49:34.124 --> 00:49:36.110 and that hopefully we can have  
NOTE Confidence: 0.86402214

00:49:36.175 --> 00:49:37.378 some discussion now,  
NOTE Confidence: 0.86402214

00:49:37.380 --> 00:49:39.546 but hopefully I've managed to demonstrate  
NOTE Confidence: 0.86402214

00:49:39.546 --> 00:49:41.950 for you that understanding cause of illness.

NOTE Confidence: 0.86402214

00:49:41.950 --> 00:49:44.140 It is really important to people

NOTE Confidence: 0.86402214

00:49:44.140 --> 00:49:45.600 who have psychiatric disorders

NOTE Confidence: 0.86402214

00:49:45.665 --> 00:49:47.579 but also to their family members.

NOTE Confidence: 0.86402214

00:49:47.580 --> 00:49:49.698 And genetic counseling is about more.

NOTE Confidence: 0.86402214

00:49:49.700 --> 00:49:52.157 It's not the same as genetic testing,

NOTE Confidence: 0.86402214

00:49:52.160 --> 00:49:54.176 and it's not the same as just

NOTE Confidence: 0.86402214

00:49:54.176 --> 00:49:55.562 providing information or risk

NOTE Confidence: 0.86402214

00:49:55.562 --> 00:49:57.438 communication when carefully delivered.

NOTE Confidence: 0.86402214

00:49:57.440 --> 00:49:59.546 It can really result in positive,

NOTE Confidence: 0.86402214

00:49:59.550 --> 00:50:00.304 meaningful out.

NOTE Confidence: 0.86402214

00:50:00.304 --> 00:50:02.189 Homes for families and genetic

NOTE Confidence: 0.86402214

00:50:02.189 --> 00:50:03.920 testing for psychiatric disorders.

NOTE Confidence: 0.86402214

00:50:03.920 --> 00:50:05.880 No matter whether it's CNV's,

NOTE Confidence: 0.86402214

00:50:05.880 --> 00:50:08.350 whether it's polygenic, risk scores, etc.

NOTE Confidence: 0.86402214

00:50:08.350 --> 00:50:10.390 My strong argument is.

NOTE Confidence: 0.86402214

00:50:10.390 --> 00:50:10.709 Basically,  
NOTE Confidence: 0.86402214  
00:50:10.709 --> 00:50:12.304 if we're embarking on any  
NOTE Confidence: 0.86402214  
00:50:12.304 --> 00:50:13.580 any initiatives like that,  
NOTE Confidence: 0.86402214  
00:50:13.580 --> 00:50:15.407 we should really be ensuring that it's  
NOTE Confidence: 0.86402214  
00:50:15.407 --> 00:50:17.424 delivered in the context of evidence  
NOTE Confidence: 0.86402214  
00:50:17.424 --> 00:50:19.000 based psychiatric genetic counselling.  
NOTE Confidence: 0.86402214  
00:50:19.000 --> 00:50:19.333 Yeah,  
NOTE Confidence: 0.86402214  
00:50:19.333 --> 00:50:21.997 I'm going to leave you with a lovely  
NOTE Confidence: 0.86402214  
00:50:21.997 --> 00:50:24.191 picture of my team who is actually  
NOTE Confidence: 0.86402214  
00:50:24.191 --> 00:50:26.657 the people that do all of this stuff.  
NOTE Confidence: 0.86402214  
00:50:26.660 --> 00:50:26.975 Um,  
NOTE Confidence: 0.86402214  
00:50:26.975 --> 00:50:27.290 yeah,  
NOTE Confidence: 0.86402214  
00:50:27.290 --> 00:50:29.495 so thank you very very much for  
NOTE Confidence: 0.86402214  
00:50:29.495 --> 00:50:31.564 your attention and I'd love to  
NOTE Confidence: 0.86402214  
00:50:31.564 --> 00:50:33.998 hear what you've got to say to me.  
NOTE Confidence: 0.86402214  
00:50:34.000 --> 00:50:34.325 Yeah,

NOTE Confidence: 0.86402214

00:50:34.325 --> 00:50:36.925 so I'm going to stop by screenshare now

NOTE Confidence: 0.86402214

00:50:36.925 --> 00:50:39.740 so that we can look at each other, yeah?

NOTE Confidence: 0.8303509

00:50:40.560 --> 00:50:42.340 You know, it's still fantastic.

NOTE Confidence: 0.8303509

00:50:42.340 --> 00:50:43.708 Thank you. No problem.

NOTE Confidence: 0.8303509

00:50:43.708 --> 00:50:46.240 I see some hand clapping as icons.

NOTE Confidence: 0.8303509

00:50:46.240 --> 00:50:48.599 We can't give you the full applause

NOTE Confidence: 0.8303509

00:50:48.599 --> 00:50:51.215 that you would deserve if people can

NOTE Confidence: 0.8303509

00:50:51.215 --> 00:50:53.700 post their questions into the chat box.

NOTE Confidence: 0.8303509

00:50:53.700 --> 00:50:55.830 Maybe we can organize from there.

NOTE Confidence: 0.9014781

00:50:58.040 --> 00:51:01.240 Oh, I see the first question.

NOTE Confidence: 0.847313

00:51:01.240 --> 00:51:03.347 It's could I explain how empowerment is

NOTE Confidence: 0.847313

00:51:03.347 --> 00:51:05.730 measured in any pointers for clinical use?

NOTE Confidence: 0.847313

00:51:05.730 --> 00:51:07.340 Yeah, that's a lovely question.

NOTE Confidence: 0.847313

00:51:07.340 --> 00:51:09.266 Thank you for asking, because yes,

NOTE Confidence: 0.847313

00:51:09.270 --> 00:51:11.190 I omitted to talk about that.

NOTE Confidence: 0.847313

00:51:11.190 --> 00:51:13.116 Did my sorry in the studies  
NOTE Confidence: 0.847313

00:51:13.116 --> 00:51:14.400 that we've been doing.  
NOTE Confidence: 0.847313

00:51:14.400 --> 00:51:16.619 We've been using a scale called the  
NOTE Confidence: 0.847313

00:51:16.619 --> 00:51:17.930 genetic Counseling Outcome Scale,  
NOTE Confidence: 0.847313

00:51:17.930 --> 00:51:19.856 which is a very generic name.  
NOTE Confidence: 0.847313

00:51:19.860 --> 00:51:21.465 But actually the construct that  
NOTE Confidence: 0.847313

00:51:21.465 --> 00:51:22.749 it measures is empowerment.  
NOTE Confidence: 0.847313

00:51:22.750 --> 00:51:24.630 So the reason that we so there are  
NOTE Confidence: 0.847313

00:51:24.630 --> 00:51:26.842 of course there are other validated  
NOTE Confidence: 0.847313

00:51:26.842 --> 00:51:28.526 instruments that measure empowerment.  
NOTE Confidence: 0.847313

00:51:28.530 --> 00:51:31.050 But the reason that we chose that one is  
NOTE Confidence: 0.847313

00:51:31.050 --> 00:51:33.137 because it was specifically developed.  
NOTE Confidence: 0.847313

00:51:33.140 --> 00:51:35.450 For use in clinical genetic settings  
NOTE Confidence: 0.847313

00:51:35.450 --> 00:51:37.800 and validated in that context as  
NOTE Confidence: 0.847313

00:51:37.800 --> 00:51:40.026 well so interesting that you should  
NOTE Confidence: 0.847313

00:51:40.026 --> 00:51:42.567 ask about pointers for clinical use.

NOTE Confidence: 0.847313  
00:51:42.570 --> 00:51:45.630 Be 'cause we're actually looking  
NOTE Confidence: 0.847313  
00:51:45.630 --> 00:51:48.078 at the moment at.  
NOTE Confidence: 0.847313  
00:51:48.080 --> 00:51:50.558 We've been doing some some rash  
NOTE Confidence: 0.847313  
00:51:50.558 --> 00:51:52.591 measurement theory stuff with the  
NOTE Confidence: 0.847313  
00:51:52.591 --> 00:51:54.726 scale and what we're trying to do  
NOTE Confidence: 0.847313  
00:51:54.726 --> 00:51:57.398 with it is to develop it into an  
NOTE Confidence: 0.847313  
00:51:57.398 --> 00:51:59.086 instrument that could be used,  
NOTE Confidence: 0.847313  
00:51:59.086 --> 00:52:00.510 for example by psychiatrists,  
NOTE Confidence: 0.847313  
00:52:00.510 --> 00:52:02.490 to identify people who might benefit  
NOTE Confidence: 0.847313  
00:52:02.490 --> 00:52:04.410 most from psychiatric genetic counseling.  
NOTE Confidence: 0.847313  
00:52:04.410 --> 00:52:05.714 Because as I mentioned,  
NOTE Confidence: 0.847313  
00:52:05.714 --> 00:52:07.344 we demonstrated that people who  
NOTE Confidence: 0.847313  
00:52:07.344 --> 00:52:08.995 scored lower on empowerment with  
NOTE Confidence: 0.847313  
00:52:08.995 --> 00:52:10.891 the people who benefited most from  
NOTE Confidence: 0.847313  
00:52:10.946 --> 00:52:12.578 psychiatric genetic counseling.  
NOTE Confidence: 0.847313



00:52:12.580 --> 00:52:13.400 So yeah,  
NOTE Confidence: 0.847313

00:52:13.400 --> 00:52:15.450 we're working on developing a  
NOTE Confidence: 0.847313

00:52:15.450 --> 00:52:17.312 really brief instrument that might  
NOTE Confidence: 0.847313

00:52:17.312 --> 00:52:18.727 be able to be used.  
NOTE Confidence: 0.847313

00:52:18.730 --> 00:52:21.047 Um, to identify you by by clinicians.  
NOTE Confidence: 0.847313

00:52:21.050 --> 00:52:22.514 People like yourselves to  
NOTE Confidence: 0.847313

00:52:22.514 --> 00:52:24.344 identify people that might benefit  
NOTE Confidence: 0.847313

00:52:24.344 --> 00:52:26.010 from what we have to offer.  
NOTE Confidence: 0.63606876

00:52:28.310 --> 00:52:29.900 Jenny looks like Chris Pittenger has  
NOTE Confidence: 0.63606876

00:52:29.900 --> 00:52:33.450 a question. Chris Evan if you knew.  
NOTE Confidence: 0.63606876

00:52:33.450 --> 00:52:35.345 Yeah thanks, thanks for that really  
NOTE Confidence: 0.63606876

00:52:35.345 --> 00:52:37.215 great talk in a wonderful perspective  
NOTE Confidence: 0.63606876

00:52:37.215 --> 00:52:39.450 on how to address these issues with  
NOTE Confidence: 0.85496634

00:52:39.450 --> 00:52:41.346 patients. I know there's been some  
NOTE Confidence: 0.85496634

00:52:41.346 --> 00:52:43.878 discussion I'm most familiar with it in the  
NOTE Confidence: 0.85496634

00:52:43.880 --> 00:52:46.408 bipolar literature, but it comes up in some

NOTE Confidence: 0.85496634

00:52:46.410 --> 00:52:47.670 other diagnosis as well.

NOTE Confidence: 0.85496634

00:52:47.670 --> 00:52:49.565 Where genetic risk factors may also

NOTE Confidence: 0.85496634

00:52:49.565 --> 00:52:51.148 provide some benefit. So there's

NOTE Confidence: 0.85496634

00:52:51.150 --> 00:52:53.040 been discussion about how risk for

NOTE Confidence: 0.85496634

00:52:53.040 --> 00:52:54.621 bipolar may correlate with creativity.

NOTE Confidence: 0.85496634

00:52:54.621 --> 00:52:56.200 There's been some discussion how

NOTE Confidence: 0.85496634

00:52:56.200 --> 00:52:58.415 risk with OC D might correlate with

NOTE Confidence: 0.85496634

00:52:58.415 --> 00:52:59.675 adaptive organizational traits in

NOTE Confidence: 0.85496634

00:52:59.680 --> 00:53:01.636 modest doses, so I'm just curious

NOTE Confidence: 0.85496634

00:53:01.636 --> 00:53:03.670 how you address that complexity.

NOTE Confidence: 0.85496634

00:53:03.670 --> 00:53:05.190 In your counseling to summarize

NOTE Confidence: 0.85496634

00:53:05.190 --> 00:53:07.280 how we address that in one word,

NOTE Confidence: 0.85496634

00:53:07.280 --> 00:53:09.086 we would say I'd say carefully.

NOTE Confidence: 0.8575242

00:53:11.230 --> 00:53:13.785 But but yeah, to give you a

NOTE Confidence: 0.8575242

00:53:13.785 --> 00:53:16.158 little bit more context so so.

NOTE Confidence: 0.8575242

00:53:16.160 --> 00:53:17.384 Yeah, we absolutely do,  
NOTE Confidence: 0.8575242

00:53:17.384 --> 00:53:19.906 and so you know the language that I've  
NOTE Confidence: 0.8575242

00:53:19.906 --> 00:53:22.402 been using with you today is around genetic  
NOTE Confidence: 0.8575242

00:53:22.464 --> 00:53:24.820 vulnerability or genetic susceptibility.  
NOTE Confidence: 0.8575242

00:53:24.820 --> 00:53:27.347 Or you know predisposition if you like.  
NOTE Confidence: 0.8575242

00:53:27.350 --> 00:53:30.031 And those words have varying degrees of  
NOTE Confidence: 0.8575242

00:53:30.031 --> 00:53:32.175 negative connotation attached to them, right?  
NOTE Confidence: 0.8575242

00:53:32.175 --> 00:53:35.640 So another way of talking about it  
NOTE Confidence: 0.8575242

00:53:35.640 --> 00:53:38.229 would actually be to talk about.  
NOTE Confidence: 0.8575242

00:53:38.230 --> 00:53:41.086 Plasticity, if you like which is you know,  
NOTE Confidence: 0.8575242

00:53:41.090 --> 00:53:41.813 so you know.  
NOTE Confidence: 0.8575242

00:53:41.813 --> 00:53:44.308 And I I think for me the word predisposition  
NOTE Confidence: 0.8575242

00:53:44.308 --> 00:53:47.276 is the least negative of all you know  
NOTE Confidence: 0.8575242

00:53:47.345 --> 00:53:49.689 of the susceptibility vulnerability,  
NOTE Confidence: 0.8575242

00:53:49.690 --> 00:53:51.480 kind of group of wording.  
NOTE Confidence: 0.8575242

00:53:51.480 --> 00:53:54.352 So, so the way that we often talk

NOTE Confidence: 0.8575242

00:53:54.352 --> 00:53:57.313 about that in the context of genetic

NOTE Confidence: 0.8575242

00:53:57.313 --> 00:54:00.050 counseling would be to have you

NOTE Confidence: 0.8575242

00:54:00.050 --> 00:54:02.495 seen the orchid dandelion stuff.

NOTE Confidence: 0.8575242

00:54:02.500 --> 00:54:03.668 Yeah OK cool yeah.

NOTE Confidence: 0.8575242

00:54:03.668 --> 00:54:05.804 So for those of you that don't

NOTE Confidence: 0.8575242

00:54:05.804 --> 00:54:07.670 know it the so it's about.

NOTE Confidence: 0.8575242

00:54:07.670 --> 00:54:08.882 It's about plasticity and

NOTE Confidence: 0.8575242

00:54:08.882 --> 00:54:10.397 it's about exactly this stuff.

NOTE Confidence: 0.8575242

00:54:10.400 --> 00:54:12.242 It's about how there is evidence

NOTE Confidence: 0.8575242

00:54:12.242 --> 00:54:13.902 that the genetic factors that

NOTE Confidence: 0.8575242

00:54:13.902 --> 00:54:15.762 contribute to vulnerability for these

NOTE Confidence: 0.8575242

00:54:15.762 --> 00:54:17.528 conditions also can confer some

NOTE Confidence: 0.8575242

00:54:17.528 --> 00:54:19.517 traits that we tend to think of in a

NOTE Confidence: 0.8575242

00:54:19.520 --> 00:54:21.040 more positive light creativity blog.

NOTE Confidence: 0.8575242

00:54:21.040 --> 00:54:21.626 You know,

NOTE Confidence: 0.8575242

00:54:21.626 --> 00:54:23.384 all of those things we were  
NOTE Confidence: 0.8575242

00:54:23.384 --> 00:54:24.390 just talking about.  
NOTE Confidence: 0.8575242

00:54:24.390 --> 00:54:26.518 So the concept is that there are,  
NOTE Confidence: 0.8575242

00:54:26.520 --> 00:54:28.522 you know, people can be thought of  
NOTE Confidence: 0.8575242

00:54:28.522 --> 00:54:30.465 as orchids or dandy Lions, right?  
NOTE Confidence: 0.8575242

00:54:30.465 --> 00:54:31.990 Dandy Lions are really robust,  
NOTE Confidence: 0.8575242

00:54:31.990 --> 00:54:34.934 they can grow through cracks in paving slabs.  
NOTE Confidence: 0.8575242

00:54:34.940 --> 00:54:36.412 Their environment doesn't matter  
NOTE Confidence: 0.8575242

00:54:36.412 --> 00:54:37.884 so much to them.  
NOTE Confidence: 0.8575242

00:54:37.890 --> 00:54:40.848 They will produce a dandy lion flower, right?  
NOTE Confidence: 0.8575242

00:54:40.848 --> 00:54:42.688 Whereas on the other hand,  
NOTE Confidence: 0.8575242

00:54:42.690 --> 00:54:44.904 orchids are not going to go  
NOTE Confidence: 0.8575242

00:54:44.904 --> 00:54:46.380 through cracks in pavements.  
NOTE Confidence: 0.8575242

00:54:46.380 --> 00:54:47.487 They're just not.  
NOTE Confidence: 0.8575242

00:54:47.487 --> 00:54:47.856 However,  
NOTE Confidence: 0.8575242

00:54:47.856 --> 00:54:50.070 with the right circumstances and environment,

NOTE Confidence: 0.8575242

00:54:50.070 --> 00:54:52.646 or kids can thrive, and they can.

NOTE Confidence: 0.8575242

00:54:52.650 --> 00:54:54.500 Arguably, depending on your perspective,

NOTE Confidence: 0.8575242

00:54:54.500 --> 00:54:56.714 produce a flower that is more

NOTE Confidence: 0.8575242

00:54:56.714 --> 00:54:58.190 beautiful than Dandy lion.

NOTE Confidence: 0.8575242

00:54:58.190 --> 00:55:00.398 Not that this is a competition,

NOTE Confidence: 0.8575242

00:55:00.400 --> 00:55:01.164 of course,

NOTE Confidence: 0.8575242

00:55:01.164 --> 00:55:04.900 so so it's a way of helping people to see.

NOTE Confidence: 0.8575242

00:55:04.900 --> 00:55:06.820 That you're not doomed that there,

NOTE Confidence: 0.8575242

00:55:06.820 --> 00:55:08.184 but there are positives,

NOTE Confidence: 0.8575242

00:55:08.184 --> 00:55:10.230 so there can be positives associated

NOTE Confidence: 0.8575242

00:55:10.292 --> 00:55:11.300 with some of this.

NOTE Confidence: 0.8575242

00:55:11.300 --> 00:55:11.580 However,

NOTE Confidence: 0.8575242

00:55:11.580 --> 00:55:13.540 there's it can be really difficult to

NOTE Confidence: 0.8575242

00:55:13.540 --> 00:55:15.459 have this conversation with parents,

NOTE Confidence: 0.8575242

00:55:15.460 --> 00:55:17.380 for example, who then get like.

NOTE Confidence: 0.8575242

00:55:17.380 --> 00:55:17.700 OK,  
NOTE Confidence: 0.8575242

00:55:17.700 --> 00:55:20.260 I'm going to do everything within my power,  
NOTE Confidence: 0.8575242

00:55:20.260 --> 00:55:20.776 you know.  
NOTE Confidence: 0.8575242

00:55:20.776 --> 00:55:22.840 And so we you need to be really  
NOTE Confidence: 0.8575242

00:55:22.913 --> 00:55:25.058 careful about tempering that with.  
NOTE Confidence: 0.8575242

00:55:25.060 --> 00:55:27.364 We don't know what that perfect  
NOTE Confidence: 0.8575242

00:55:27.364 --> 00:55:28.900 environment necessarily looked like.  
NOTE Confidence: 0.8575242

00:55:28.900 --> 00:55:30.850 And we don't have complete control  
NOTE Confidence: 0.8575242

00:55:30.850 --> 00:55:32.474 over the environment either, so.  
NOTE Confidence: 0.8575242

00:55:32.474 --> 00:55:33.446 You know so,  
NOTE Confidence: 0.8575242

00:55:33.446 --> 00:55:35.825 so so I wasn't being facetious when  
NOTE Confidence: 0.8575242

00:55:35.825 --> 00:55:38.338 I said we handle it carefully because  
NOTE Confidence: 0.8575242

00:55:38.338 --> 00:55:41.270 we really do have to handle it carefully,  
NOTE Confidence: 0.8575242

00:55:41.270 --> 00:55:43.238 but I think it's a beautiful  
NOTE Confidence: 0.8575242

00:55:43.238 --> 00:55:44.222 and important concept.  
NOTE Confidence: 0.8575242

00:55:44.230 --> 00:55:45.208 So thank you

NOTE Confidence: 0.8738238

00:55:45.210 --> 00:55:46.530 for asking about it.

NOTE Confidence: 0.8738238

00:55:46.530 --> 00:55:47.805 Yeah, yeah, thank you.

NOTE Confidence: 0.8738238

00:55:47.805 --> 00:55:49.695 Chat one of them is is

NOTE Confidence: 0.8738238

00:55:49.695 --> 00:55:51.460 actually pretty close to that.

NOTE Confidence: 0.8738238

00:55:51.460 --> 00:55:53.026 So asking whether you see you

NOTE Confidence: 0.8738238

00:55:53.026 --> 00:55:54.610 ever see people adopt extreme

NOTE Confidence: 0.8738238

00:55:54.610 --> 00:55:56.068 behavioral changes afterwards,

NOTE Confidence: 0.8738238

00:55:56.070 --> 00:55:57.720 such as extreme exercise. Oh,

NOTE Confidence: 0.8738238

00:55:57.720 --> 00:55:59.305 that's a lovely question because

NOTE Confidence: 0.8738238

00:55:59.305 --> 00:56:00.890 especially if we're thinking about

NOTE Confidence: 0.8738238

00:56:00.945 --> 00:56:02.317 things like eating disorders.

NOTE Confidence: 0.8738238

00:56:02.320 --> 00:56:04.378 Of course, this gets really important.

NOTE Confidence: 0.8738238

00:56:04.380 --> 00:56:06.910 So in all of this we we have to be

NOTE Confidence: 0.8738238

00:56:06.990 --> 00:56:09.790 like you have to be super aware of

NOTE Confidence: 0.8738238

00:56:09.790 --> 00:56:12.391 exactly what you're dealing with, right?

NOTE Confidence: 0.8738238



00:56:12.391 --> 00:56:15.039 So we have to be very careful about  
NOTE Confidence: 0.8738238

00:56:15.039 --> 00:56:17.068 ensuring that you know it's about.  
NOTE Confidence: 0.8738238

00:56:17.070 --> 00:56:18.740 In these contexts about moderation.  
NOTE Confidence: 0.8738238

00:56:18.740 --> 00:56:21.404 And no, actually we have to our knowledge.  
NOTE Confidence: 0.8738238

00:56:21.410 --> 00:56:23.839 So far we haven't seen extreme examples  
NOTE Confidence: 0.8738238

00:56:23.839 --> 00:56:26.244 or of that kind of thing but but  
NOTE Confidence: 0.8738238

00:56:26.244 --> 00:56:28.749 we do try to be very mindful about  
NOTE Confidence: 0.8738238

00:56:28.749 --> 00:56:31.423 ensuring you know we talk to people,  
NOTE Confidence: 0.8738238

00:56:31.430 --> 00:56:33.100 for example about self compassion.  
NOTE Confidence: 0.8738238

00:56:33.100 --> 00:56:35.458 You know this idea that like.  
NOTE Confidence: 0.8738238

00:56:35.460 --> 00:56:37.112 And once you're telling people that hey  
NOTE Confidence: 0.8738238

00:56:37.112 --> 00:56:38.917 sleep diet and exercise blah blah blah,  
NOTE Confidence: 0.8738238

00:56:38.920 --> 00:56:39.960 you know. So people,  
NOTE Confidence: 0.8738238

00:56:39.960 --> 00:56:41.797 I imagine at least that people can  
NOTE Confidence: 0.8738238

00:56:41.797 --> 00:56:43.358 get into a place where they do.  
NOTE Confidence: 0.8738238

00:56:43.360 --> 00:56:45.144 Oh my God, I had fries for lunch

NOTE Confidence: 0.8738238

00:56:45.144 --> 00:56:46.579 and then pizza for dinner.

NOTE Confidence: 0.8738238

00:56:46.580 --> 00:56:48.650 And I know that I should do better and they

NOTE Confidence: 0.8738238

00:56:48.700 --> 00:56:50.530 do self flagellation with guilt stick.

NOTE Confidence: 0.8738238

00:56:50.530 --> 00:56:52.498 So we talk to people about exactly that.

NOTE Confidence: 0.8738238

00:56:52.500 --> 00:56:53.241 We took you.

NOTE Confidence: 0.8738238

00:56:53.241 --> 00:56:54.476 This is not about perfection.

NOTE Confidence: 0.8738238

00:56:54.480 --> 00:56:56.432 This is not like what even is that

NOTE Confidence: 0.8738238

00:56:56.432 --> 00:56:57.439 it's not a thing.

NOTE Confidence: 0.8738238

00:56:57.440 --> 00:57:00.250 It doesn't exist, stop it.

NOTE Confidence: 0.8738238

00:57:00.250 --> 00:57:02.056 So what we're aiming for is

NOTE Confidence: 0.8738238

00:57:02.056 --> 00:57:03.590 doing the best you can,

NOTE Confidence: 0.8738238

00:57:03.590 --> 00:57:05.110 and being kind to yourself

NOTE Confidence: 0.8738238

00:57:05.110 --> 00:57:06.630 if that's just not possible,

NOTE Confidence: 0.8738238

00:57:06.630 --> 00:57:06.940 right?

NOTE Confidence: 0.8543961

00:57:06.940 --> 00:57:09.264 Yeah, that sort of thing, not a question.

NOTE Confidence: 0.8543961

00:57:09.264 --> 00:57:10.604 Have you looked at individual  
NOTE Confidence: 0.8543961

00:57:10.604 --> 00:57:12.192 differences in response to the  
NOTE Confidence: 0.8543961

00:57:12.192 --> 00:57:13.532 genetic counseling sessions in  
NOTE Confidence: 0.8543961

00:57:13.532 --> 00:57:14.537 ultimate treatment outcomes?  
NOTE Confidence: 0.8543961

00:57:14.540 --> 00:57:16.591 And if you've seen any effect in  
NOTE Confidence: 0.8543961

00:57:16.591 --> 00:57:18.190 addiction prevention and or treatment,  
NOTE Confidence: 0.8543961

00:57:18.190 --> 00:57:19.099 right? Thank you.  
NOTE Confidence: 0.8543961

00:57:19.100 --> 00:57:20.012 Yeah, great question.  
NOTE Confidence: 0.8543961

00:57:20.012 --> 00:57:22.312 So yeah, we have looked at in the  
NOTE Confidence: 0.8543961

00:57:22.312 --> 00:57:24.475 Gerard paper from the end of last  
NOTE Confidence: 0.8543961

00:57:24.475 --> 00:57:26.085 year that I mentioned briefly,  
NOTE Confidence: 0.8543961

00:57:26.090 --> 00:57:28.099 we did look at like different diagnosis  
NOTE Confidence: 0.8543961

00:57:28.099 --> 00:57:30.013 and I think substance use conditions  
NOTE Confidence: 0.8543961

00:57:30.013 --> 00:57:32.620 with one of them that we separated out.  
NOTE Confidence: 0.8543961

00:57:32.620 --> 00:57:34.858 And when we're not seeing any,  
NOTE Confidence: 0.8543961

00:57:34.860 --> 00:57:37.890 there's no like there's no statistically

NOTE Confidence: 0.8543961

00:57:37.890 --> 00:57:40.510 significant differences in outcomes between.

NOTE Confidence: 0.8543961

00:57:40.510 --> 00:57:42.298 You know people based on diagnosis.

NOTE Confidence: 0.8543961

00:57:42.300 --> 00:57:43.800 We've also looked just recently.

NOTE Confidence: 0.8543961

00:57:43.800 --> 00:57:45.529 I've had a student won an award

NOTE Confidence: 0.8543961

00:57:45.529 --> 00:57:47.504 actually for a study where she was

NOTE Confidence: 0.8543961

00:57:47.504 --> 00:57:49.675 looking at Big 5 personality traits and

NOTE Confidence: 0.8543961

00:57:49.675 --> 00:57:51.733 coping styles in relation to outcomes

NOTE Confidence: 0.8543961

00:57:51.733 --> 00:57:53.068 of psychiatric genetic counseling.

NOTE Confidence: 0.8543961

00:57:53.068 --> 00:57:53.664 And Interestingly,

NOTE Confidence: 0.8543961

00:57:53.664 --> 00:57:55.452 she found that there was no,

NOTE Confidence: 0.8543961

00:57:55.460 --> 00:57:57.546 there was no difference between the groups.

NOTE Confidence: 0.8543961

00:57:57.550 --> 00:57:59.139 But I have theories about why that

NOTE Confidence: 0.8543961

00:57:59.139 --> 00:58:01.258 might be so because I've said right

NOTE Confidence: 0.8543961

00:58:01.258 --> 00:58:02.296 psychiatric genetic counseling

NOTE Confidence: 0.8543961

00:58:02.296 --> 00:58:03.830 is very patient centered,

NOTE Confidence: 0.8543961

00:58:03.830 --> 00:58:05.837 so I think that what we could be doing  
NOTE Confidence: 0.8543961

00:58:05.837 --> 00:58:07.824 is actually just modifying what we're  
NOTE Confidence: 0.8543961

00:58:07.824 --> 00:58:10.410 doing to meet the individual patients needs,  
NOTE Confidence: 0.8543961

00:58:10.410 --> 00:58:11.965 which is why we don't  
NOTE Confidence: 0.8543961

00:58:11.965 --> 00:58:13.209 really see a difference.  
NOTE Confidence: 0.8543961

00:58:13.210 --> 00:58:14.382 Possibly I don't know.  
NOTE Confidence: 0.8543961

00:58:14.382 --> 00:58:15.847 It's an interesting idea anyway.  
NOTE Confidence: 0.8543961

00:58:15.850 --> 00:58:16.922 So yeah, we are.  
NOTE Confidence: 0.8543961

00:58:16.922 --> 00:58:18.262 We're very interested in exactly  
NOTE Confidence: 0.8543961

00:58:18.262 --> 00:58:19.070 those questions,  
NOTE Confidence: 0.8543961

00:58:19.070 --> 00:58:20.238 and studying them actively.  
NOTE Confidence: 0.7654084

00:58:21.770 --> 00:58:23.865 Awesome and a question relating  
NOTE Confidence: 0.7654084

00:58:23.865 --> 00:58:25.541 to monotonicity versus polygenic  
NOTE Confidence: 0.7654084

00:58:25.541 --> 00:58:27.490 city and and whether you can,  
NOTE Confidence: 0.7654084

00:58:27.490 --> 00:58:29.908 clinicians are ready to help people  
NOTE Confidence: 0.7654084

00:58:29.908 --> 00:58:31.931 with PRS information that's coming

NOTE Confidence: 0.7654084

00:58:31.931 --> 00:58:34.339 from direct consumer is that the end

NOTE Confidence: 0.7654084

00:58:34.340 --> 00:58:35.489 of that answer?

NOTE Confidence: 0.7902978

00:58:39.370 --> 00:58:40.890 Might not be much more to the question.

NOTE Confidence: 0.8688182

00:58:42.350 --> 00:58:44.734 It's a great question and and it's actually,

NOTE Confidence: 0.8688182

00:58:44.740 --> 00:58:46.455 you know, that's why I wanted to

NOTE Confidence: 0.8688182

00:58:46.455 --> 00:58:48.283 include it in my presentation today

NOTE Confidence: 0.8688182

00:58:48.283 --> 00:58:50.359 because I think many clinicians aren't

NOTE Confidence: 0.8688182

00:58:50.359 --> 00:58:52.520 even aware that this is happening yet.

NOTE Confidence: 0.8688182

00:58:52.520 --> 00:58:54.712 But we are at the front that we're

NOTE Confidence: 0.8688182

00:58:54.712 --> 00:58:56.998 at the leading edge of the wave.

NOTE Confidence: 0.8688182

00:58:57.000 --> 00:58:59.121 It's coming, so I would say that

NOTE Confidence: 0.8688182

00:58:59.121 --> 00:59:01.233 should you should you get a patient

NOTE Confidence: 0.8688182

00:59:01.233 --> 00:59:03.300 coming in with this stuff and you

NOTE Confidence: 0.8688182

00:59:03.300 --> 00:59:05.365 feel unsure about how to handle it,

NOTE Confidence: 0.8688182

00:59:05.370 --> 00:59:07.470 please reach out to your genetic counselor.

NOTE Confidence: 0.8688182

00:59:07.470 --> 00:59:09.258 Colleagues were here to help y'all.  
NOTE Confidence: 0.8688182

00:59:09.260 --> 00:59:10.552 Based in the US,  
NOTE Confidence: 0.8688182

00:59:10.552 --> 00:59:12.490 and there's actually a tool called  
NOTE Confidence: 0.8688182

00:59:12.558 --> 00:59:14.589 Find a [geneticcounselor.com](http://geneticcounselor.com) where  
NOTE Confidence: 0.8688182

00:59:14.589 --> 00:59:16.184 you can literally find genetic  
NOTE Confidence: 0.8688182

00:59:16.184 --> 00:59:18.270 counselors in your local area who could  
NOTE Confidence: 0.8688182

00:59:18.270 --> 00:59:20.027 help you with this sort of thing.  
NOTE Confidence: 0.8688182

00:59:20.030 --> 00:59:23.250 If it was a concern, yeah.  
NOTE Confidence: 0.8688182

00:59:23.250 --> 00:59:23.560 We may  
NOTE Confidence: 0.86023885

00:59:23.560 --> 00:59:24.708 find them, but I don't think they're  
NOTE Confidence: 0.86023885

00:59:24.708 --> 00:59:25.889 going to be as cool as you are.  
NOTE Confidence: 0.8342042

00:59:28.090 --> 00:59:30.250 Play some pretty cool ones. I have to  
NOTE Confidence: 0.8342042

00:59:30.250 --> 00:59:32.028 say to me it looks like we've  
NOTE Confidence: 0.8342042

00:59:32.028 --> 00:59:33.933 gotten to the end of the questions  
NOTE Confidence: 0.8342042

00:59:33.933 --> 00:59:35.920 and we're at the one hour mark.  
NOTE Confidence: 0.8342042

00:59:35.920 --> 00:59:38.629 So so I think maybe that is a good

NOTE Confidence: 0.8342042

00:59:38.629 --> 00:59:40.699 moment to pause and again say.

NOTE Confidence: 0.8342042

00:59:40.700 --> 00:59:43.444 Thank you so much for joining us.

NOTE Confidence: 0.8342042

00:59:43.450 --> 00:59:45.022 What a fantastic presentation.

NOTE Confidence: 0.8342042

00:59:45.022 --> 00:59:47.770 Thank you. Yeah, no problem is very

NOTE Confidence: 0.88725275

00:59:47.770 --> 00:59:52.032 nice to meet. You all have a good day, yeah?