WEBVTT

NOTE duration:"01:00:30"

NOTE recognizability:0.854

NOTE language:en-us

NOTE Confidence: 0.9516657

00:00:00.000 --> 00:00:02.526 Good afternoon, everyone,

NOTE Confidence: 0.9516657

00:00:02.526 --> 00:00:04.456 and welcome to Grand Rounds.

NOTE Confidence: 0.906526867272727

00:00:04.460 --> 00:00:06.065 Please enjoy the coffee and

NOTE Confidence: 0.906526867272727

00:00:06.065 --> 00:00:07.980 take your seats when you can.

NOTE Confidence: 0.906526867272727

00:00:07.980 --> 00:00:09.625 And it's a pleasure to welcome you

NOTE Confidence: 0.906526867272727

00:00:09.625 --> 00:00:11.680 back here to the Cohen for grand rounds.

NOTE Confidence: 0.906526867272727

00:00:11.680 --> 00:00:14.292 And I'd like to just start with echoing

NOTE Confidence: 0.906526867272727

00:00:14.292 --> 00:00:16.488 the sentiment expressed by Linda and

NOTE Confidence: 0.906526867272727

00:00:16.488 --> 00:00:18.797 Tara and their message last week.

NOTE Confidence: 0.906526867272727

00:00:18.800 --> 00:00:20.584 And I want to apologize on behalf of

NOTE Confidence: 0.906526867272727

00:00:20.584 --> 00:00:22.050 the entire Grand Rounds Committee

NOTE Confidence: 0.906526867272727

00:00:22.050 --> 00:00:23.665 for scheduling grand rounds when

NOTE Confidence: 0.906526867272727

00:00:23.665 --> 00:00:25.276 some members of our community

NOTE Confidence: 0.906526867272727

1

00:00:25.276 --> 00:00:26.496 are observing Rosh Hashanah.

00:00:26.500 --> 00:00:28.884 And sure, I would like to wish everyone

00:00:28.884 --> 00:00:31.109 who is observing Rosh Hashanah.

00:00:31.110 --> 00:00:32.808 Uh, Shana tova, if you're watching

00:00:32.808 --> 00:00:34.550 this back on the recording,

00:00:34.550 --> 00:00:36.166 I hope you'll take us up on our

00:00:36.166 --> 00:00:37.817 offer to schedule a virtual meeting

00:00:37.817 --> 00:00:39.605 with Doctor Allen and to connect

00:00:39.663 --> 00:00:41.078 with him about his research.

00:00:41.080 --> 00:00:43.664 And I'd like to thank Doctor Allen for

00:00:43.664 --> 00:00:45.864 making himself available to meet with

00:00:45.864 --> 00:00:48.096 interested faculty later on this week.

00:00:48.100 --> 00:00:49.124 Now, just a reminder.

00:00:49.124 --> 00:00:51.612 Next week we will be back here in

00:00:51.612 --> 00:00:54.349 the Cohen Auditorium for our first

00:00:54.349 --> 00:00:56.630 compassionate care rounds of the semester,

NOTE Confidence: 0.906526867272727

00:00:56.630 --> 00:00:59.367 led by Laurie Cordona, Dr Laurie Cordona.

NOTE Confidence: 0.906526867272727

00:00:59.370 --> 00:01:00.826 So please do join us for that.

NOTE Confidence: 0.906526867272727

00:01:00.830 --> 00:01:01.160 And then.

NOTE Confidence: 0.906526867272727

00:01:01.160 --> 00:01:02.812 So all of our sessions.

NOTE Confidence: 0.906526867272727

00:01:02.812 --> 00:01:05.220 Our ground rounds sessions for the month of

NOTE Confidence: 0.906526867272727

00:01:05.277 --> 00:01:07.725 October will be in person here in the Cohen.

NOTE Confidence: 0.906526867272727

00:01:07.730 --> 00:01:09.953 So join us for a coffee as we come

NOTE Confidence: 0.906526867272727

00:01:09.953 --> 00:01:11.697 together and as we learn together.

NOTE Confidence: 0.906526867272727

00:01:11.700 --> 00:01:13.638 Now today it's a great pleasure

NOTE Confidence: 0.906526867272727

00:01:13.638 --> 00:01:15.490 to introduce our speaker,

NOTE Confidence: 0.906526867272727

00:01:15.490 --> 00:01:16.393 Doctor Nicholas Allen.

NOTE Confidence: 0.906526867272727

00:01:16.393 --> 00:01:18.500 And so Nick is the founding director

NOTE Confidence: 0.906526867272727

00:01:18.558 --> 00:01:20.560 of the Center of Digital Mental Health

NOTE Confidence: 0.906526867272727

00:01:20.560 --> 00:01:22.376 at the University of Oregon where

NOTE Confidence: 0.906526867272727

00:01:22.376 --> 00:01:24.182 he's the Ann Swindells professor in

NOTE Confidence: 0.906526867272727

00:01:24.182 --> 00:01:26.270 clinical psychology and Nick trained in

NOTE Confidence: 0.906526867272727

00:01:26.270 --> 00:01:28.050 clinical psychology in the University

NOTE Confidence: 0.906526867272727

00:01:28.109 --> 00:01:29.493 of Melbourne with postdoctoral

NOTE Confidence: 0.906526867272727

00:01:29.493 --> 00:01:31.569 training here in the United States.

NOTE Confidence: 0.906526867272727

00:01:31.570 --> 00:01:33.285 With Peter Levinson and before

NOTE Confidence: 0.906526867272727

00:01:33.285 --> 00:01:35.359 returning to Melbourne to take a

NOTE Confidence: 0.906526867272727

00:01:35.359 --> 00:01:37.117 faculty position where he worked for

NOTE Confidence: 0.906526867272727

00:01:37.117 --> 00:01:39.382 over 10 years in the National Center

NOTE Confidence: 0.906526867272727

00:01:39.382 --> 00:01:41.374 of Excellence in Youth Mental Health

NOTE Confidence: 0.906526867272727

00:01:41.380 --> 00:01:43.935 before returning to the University of Oregon.

NOTE Confidence: 0.906526867272727

00:01:43.940 --> 00:01:46.495 And as many of you will have

NOTE Confidence: 0.906526867272727

00:01:46.495 --> 00:01:47.782 read in Nick's research,

NOTE Confidence: 0.906526867272727

00:01:47.782 --> 00:01:50.087 he applies innovative digital technologies

NOTE Confidence: 0.906526867272727

00:01:50.087 --> 00:01:52.763 both wearable and mobile to try

NOTE Confidence: 0.906526867272727

00:01:52.763 --> 00:01:54.605 and predict or prevent suicide and

NOTE Confidence: 0.906526867272727

00:01:54.671 --> 00:01:56.831 to better understand risk states in

NOTE Confidence: 0.906526867272727

00:01:56.831 --> 00:01:58.715 the context of adolescent depression.

NOTE Confidence: 0.906526867272727

00:01:58.715 --> 00:02:00.455 He's disseminated his research

NOTE Confidence: 0.906526867272727

00:02:00.455 --> 00:02:01.760 widely in journals.

NOTE Confidence: 0.906526867272727

00:02:01.760 --> 00:02:04.568 Including in Nature in PNAS.

NOTE Confidence: 0.906526867272727

00:02:04.570 --> 00:02:07.566 And in 2019, he founded Kasana Health,

NOTE Confidence: 0.906526867272727

00:02:07.570 --> 00:02:09.740 which is a company whose mission

NOTE Confidence: 0.906526867272727

00:02:09.740 --> 00:02:12.074 is to accelerate the translation of

NOTE Confidence: 0.906526867272727

00:02:12.074 --> 00:02:14.020 digital technologies to improve the

NOTE Confidence: 0.906526867272727

00:02:14.020 --> 00:02:16.362 care of individuals mental health.

NOTE Confidence: 0.906526867272727

00:02:16.362 --> 00:02:17.748 So, with no further ado,

NOTE Confidence: 0.906526867272727

00:02:17.748 --> 00:02:19.950 I'd like you to join me in welcoming Dr.

NOTE Confidence: 0.906526867272727

00:02:19.950 --> 00:02:20.560 Nick Allen.

NOTE Confidence: 0.89522761

00:02:28.560 --> 00:02:29.852 Well, thank you, Kieran,

NOTE Confidence: 0.89522761

00:02:29.852 --> 00:02:31.790 and thank you everyone for making

NOTE Confidence: 0.89522761

00:02:31.853 --> 00:02:33.160 time to come and listen today.

NOTE Confidence: 0.89522761

00:02:33.160 --> 00:02:36.768 I really do appreciate it and let me

NOTE Confidence: 0.89522761

00:02:36.768 --> 00:02:40.360 just get my share screen working.

NOTE Confidence: 0.8419458

00:02:43.380 --> 00:02:47.182 There we go. Good. And it's

NOTE Confidence: 0.8419458

00:02:47.182 --> 00:02:50.150 great to be here at Yale.

NOTE Confidence: 0.8419458

00:02:50.150 --> 00:02:52.243 I, as you can tell I did

NOTE Confidence: 0.8419458

00:02:52.243 --> 00:02:54.558 not grow up in this country.

NOTE Confidence: 0.894499378461538

00:02:56.590 --> 00:02:59.662 So I have a competition with my wife

NOTE Confidence: 0.894499378461538

00:02:59.662 --> 00:03:02.200 about which states we've visited,

NOTE Confidence: 0.894499378461538

00:03:02.200 --> 00:03:04.328 and the definition of visiting a state

NOTE Confidence: 0.894499378461538

00:03:04.328 --> 00:03:06.150 for the purpose of this competition

NOTE Confidence: 0.894499378461538

00:03:06.150 --> 00:03:08.520 is that you have to have slept there.

NOTE Confidence: 0.894499378461538

00:03:08.520 --> 00:03:11.580 And I just ticked off Connecticut.

NOTE Confidence: 0.894499378461538

00:03:11.580 --> 00:03:13.830 So thank you for that.

NOTE Confidence: 0.93208385375

00:03:16.050 --> 00:03:18.386 Anyway, I want to talk to you about

NOTE Confidence: 0.93208385375

00:03:18.390 --> 00:03:20.790 our work on adolescent depression

NOTE Confidence: 0.93208385375

00:03:20.790 --> 00:03:22.678 bringing in digital methods.

NOTE Confidence: 0.93208385375

00:03:22.678 --> 00:03:24.940 Hello? Why is it not responding?

NOTE Confidence: 0.804047696

00:03:28.110 --> 00:03:29.580 There we go. All right.

NOTE Confidence: 0.804047696

00:03:29.580 --> 00:03:30.780 We'll start with the disclosure,

NOTE Confidence: 0.804047696

00:03:30.780 --> 00:03:31.940 which you've already heard,

NOTE Confidence: 0.804047696

00:03:31.940 --> 00:03:34.062 which is that I have founded a

NOTE Confidence: 0.804047696

00:03:34.062 --> 00:03:35.350 company called Kasana Health,

NOTE Confidence: 0.804047696

00:03:35.350 --> 00:03:37.150 a digital mental health company,

NOTE Confidence: 0.804047696

00:03:37.150 --> 00:03:39.020 and I have an equity

NOTE Confidence: 0.804047696

00:03:39.020 --> 00:03:40.516 interest in that company.

NOTE Confidence: 0.916165779

00:03:43.790 --> 00:03:45.782 Now this is not necessarily a

NOTE Confidence: 0.916165779

00:03:45.782 --> 00:03:47.887 smart thing to do, but there's this

NOTE Confidence: 0.916165779

00:03:47.887 --> 00:03:50.029 website and what you can do on this

NOTE Confidence: 0.916165779

00:03:50.029 --> 00:03:52.149 website is you can go and pick a

NOTE Confidence: 0.916165779

00:03:52.149 --> 00:03:53.907 particular date and it will give you.

NOTE Confidence: 0.916165779

00:03:53.910 --> 00:03:56.731 Data on the burden of disease for

NOTE Confidence: 0.916165779

00:03:56.731 --> 00:03:58.470 different categories of disease

NOTE Confidence: 0.916165779

00:03:58.470 --> 00:04:02.718 on different dates and so I.

NOTE Confidence: 0.916165779

00:04:02.720 --> 00:04:03.532 In a crazy experiment,

NOTE Confidence: 0.916165779

00:04:03.532 --> 00:04:04.750 I went and looked at this,

NOTE Confidence: 0.916165779

00:04:04.750 --> 00:04:07.418 and I and I put in the age I was when I

NOTE Confidence: 0.916165779

00:04:07.418 --> 00:04:09.840 graduated with my PhD in clinical psychology.

NOTE Confidence: 0.916165779

00:04:09.840 --> 00:04:13.018 And then I put in today's date.

NOTE Confidence: 0.916165779

00:04:13.020 --> 00:04:15.547 And what this showed is that although

NOTE Confidence: 0.916165779

00:04:15.547 --> 00:04:18.178 we've made really great progress in many

NOTE Confidence: 0.916165779

00:04:18.178 --> 00:04:22.285 areas in medicine with things like this,

NOTE Confidence: 0.916165779

00:04:22.285 --> 00:04:24.910 particularly infectious diseases.

NOTE Confidence: 0.916165779

00:04:24.910 --> 00:04:28.610 Obstetric issues and so forth.

NOTE Confidence: 0.916165779

00:04:28.610 --> 00:04:31.040 Mental health problems have not shifted

NOTE Confidence: 0.916165779

00:04:31.040 --> 00:04:33.845 at all in terms of the burden of disease.

NOTE Confidence: 0.916165779

00:04:33.850 --> 00:04:36.186 Nothing, not a jot,

NOTE Confidence: 0.916165779

00:04:36.186 --> 00:04:39.106 and to make matters worse.

00:04:39.110 --> 00:04:40.790 I have spent my entire career

00:04:40.790 --> 00:04:42.490 focused on mental health and youth,

00:04:42.490 --> 00:04:45.170 so adolescents and young adults.

00:04:45.170 --> 00:04:47.330 And as you can see,

00:04:47.330 --> 00:04:50.122 this is a stage of life where the

00:04:50.122 --> 00:04:52.623 burden of disease of mental disorders

00:04:52.623 --> 00:04:56.020 is at its peak across the lifespan.

00:04:56.020 --> 00:04:58.786 And things are actually getting worse.

00:04:58.790 --> 00:05:01.206 We think for these, this group of people,

00:05:01.210 --> 00:05:06.660 so you can see here some data on depression.

00:05:06.660 --> 00:05:08.645 Symptoms across across time from

00:05:08.645 --> 00:05:10.630 two different studies showing that,

00:05:10.630 --> 00:05:11.676 particularly for.

00:05:11.676 --> 00:05:12.722 Young girls,

00:05:12.722 --> 00:05:15.860 there's an increase in these problems,

00:05:15.860 --> 00:05:17.900 particularly over the last decade

NOTE Confidence: 0.916165779

00:05:17.900 --> 00:05:19.940 and 1/2 to two decades.

NOTE Confidence: 0.916165779

00:05:19.940 --> 00:05:20.890 And moreover,

NOTE Confidence: 0.916165779

00:05:20.890 --> 00:05:23.740 suicide is increasing in this country,

NOTE Confidence: 0.916165779

00:05:23.740 --> 00:05:25.072 not all countries,

NOTE Confidence: 0.916165779

00:05:25.072 --> 00:05:27.736 and has overtaken homicide as the

NOTE Confidence: 0.916165779

00:05:27.736 --> 00:05:30.760 most common as as a as a more common,

NOTE Confidence: 0.916165779

00:05:30.760 --> 00:05:34.295 sorry form of death amongst young people.

NOTE Confidence: 0.916165779

00:05:34.300 --> 00:05:34.950 So.

NOTE Confidence: 0.87285775

00:05:36.960 --> 00:05:39.993 So what have I been doing all this time?

NOTE Confidence: 0.87285775

00:05:40.000 --> 00:05:41.200 I've been working on the problem

NOTE Confidence: 0.87285775

00:05:41.200 --> 00:05:43.260 and we're not making progress.

NOTE Confidence: 0.87285775

00:05:43.260 --> 00:05:45.605 So that's that's a that's a concern.

NOTE Confidence: 0.8762500325

00:05:47.620 --> 00:05:49.672 Now part of the problem is

NOTE Confidence: 0.8762500325

00:05:49.672 --> 00:05:52.209 we know it's a hard problem.

NOTE Confidence: 0.8762500325

00:05:52.210 --> 00:05:55.470 We know it's a wicked problem, so.

NOTE Confidence: 0.8762500325

00:05:55.470 --> 00:05:58.222 And one of the difficulties is it's hard

NOTE Confidence: 0.8762500325

00:05:58.222 --> 00:06:01.047 to know how to scale up our efforts in

NOTE Confidence: 0.8762500325

00:06:01.047 --> 00:06:03.730 a way that will really have impact.

NOTE Confidence: 0.8762500325

00:06:03.730 --> 00:06:05.641 So this diagram here comes from a

NOTE Confidence: 0.8762500325

00:06:05.641 --> 00:06:08.235 report that I was involved in for the

NOTE Confidence: 0.8762500325

00:06:08.235 --> 00:06:09.950 World Innovation Summit for Health,

NOTE Confidence: 0.8762500325

00:06:09.950 --> 00:06:12.106 so on digital technologies and mental health.

NOTE Confidence: 0.8762500325

00:06:12.110 --> 00:06:16.710 And what this this graphic points out is

NOTE Confidence: 0.8762500325

00:06:16.710 --> 00:06:18.977 that if you calculate it a certain way,

NOTE Confidence: 0.8762500325

00:06:18.980 --> 00:06:20.751 you could argue that the current mental

NOTE Confidence: 0.8762500325

00:06:20.751 --> 00:06:23.014 health system is not effective for 90% of

NOTE Confidence: 0.8762500325

00:06:23.014 --> 00:06:25.408 the people with a mental health problem.

NOTE Confidence: 0.8762500325

00:06:25.410 --> 00:06:28.306 The way you get there is you say

NOTE Confidence: 0.8762500325

00:06:28.306 --> 00:06:31.686 OK for every. 10 people in need.

NOTE Confidence: 0.8762500325

00:06:31.686 --> 00:06:34.680 Only four people actually access treatment.

NOTE Confidence: 0.8762500325

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00:06:34.680 --> 00:06:36.168 And for those,

NOTE Confidence: 0.8762500325

00:06:36.168 --> 00:06:38.148 only about 1.5 of those people

NOTE Confidence: 0.8762500325

00:06:38.148 --> 00:06:39.630 will access what we would call

NOTE Confidence: 0.8762500325

00:06:39.685 --> 00:06:41.218 minimally acceptable treatment,

NOTE Confidence: 0.8762500325

00:06:41.220 --> 00:06:44.110 so treatment of adequate quality.

NOTE Confidence: 0.8762500325

00:06:44.110 --> 00:06:45.418 And evidence base.

NOTE Confidence: 0.8762500325

00:06:45.418 --> 00:06:48.034 And then even though evidence based

NOTE Confidence: 0.8762500325

00:06:48.034 --> 00:06:50.747 treatments will get variability and outcome,

NOTE Confidence: 0.8762500325

00:06:50.750 --> 00:06:54.357 So what this highlights is that we have

NOTE Confidence: 0.8762500325

00:06:54.357 --> 00:06:56.134 a number of kind of grand challenges

NOTE Confidence: 0.8762500325

00:06:56.134 --> 00:06:58.428 in the field that we need to solve if

NOTE Confidence: 0.8762500325

00:06:58.428 --> 00:07:00.150 we're really going to bend the curve,

NOTE Confidence: 0.8762500325

00:07:00.150 --> 00:07:02.214 this curve that seems to be

NOTE Confidence: 0.8762500325

00:07:02.214 --> 00:07:04.900 bending in the wrong direction. So.

NOTE Confidence: 0.8762500325

00:07:04.900 --> 00:07:07.960 We need to think about prevention.

NOTE Confidence: 0.8762500325

00:07:07.960 --> 00:07:09.878 So how do we prevent these people

NOTE Confidence: 0.8762500325

00:07:09.878 --> 00:07:11.536 from getting into that first group

NOTE Confidence: 0.8762500325

00:07:11.536 --> 00:07:12.580 in the 1st place?

NOTE Confidence: 0.8762500325

00:07:12.580 --> 00:07:15.202 We need to think about access

NOTE Confidence: 0.8762500325

00:07:15.202 --> 00:07:16.950 to mental health services.

NOTE Confidence: 0.8762500325

00:07:16.950 --> 00:07:19.308 We need to think about the quality of the

NOTE Confidence: 0.8762500325

00:07:19.308 --> 00:07:21.596 mental health services that people receive.

NOTE Confidence: 0.8762500325

00:07:21.600 --> 00:07:23.735 And we also need to improve the

NOTE Confidence: 0.8762500325

00:07:23.735 --> 00:07:25.240 effectiveness of our services.

NOTE Confidence: 0.8762500325

00:07:25.240 --> 00:07:26.780 So this is a nomenclature

NOTE Confidence: 0.8762500325

00:07:26.780 --> 00:07:28.320 that I'll come back to,

NOTE Confidence: 0.8762500325

00:07:28.320 --> 00:07:30.480 but I think is really critical in terms

NOTE Confidence: 0.8762500325

00:07:30.480 --> 00:07:32.351 of thinking about how we solve the

NOTE Confidence: 0.8762500325

00:07:32.351 --> 00:07:34.160 problem and start to make progress.

NOTE Confidence: 0.879771

00:07:37.170 --> 00:07:42.008 So. My own work has been largely

NOTE Confidence: 0.879771

00:07:42.008 --> 00:07:44.239 informed by throughout most of

NOTE Confidence: 0.879771

00:07:44.239 --> 00:07:46.892 my career by an an interest in

NOTE Confidence: 0.879771

00:07:46.892 --> 00:07:49.239 prevention and early intervention.

NOTE Confidence: 0.879771

00:07:49.240 --> 00:07:51.557 And of course, we know that the mental

NOTE Confidence: 0.879771

00:07:51.557 --> 00:07:54.179 health system has traditionally been designed

NOTE Confidence: 0.879771

00:07:54.179 --> 00:07:57.576 to deal with chronic and end state illness,

NOTE Confidence: 0.879771

00:07:57.580 --> 00:08:00.466 to respond to crisis rather than

NOTE Confidence: 0.879771

00:08:00.466 --> 00:08:03.550 to be preventative in orientation.

NOTE Confidence: 0.879771

00:08:03.550 --> 00:08:06.007 And so, so this is a a paradigm shift.

NOTE Confidence: 0.879771

00:08:06.010 --> 00:08:07.735 It's occurring in many contexts

NOTE Confidence: 0.879771

00:08:07.735 --> 00:08:08.770 around the world.

NOTE Confidence: 0.879771

00:08:08.770 --> 00:08:11.146 But this is the one that I've been

NOTE Confidence: 0.879771

00:08:11.146 --> 00:08:12.920 interested in and the and I guess

NOTE Confidence: 0.879771

00:08:12.920 --> 00:08:15.533 if you if you if I think about my

NOTE Confidence: 0.879771

00:08:15.533 --> 00:08:17.328 program of research and clinical

NOTE Confidence: 0.879771

00:08:17.328 --> 00:08:19.290 activity over most of my career,

NOTE Confidence: 0.879771

00:08:19.290 --> 00:08:21.010 you know the argument that I would make

NOTE Confidence: 0.879771

00:08:21.010 --> 00:08:22.694 in my grant applications and things

NOTE Confidence: 0.879771

00:08:22.694 --> 00:08:24.790 like that would go something like this.

NOTE Confidence: 0.879771

00:08:24.790 --> 00:08:27.256 We need to understand what these

NOTE Confidence: 0.879771

00:08:27.256 --> 00:08:29.630 pre morbid indicators of risk are.

NOTE Confidence: 0.879771

00:08:29.630 --> 00:08:32.228 We need to have practical and

NOTE Confidence: 0.879771

00:08:32.228 --> 00:08:33.960 scalable methods for monitoring

NOTE Confidence: 0.879771

00:08:34.040 --> 00:08:35.960 these and screening people.

NOTE Confidence: 0.879771

00:08:35.960 --> 00:08:39.256 We need to have modifiable factors,

NOTE Confidence: 0.879771

00:08:39.256 --> 00:08:41.632 so just because something is a

NOTE Confidence: 0.879771

00:08:41.632 --> 00:08:43.909 predictor doesn't mean it's modifiable.

NOTE Confidence: 0.879771

00:08:43.910 --> 00:08:45.982 And and then we have to have effective

NOTE Confidence: 0.879771

00:08:45.982 --> 00:08:47.769 and scalable methods of intervention,

NOTE Confidence: 0.879771

00:08:47.770 --> 00:08:49.675 early intervention or prevention and

NOTE Confidence: 0.879771

00:08:49.675 --> 00:08:52.620 also it's been very much informed by an

NOTE Confidence: 0.879771

00:08:52.620 --> 00:08:54.482 interest in developmental inflection points.

NOTE Confidence: 0.879771

15

00:08:54.482 --> 00:08:57.905 So are there ways to target our intervention

NOTE Confidence: 0.879771

00:08:57.905 --> 00:09:00.525 efforts developmentally so that we're

NOTE Confidence: 0.879771

00:09:00.525 --> 00:09:02.830 getting a greater impact of the,

NOTE Confidence: 0.879771

00:09:02.830 --> 00:09:04.230 so that we're meeting the,

NOTE Confidence: 0.879771

00:09:04.230 --> 00:09:04.758 the plasticity,

NOTE Confidence: 0.879771

00:09:04.758 --> 00:09:05.550 if you like,

NOTE Confidence: 0.879771

00:09:05.550 --> 00:09:07.236 of the process with an intervention

NOTE Confidence: 0.879771

00:09:07.236 --> 00:09:08.079 that's well timed?

NOTE Confidence: 0.8974320525

00:09:10.700 --> 00:09:11.852 And I want to give you and you

NOTE Confidence: 0.8974320525

00:09:11.852 --> 00:09:13.086 know we did we did lots of work.

NOTE Confidence: 0.8974320525

00:09:13.090 --> 00:09:15.760 We, I've, I've run a couple

NOTE Confidence: 0.8974320525

00:09:15.760 --> 00:09:17.540 of large longitudinal studies

NOTE Confidence: 0.8974320525

00:09:17.540 --> 00:09:19.598 that have looked at a range of

NOTE Confidence: 0.8974320525

00:09:19.598 --> 00:09:21.090 different risk factors including.

NOTE Confidence: 0.66751152625

00:09:23.270 --> 00:09:25.370 You know, brain biomarkers have

NOTE Confidence: 0.66751152625

00:09:25.370 --> 00:09:26.630 obtained through neuroimaging,

NOTE Confidence: 0.66751152625

00:09:26.630 --> 00:09:29.066 genetics, neuroinflammatory processes,

NOTE Confidence: 0.66751152625

00:09:29.066 --> 00:09:30.690 neuroendocrine processes,

NOTE Confidence: 0.66751152625

00:09:30.690 --> 00:09:33.430 puberty as a developmental process.

NOTE Confidence: 0.66751152625

00:09:33.430 --> 00:09:36.438 We've also done a lot of work on

NOTE Confidence: 0.66751152625

00:09:36.438 --> 00:09:38.429 family interactions where we've used

NOTE Confidence: 0.66751152625

00:09:38.430 --> 00:09:39.880 micro social observation of family

NOTE Confidence: 0.66751152625

00:09:39.880 --> 00:09:41.671 interactions in adolescence to try and

NOTE Confidence: 0.66751152625

00:09:41.671 --> 00:09:42.831 understand patterns of interpersonal

NOTE Confidence: 0.66751152625

00:09:42.831 --> 00:09:44.281 relating and how they react.

NOTE Confidence: 0.66751152625

00:09:44.290 --> 00:09:47.018 And so we've, we've we've looked at lots

NOTE Confidence: 0.66751152625

00:09:47.018 --> 00:09:49.165 of different risk factors and there's

NOTE Confidence: 0.66751152625

00:09:49.165 --> 00:09:51.900 many things I could say about all that.

NOTE Confidence: 0.66751152625

00:09:51.900 --> 00:09:53.818 But, but we were searching for this

NOTE Confidence: 0.66751152625

00:09:53.818 --> 00:09:56.032 thing that was a really strong predictor

NOTE Confidence: 0.66751152625

00:09:56.032 --> 00:09:58.036 of outcome and that was modifiable.

NOTE Confidence: 0.66751152625

00:09:58.040 --> 00:09:59.020 And so that's when.

NOTE Confidence: 0.66751152625

00:09:59.020 --> 00:10:01.205 And so as a result of this we

NOTE Confidence: 0.66751152625

00:10:01.205 --> 00:10:02.830 got quite interested in sleep.

NOTE Confidence: 0.66751152625

00:10:02.830 --> 00:10:06.099 Because sleep is is a potent marker

NOTE Confidence: 0.66751152625

00:10:06.099 --> 00:10:11.378 and it is modifiable so as and it's

NOTE Confidence: 0.66751152625

00:10:11.378 --> 00:10:13.424 also developmentally sensitive.

NOTE Confidence: 0.66751152625

00:10:13.430 --> 00:10:14.685 So particularly in early adolescence

NOTE Confidence: 0.66751152625

00:10:14.685 --> 00:10:16.210 as many of you will know,

NOTE Confidence: 0.66751152625

00:10:16.210 --> 00:10:18.718 there's a shift in the timing

NOTE Confidence: 0.66751152625

00:10:18.718 --> 00:10:20.390 of the circadian process.

NOTE Confidence: 0.66751152625

00:10:20.390 --> 00:10:23.138 Such that it's it's pushed later.

NOTE Confidence: 0.66751152625

00:10:23.140 --> 00:10:24.500 And so there's less sleep

NOTE Confidence: 0.66751152625

00:10:24.500 --> 00:10:25.860 drive early in the evening,

NOTE Confidence: 0.66751152625

00:10:25.860 --> 00:10:28.366 there's more sleep drive in the morning.

NOTE Confidence: 0.66751152625

00:10:28.370 --> 00:10:31.835 And that combines with various

NOTE Confidence: 0.66751152625

00:10:31.835 --> 00:10:35.300 lifestyle factors such as homework.

18

00:10:35.300 --> 00:10:38.534 Sporting activity, but also the big one,

00:10:38.540 --> 00:10:40.540 social media, right? Being online.

00:10:40.540 --> 00:10:43.699 The fact is that your peer group is now

00:10:43.699 --> 00:10:46.273 available to you online almost 24/7.

00:10:46.273 --> 00:10:48.412 It's a very.

00:10:48.412 --> 00:10:49.838 Historically unusual.

00:10:49.840 --> 00:10:50.650 Context.

00:10:52.710 --> 00:10:54.830 And then we've got early

00:10:54.830 --> 00:10:56.526 start times for school.

00:10:56.530 --> 00:10:58.234 So it's very easy for adolescents

00:10:58.234 --> 00:11:00.184 to build up quite a lot of

00:11:00.184 --> 00:11:01.439 sleep debt during the week.

00:11:01.440 --> 00:11:03.360 And then they engage in catch

00:11:03.360 --> 00:11:05.280 up sleep on the weekend.

00:11:05.280 --> 00:11:07.998 So they sleep in catch up.

00:11:08.000 --> 00:11:09.836 But of course, then they shift

NOTE Confidence: 0.878527084444444

00:11:09.836 --> 00:11:11.060 the circadian oscillator further,

NOTE Confidence: 0.878527084444444

00:11:11.060 --> 00:11:12.458 and then when Monday comes around,

NOTE Confidence: 0.878527084444444

00:11:12.460 --> 00:11:14.175 they've got what some people

NOTE Confidence: 0.878527084444444

00:11:14.175 --> 00:11:15.781 call social jet lag. Right.

NOTE Confidence: 0.878527084444444

00:11:15.781 --> 00:11:17.167 So they feel awful because they're

NOTE Confidence: 0.878527084444444

00:11:17.167 --> 00:11:18.759 trying to reset the circadian office.

NOTE Confidence: 0.878527084444444

00:11:18.760 --> 00:11:20.062 So even though they've dealt with

NOTE Confidence: 0.878527084444444

00:11:20.062 --> 00:11:21.649 the sleep debt and the sleep drive,

NOTE Confidence: 0.878527084444444

00:11:21.650 --> 00:11:23.210 now there's circadian system

NOTE Confidence: 0.878527084444444

00:11:23.210 --> 00:11:25.160 is telling them hang on.

NOTE Confidence: 0.878527084444444

00:11:25.160 --> 00:11:26.720 This thing is getting up at 7:00 AM

NOTE Confidence: 0.878527084444444

00:11:26.720 --> 00:11:28.148 or whenever it is on Monday morning.

NOTE Confidence: 0.878527084444444

00:11:28.150 --> 00:11:29.398 That doesn't feel good.

NOTE Confidence: 0.90460951875

00:11:33.850 --> 00:11:37.546 So this is a known issue in adolescence.

NOTE Confidence: 0.90460951875

00:11:37.550 --> 00:11:39.548 But the other thing we know about it is

NOTE Confidence: 0.90460951875

00:11:39.548 --> 00:11:41.385 that it's related to a lot of stuff,

NOTE Confidence: 0.90460951875

00:11:41.390 --> 00:11:42.878 a lot of outcomes.

NOTE Confidence: 0.90460951875

00:11:42.878 --> 00:11:45.110 It's a broad transdiagnostic risk factor

NOTE Confidence: 0.90460951875

00:11:45.178 --> 00:11:47.446 for all sorts of difficult outcomes.

NOTE Confidence: 0.90460951875

00:11:47.450 --> 00:11:49.990 Depression, suicide, substance use,

NOTE Confidence: 0.90460951875

00:11:49.990 --> 00:11:53.165 cardiovascular disease later in life,

NOTE Confidence: 0.90460951875

00:11:53.170 --> 00:11:55.060 or risk factors for cardiovascular

NOTE Confidence: 0.90460951875

00:11:55.060 --> 00:11:56.950 disease that emerge during adolescence,

NOTE Confidence: 0.90460951875

00:11:56.950 --> 00:11:57.706 neurocognitive functioning

NOTE Confidence: 0.90460951875

00:11:57.706 --> 00:11:58.840 in school performance.

NOTE Confidence: 0.90460951875

00:11:58.840 --> 00:11:59.990 I won't belabor the point,

NOTE Confidence: 0.90460951875

00:11:59.990 --> 00:12:01.790 I'm sure you get it,

NOTE Confidence: 0.90460951875

00:12:01.790 --> 00:12:03.526 but this is a predictor both in

NOTE Confidence: 0.90460951875

00:12:03.526 --> 00:12:05.350 a distal and in approximal way.

NOTE Confidence: 0.90460951875

00:12:05.350 --> 00:12:06.618 There's some very interesting

NOTE Confidence: 0.90460951875

00:12:06.618 --> 00:12:07.569 studies that have.

NOTE Confidence: 0.90460951875

00:12:07.570 --> 00:12:08.990 Been done on day-to-day variability

NOTE Confidence: 0.90460951875

00:12:08.990 --> 00:12:11.152 and sleep and how it correlates to

NOTE Confidence: 0.90460951875

00:12:11.152 --> 00:12:13.210 day-to-day variability in some of these.

NOTE Confidence: 0.90460951875

00:12:13.210 --> 00:12:15.700 Phenomena.

NOTE Confidence: 0.90460951875

00:12:15.700 --> 00:12:17.340 We also know from experimental

NOTE Confidence: 0.90460951875

00:12:17.340 --> 00:12:19.446 studies such as this one from

NOTE Confidence: 0.90460951875

00:12:19.446 --> 00:12:21.436 Allison Harvey's group at Berkeley,

NOTE Confidence: 0.90460951875

00:12:21.440 --> 00:12:24.710 that by experimentally manipulating sleep

NOTE Confidence: 0.90460951875

00:12:24.710 --> 00:12:28.830 you can actually see effects on mood.

NOTE Confidence: 0.90460951875

00:12:28.830 --> 00:12:29.934 Pretty much immediately.

NOTE Confidence: 0.90460951875

00:12:29.934 --> 00:12:32.142 And there's A and there's a

NOTE Confidence: 0.90460951875

00:12:32.142 --> 00:12:33.568 developmental sensitivity to it.

NOTE Confidence: 0.90460951875

00:12:33.570 --> 00:12:34.848 So if we look over here,

NOTE Confidence: 0.90460951875

00:12:34.850 --> 00:12:37.670 let me see if we get the cursor to wake up,

NOTE Confidence: 0.90460951875

00:12:37.670 --> 00:12:40.428 you can see that the early adolescence.

NOTE Confidence: 0.90460951875

00:12:40.430 --> 00:12:42.805 Are experiencing the much stronger

NOTE Confidence: 0.90460951875

00:12:42.805 --> 00:12:45.180 effect of the sleep deprivation

NOTE Confidence: 0.90460951875

00:12:45.254 --> 00:12:47.629 than the late middle adolescence.

NOTE Confidence: 0.90460951875

00:12:47.630 --> 00:12:50.695 So early adolescence is a

NOTE Confidence: 0.90460951875

00:12:50.695 --> 00:12:52.534 sensitive period developmentally.

NOTE Confidence: 0.90460951875

00:12:52.540 --> 00:12:55.738 So. We're in business facts.

NOTE Confidence: 0.90460951875

00:12:55.738 --> 00:12:58.030 We've got an early risk factor

NOTE Confidence: 0.90460951875

00:12:58.105 --> 00:13:00.328 that's developmentally specific.

NOTE Confidence: 0.90460951875

00:13:00.330 --> 00:13:02.900 It's modifiable.

NOTE Confidence: 0.90460951875

00:13:02.900 --> 00:13:03.122 Well,

NOTE Confidence: 0.90460951875

00:13:03.122 --> 00:13:04.676 here's a bit of data that we

NOTE Confidence: 0.90460951875

00:13:04.676 --> 00:13:05.819 still haven't published yet.

NOTE Confidence: 0.90460951875

00:13:05.820 --> 00:13:06.856 It's in the process,

NOTE Confidence: 0.90460951875

00:13:06.856 --> 00:13:09.415 but this is also looking at an individual

NOTE Confidence: 0.90460951875

00:13:09.415 --> 00:13:10.840 difference called chronophage,

NOTE Confidence: 0.90460951875

23

00:13:10.840 --> 00:13:12.592 so whether you're a night owl

NOTE Confidence: 0.90460951875

00:13:12.592 --> 00:13:13.760 or an early bird.

NOTE Confidence: 0.90460951875

00:13:13.760 --> 00:13:16.400 And what what this I want drag

NOTE Confidence: 0.90460951875

00:13:16.400 --> 00:13:18.000 you through this complex graph,

NOTE Confidence: 0.90460951875

00:13:18.000 --> 00:13:19.555 but what it's basically showing

NOTE Confidence: 0.90460951875

00:13:19.555 --> 00:13:21.518 you is that the chronic phase

NOTE Confidence: 0.90460951875

00:13:21.518 --> 00:13:23.268 prospectively this is a four

NOTE Confidence: 0.90460951875

00:13:23.268 --> 00:13:25.160 wave longitudinal study and the

NOTE Confidence: 0.90460951875

00:13:25.160 --> 00:13:26.868 chronic phase is prospectively

NOTE Confidence: 0.90460951875

00:13:26.868 --> 00:13:28.576 predicting changes in depression.

NOTE Confidence: 0.90460951875

00:13:28.580 --> 00:13:30.799 On two out of the three waves,

NOTE Confidence: 0.90460951875

00:13:30.800 --> 00:13:32.744 depression doesn't predict

NOTE Confidence: 0.90460951875

00:13:32.744 --> 00:13:34.895 chronic phase on any wave.

NOTE Confidence: 0.90460951875

00:13:34.895 --> 00:13:36.605 So we also see that's a

NOTE Confidence: 0.90460951875

00:13:36.605 --> 00:13:38.079 prospective market if you're a,

NOTE Confidence: 0.90460951875

00:13:38.080 --> 00:13:41.098 if you're a an evening phenotype,

24

NOTE Confidence: 0.90460951875

00:13:41.100 --> 00:13:42.920 then you're probably going to have a

NOTE Confidence: 0.90460951875

00:13:42.920 --> 00:13:45.233 a a worse version of that problem I

NOTE Confidence: 0.90460951875

00:13:45.233 --> 00:13:47.050 talked about before of the delayed

NOTE Confidence: 0.90460951875

00:13:47.050 --> 00:13:48.748 sleep and then the sleep debt

NOTE Confidence: 0.90460951875

00:13:48.748 --> 00:13:52.740 and then the the social jet lag.

NOTE Confidence: 0.90460951875

00:13:52.740 --> 00:13:54.970 So.

NOTE Confidence: 0.90460951875

00:13:54.970 --> 00:13:57.840 We did this, we developed an intervention.

NOTE Confidence: 0.90460951875

00:13:57.840 --> 00:13:59.788 And we and we,

NOTE Confidence: 0.90460951875

00:13:59.788 --> 00:14:02.223 it's called the Census project.

NOTE Confidence: 0.90460951875

00:14:02.230 --> 00:14:05.286 This was done when I was in Australia.

NOTE Confidence: 0.90460951875

00:14:05.290 --> 00:14:08.226 And we had a we ran an RCT,

NOTE Confidence: 0.90460951875

00:14:08.230 --> 00:14:11.090 we went into high schools,

NOTE Confidence: 0.90460951875

00:14:11.090 --> 00:14:12.650 what's called high school in Australia.

NOTE Confidence: 0.90460951875

00:14:12.650 --> 00:14:14.862 I should point out in Australia High

NOTE Confidence: 0.90460951875

00:14:14.862 --> 00:14:16.830 School refers to year 7 to to 12.

NOTE Confidence: 0.90460951875

00:14:16.830 --> 00:14:18.552 So that's what what it was actually

NOTE Confidence: 0.90460951875

00:14:18.552 --> 00:14:20.207 more what would be called middle school

NOTE Confidence: 0.90460951875

00:14:20.207 --> 00:14:23.118 in the most of the US and we compared,

NOTE Confidence: 0.90460951875

00:14:23.118 --> 00:14:24.190 we developed,

NOTE Confidence: 0.90460951875

00:14:24.190 --> 00:14:26.668 we it was a group delivered intervention.

NOTE Confidence: 0.90460951875

00:14:26.670 --> 00:14:28.458 We had one that was asleep

NOTE Confidence: 0.90460951875

00:14:28.458 --> 00:14:29.917 intervention and the other one

NOTE Confidence: 0.90460951875

00:14:29.917 --> 00:14:31.550 was a study skills intervention.

NOTE Confidence: 0.90460951875

00:14:31.550 --> 00:14:34.276 So we tried to build something

NOTE Confidence: 0.90460951875

00:14:34.276 --> 00:14:35.728 of a plausible placebo.

NOTE Confidence: 0.90460951875

00:14:35.730 --> 00:14:37.071 For the intervention,

NOTE Confidence: 0.90460951875

00:14:37.071 --> 00:14:39.753 we were very careful to not

NOTE Confidence: 0.90460951875

00:14:39.760 --> 00:14:42.910 communicate to people what the.

NOTE Confidence: 0.90460951875

00:14:42.910 --> 00:14:45.388 What the study was all about.

NOTE Confidence: 0.90460951875

00:14:45.390 --> 00:14:46.694 And and.

NOTE Confidence: 0.90460951875

00:14:46.694 --> 00:14:48.650 In general terms,

NOTE Confidence: 0.894891318333333

00:14:48.650 --> 00:14:50.939 it worked. We were able to see

NOTE Confidence: 0.894891318333333

00:14:50.939 --> 00:14:53.039 that it actually improved sleep.

NOTE Confidence: 0.894891318333333

00:14:53.040 --> 00:14:55.848 So this is a there's a self report of

NOTE Confidence: 0.894891318333333

00:14:55.848 --> 00:14:58.683 sleep and you can see that there are

NOTE Confidence: 0.894891318333333

00:14:58.683 --> 00:15:01.040 variables and you can see that the.

NOTE Confidence: 0.894891318333333

00:15:01.040 --> 00:15:03.518 Global sleep problems were lower in the

NOTE Confidence: 0.894891318333333

00:15:03.518 --> 00:15:05.420 intervention group sleep onset latency.

NOTE Confidence: 0.894891318333333

00:15:05.420 --> 00:15:07.262 So how long it takes you

NOTE Confidence: 0.894891318333333

00:15:07.262 --> 00:15:09.050 to fall off to sleep?

NOTE Confidence: 0.894891318333333

00:15:09.050 --> 00:15:11.290 Shorter in the intervention group

NOTE Confidence: 0.894891318333333

00:15:11.290 --> 00:15:13.082 and daytime sleepiness slower.

NOTE Confidence: 0.894891318333333

00:15:13.090 --> 00:15:15.008 We also see that with objective data,

NOTE Confidence: 0.894891318333333

00:15:15.010 --> 00:15:17.650 so this comes from wrist actigraphy.

NOTE Confidence: 0.894891318333333

00:15:17.650 --> 00:15:19.106 And we can see that once again,

NOTE Confidence: 0.894891318333333

00:15:19.110 --> 00:15:21.588 the sleep onset latency was shorter,

NOTE Confidence: 0.894891318333333

00:15:21.590 --> 00:15:22.430 there was less,

NOTE Confidence: 0.894891318333333

00:15:22.430 --> 00:15:24.390 and there was less variability in sleep.

NOTE Confidence: 0.894891318333333

00:15:24.390 --> 00:15:26.016 So kids became who in the

NOTE Confidence: 0.894891318333333

00:15:26.016 --> 00:15:27.100 intervention group became more

NOTE Confidence: 0.894891318333333

00:15:27.153 --> 00:15:28.848 regular with their sleep behaviour.

NOTE Confidence: 0.894891318333333

00:15:28.850 --> 00:15:31.510 So less variability and sleep onset latency,

NOTE Confidence: 0.894891318333333

00:15:31.510 --> 00:15:33.622 less sleep efficiency variability

NOTE Confidence: 0.894891318333333

00:15:33.622 --> 00:15:36.262 and less variability in bedtimes.

NOTE Confidence: 0.894891318333333

00:15:36.270 --> 00:15:38.422 So that's so good.

NOTE Confidence: 0.894891318333333

00:15:38.422 --> 00:15:41.112 We also find that it.

NOTE Confidence: 0.894891318333333

00:15:41.120 --> 00:15:43.808 They were less anxious.

NOTE Confidence: 0.894891318333333

00:15:43.810 --> 00:15:45.485 They experienced less pre sleep

NOTE Confidence: 0.894891318333333

00:15:45.485 --> 00:15:47.512 arousal or anxiety and they and

NOTE Confidence: 0.894891318333333

00:15:47.512 --> 00:15:48.977 they knew more about sleep.

NOTE Confidence: 0.894891318333333

00:15:48.980 --> 00:15:50.700 Full disclosure, the intervention

NOTE Confidence: 0.894891318333333

00:15:50.700 --> 00:15:52.850 did not impact on depression.

NOTE Confidence: 0.894891318333333

00:15:52.850 --> 00:15:55.510 So we didn't find an effect there.

NOTE Confidence: 0.894891318333333

00:15:55.510 --> 00:16:00.788 So. OK. We've done it.

NOTE Confidence: 0.76198357375

00:16:03.430 --> 00:16:07.310 Take right we found a modifiable risk factor.

NOTE Confidence: 0.76198357375

00:16:07.310 --> 00:16:09.256 We developed an intervention. We tested it.

NOTE Confidence: 0.76198357375

00:16:09.260 --> 00:16:10.736 We published it in good journals.

NOTE Confidence: 0.881876105

00:16:13.560 --> 00:16:16.800 But this was a career crisis for me.

NOTE Confidence: 0.881876105

00:16:16.800 --> 00:16:18.920 And I'll tell you why.

NOTE Confidence: 0.881876105

00:16:18.920 --> 00:16:22.994 Because I could not give it away.

NOTE Confidence: 0.881876105

00:16:23.000 --> 00:16:24.477 How do I get it out there?

NOTE Confidence: 0.887654944285714

00:16:26.550 --> 00:16:29.427 So the problem was, as I said,

NOTE Confidence: 0.887654944285714

00:16:29.430 --> 00:16:32.070 we had found an effective approach,

NOTE Confidence: 0.887654944285714

00:16:32.070 --> 00:16:33.315 potent premorbid refactor,

NOTE Confidence: 0.887654944285714

00:16:33.315 --> 00:16:34.975 a modifier etiological factor,

NOTE Confidence: 0.887654944285714

00:16:34.980 --> 00:16:36.350 and effective measure of intervention.

NOTE Confidence: 0.887654944285714

00:16:36.350 --> 00:16:37.538 We developed it.

NOTE Confidence: 0.887654944285714

29

00:16:37.538 --> 00:16:39.122 It had a plausible

NOTE Confidence: 0.887654944285714

00:16:39.122 --> 00:16:40.310 developmental inflection point.

NOTE Confidence: 0.887654944285714

00:16:40.310 --> 00:16:42.485 But what about practical methods

NOTE Confidence: 0.887654944285714

00:16:42.485 --> 00:16:44.225 of screening and monitoring?

NOTE Confidence: 0.887654944285714

00:16:44.230 --> 00:16:46.206 It was so much effort to go into

NOTE Confidence: 0.887654944285714

00:16:46.206 --> 00:16:47.674 these schools and to screen the

NOTE Confidence: 0.887654944285714

00:16:47.674 --> 00:16:49.580 kids and to find them and then to

NOTE Confidence: 0.887654944285714

00:16:49.580 --> 00:16:51.204 get them to come to the groups.

NOTE Confidence: 0.887654944285714

00:16:51.210 --> 00:16:53.754 I had, you know we had millions of

NOTE Confidence: 0.887654944285714

00:16:53.754 --> 00:16:56.023 dollars of funding for study from

NOTE Confidence: 0.887654944285714

00:16:56.023 --> 00:16:58.771 the Australian NHMRC and and and it

NOTE Confidence: 0.887654944285714

00:16:58.771 --> 00:17:00.805 was tough and people worked hard

NOTE Confidence: 0.887654944285714

00:17:00.805 --> 00:17:03.410 and you know like, so that was it.

NOTE Confidence: 0.887654944285714

00:17:03.410 --> 00:17:04.130 And then secondly,

NOTE Confidence: 0.887654944285714

00:17:04.130 --> 00:17:05.570 how can we deliver this intervention

NOTE Confidence: 0.887654944285714

00:17:05.570 --> 00:17:06.110 at scale?

NOTE Confidence: 0.887654944285714

00:17:06.110 --> 00:17:08.240 It's a group delivered intervention

NOTE Confidence: 0.887654944285714

00:17:08.240 --> 00:17:10.370 making those scheduling the intervention.

NOTE Confidence: 0.887654944285714

00:17:10.370 --> 00:17:11.170 It's kind of about,

NOTE Confidence: 0.887654944285714

00:17:11.170 --> 00:17:12.170 you know the whole thing.

NOTE Confidence: 0.887654944285714

00:17:12.170 --> 00:17:14.924 So so I was sort of like I felt

NOTE Confidence: 0.887654944285714

00:17:14.924 --> 00:17:18.037 like I'd kind of done what I said I

NOTE Confidence: 0.887654944285714

00:17:18.037 --> 00:17:20.425 was going to do and and I you know

NOTE Confidence: 0.887654944285714

00:17:20.425 --> 00:17:21.991 I was still frustrated it wasn't

NOTE Confidence: 0.887654944285714

00:17:21.991 --> 00:17:23.851 having the impact and so that's

NOTE Confidence: 0.887654944285714

00:17:23.851 --> 00:17:25.729 when amongst other things I started

NOTE Confidence: 0.887654944285714

00:17:25.729 --> 00:17:27.505 to get interested in in digital.

NOTE Confidence: 0.887654944285714

00:17:27.510 --> 00:17:30.800 So and and hopefully you'll see why.

NOTE Confidence: 0.887654944285714

00:17:30.800 --> 00:17:32.700 Partly because I was focusing

NOTE Confidence: 0.887654944285714

00:17:32.700 --> 00:17:34.234 on adolescence and adolescence

NOTE Confidence: 0.887654944285714

00:17:34.234 --> 00:17:36.204 obviously used their phones and

NOTE Confidence: 0.887654944285714

00:17:36.204 --> 00:17:37.780 and other digital devices,

NOTE Confidence: 0.887654944285714

00:17:37.780 --> 00:17:40.540 but especially their phones.

NOTE Confidence: 0.887654944285714

00:17:40.540 --> 00:17:41.549 Extensively, right.

NOTE Confidence: 0.887654944285714

00:17:41.549 --> 00:17:43.144 So we've got this adolescence

NOTE Confidence: 0.887654944285714

00:17:43.144 --> 00:17:44.420 is an interesting point.

NOTE Confidence: 0.887654944285714

00:17:44.420 --> 00:17:47.288 We've got this combination of factors.

NOTE Confidence: 0.887654944285714

00:17:47.290 --> 00:17:49.124 We've got the emergence of onset of

NOTE Confidence: 0.887654944285714

00:17:49.124 --> 00:17:51.150 many forms of mental health problem,

NOTE Confidence: 0.887654944285714

00:17:51.150 --> 00:17:52.158 particularly depression.

NOTE Confidence: 0.887654944285714

00:17:52.158 --> 00:17:53.166 Eating disorders,

NOTE Confidence: 0.887654944285714

00:17:53.166 --> 00:17:56.190 substance use disorders later in adolescence,

NOTE Confidence: 0.887654944285714

00:17:56.190 --> 00:17:57.770 various forms of early psychosis.

NOTE Confidence: 0.832646595714286

00:18:00.170 --> 00:18:01.865 And other problems,

NOTE Confidence: 0.832646595714286

00:18:01.865 --> 00:18:05.255 you've got intensive use of mobile

NOTE Confidence: 0.832646595714286

00:18:05.255 --> 00:18:08.120 computing for a particular purpose.

NOTE Confidence: 0.832646595714286

00:18:08.120 --> 00:18:10.642 Social connection. Right.

NOTE Confidence: 0.832646595714286

00:18:10.642 --> 00:18:12.994 It's a device of social connection,

NOTE Confidence: 0.832646595714286

00:18:13.000 --> 00:18:14.300 and there's a developmental

NOTE Confidence: 0.832646595714286

00:18:14.300 --> 00:18:16.250 reason why people at this age

NOTE Confidence: 0.832646595714286

00:18:16.314 --> 00:18:18.198 are so interested in this device,

NOTE Confidence: 0.832646595714286

00:18:18.200 --> 00:18:20.440 because it is a is a tool

NOTE Confidence: 0.832646595714286

00:18:20.440 --> 00:18:21.400 of social connection,

NOTE Confidence: 0.832646595714286

00:18:21.400 --> 00:18:23.280 and we've got high plasticity

NOTE Confidence: 0.832646595714286

00:18:23.280 --> 00:18:25.580 and learning going on as well.

NOTE Confidence: 0.832646595714286

00:18:25.580 --> 00:18:27.746 So I've mentioned this why is

NOTE Confidence: 0.832646595714286

00:18:27.746 --> 00:18:29.190 technology so compelling from

NOTE Confidence: 0.832646595714286

00:18:29.260 --> 00:18:31.100 a developmental point of view?

NOTE Confidence: 0.832646595714286

00:18:31.100 --> 00:18:32.812 Well, it fits with a lot of the

NOTE Confidence: 0.832646595714286

00:18:32.812 --> 00:18:33.919 developmental tasks of adolescence.

NOTE Confidence: 0.832646595714286

00:18:33.920 --> 00:18:35.984 It's about connecting socially.

NOTE Confidence: 0.832646595714286

00:18:35.984 --> 00:18:38.564 You can experiment with identity.

NOTE Confidence: 0.832646595714286

00:18:38.570 --> 00:18:39.566 So you can have, you know,

NOTE Confidence: 0.832646595714286

00:18:39.570 --> 00:18:40.546 as you might know,

NOTE Confidence: 0.832646595714286

00:18:40.546 --> 00:18:41.766 kids often have different accounts

NOTE Confidence: 0.832646595714286

00:18:41.766 --> 00:18:43.212 for different aspects of their

NOTE Confidence: 0.832646595714286

00:18:43.212 --> 00:18:44.368 identity that for instance,

NOTE Confidence: 0.832646595714286

00:18:44.370 --> 00:18:45.816 and the sisters and the, you know,

NOTE Confidence: 0.832646595714286

00:18:45.816 --> 00:18:46.448 that sort of thing.

NOTE Confidence: 0.832646595714286

00:18:46.450 --> 00:18:48.250 So you actually can experiment with

NOTE Confidence: 0.832646595714286

00:18:48.250 --> 00:18:50.553 what you want to present to the

NOTE Confidence: 0.832646595714286

00:18:50.553 --> 00:18:52.283 world and to different audiences.

NOTE Confidence: 0.832646595714286

00:18:52.290 --> 00:18:54.236 You get a lot of peer based

NOTE Confidence: 0.832646595714286

00:18:54.236 --> 00:18:55.070 information and feedback.

NOTE Confidence: 0.832646595714286

00:18:55.070 --> 00:18:58.780 It's private. Especially from parents.

NOTE Confidence: 0.832646595714286

00:18:58.780 --> 00:19:01.960 Adolescents do not care much about

NOTE Confidence: 0.832646595714286

00:19:01.960 --> 00:19:04.557 what Google knows about them.

NOTE Confidence: 0.832646595714286

00:19:04.560 --> 00:19:06.569 But they care a great deal what

NOTE Confidence: 0.832646595714286

00:19:06.569 --> 00:19:08.120 their parents know about them.

NOTE Confidence: 0.832646595714286

00:19:08.120 --> 00:19:08.400 Right.

NOTE Confidence: 0.832646595714286

00:19:08.400 --> 00:19:09.800 And the interesting thing is,

NOTE Confidence: 0.832646595714286

00:19:09.800 --> 00:19:12.239 when I was young, it's a long time ago,

NOTE Confidence: 0.832646595714286

00:19:12.240 --> 00:19:14.536 and I wanted to call up my girlfriend.

NOTE Confidence: 0.832646595714286

00:19:14.540 --> 00:19:17.580 I had to talk to her parents first.

NOTE Confidence: 0.832646595714286

00:19:17.580 --> 00:19:19.672 It was absolutely mortifying.

NOTE Confidence: 0.832646595714286

00:19:19.672 --> 00:19:20.718 And so,

NOTE Confidence: 0.832646595714286

00:19:20.720 --> 00:19:21.896 and they would have to get through,

NOTE Confidence: 0.832646595714286

00:19:21.900 --> 00:19:23.732 run that gauntlet to get to talk to

NOTE Confidence: 0.832646595714286

00:19:23.732 --> 00:19:25.286 her because there was one phone in

NOTE Confidence: 0.832646595714286

00:19:25.286 --> 00:19:27.459 the house and it was connected to the wall,

NOTE Confidence: 0.832646595714286

00:19:27.460 --> 00:19:27.769 right?

NOTE Confidence: 0.832646595714286

00:19:27.769 --> 00:19:30.241 And so this idea that I could have

NOTE Confidence: 0.832646595714286

00:19:30.241 --> 00:19:32.314 directly spoken to her without the

NOTE Confidence: 0.832646595714286

00:19:32.314 --> 00:19:34.497 parents having any clue would have

NOTE Confidence: 0.832646595714286

00:19:34.497 --> 00:19:36.748 been absolutely mind blowing, right?

NOTE Confidence: 0.832646595714286

00:19:36.748 --> 00:19:39.020 So that's pretty important.

NOTE Confidence: 0.832646595714286

00:19:39.020 --> 00:19:40.358 And of course there's a there's

NOTE Confidence: 0.832646595714286

00:19:40.358 --> 00:19:41.684 a literature on board and

NOTE Confidence: 0.832646595714286

00:19:41.684 --> 00:19:42.468 pronouncing adolescence,

NOTE Confidence: 0.832646595714286

00:19:42.470 --> 00:19:45.555 which is also relevant because

NOTE Confidence: 0.832646595714286

00:19:45.555 --> 00:19:48.023 it's a divisive entertainment.

NOTE Confidence: 0.832646595714286

00:19:48.030 --> 00:19:50.074 Now The thing is, this is 1.

NOTE Confidence: 0.832646595714286

00:19:50.080 --> 00:19:52.195 This is a picture for the real old folks,

NOTE Confidence: 0.832646595714286

00:19:52.200 --> 00:19:52.570 but.

NOTE Confidence: 0.6949353

00:19:54.860 --> 00:19:58.366 The. The interesting thing about this device,

NOTE Confidence: 0.6949353

00:19:58.370 --> 00:20:01.345 though, is that it's full of sensors.

NOTE Confidence: 0.6949353

00:20:01.350 --> 00:20:05.478 It's collecting information constantly.

NOTE Confidence: 0.6949353

00:20:05.480 --> 00:20:07.748 And you don't have to do a damn thing

NOTE Confidence: 0.6949353

00:20:07.748 --> 00:20:09.921 to get people to contribute because

NOTE Confidence: 0.6949353

00:20:09.921 --> 00:20:11.576 they're contributing just with their

NOTE Confidence: 0.6949353

00:20:11.576 --> 00:20:13.290 naturalistic use of the device.

NOTE Confidence: 0.6949353

00:20:13.290 --> 00:20:15.274 And of course, this is exactly why Google

NOTE Confidence: 0.6949353

00:20:15.274 --> 00:20:16.969 and Facebook are profitable companies,

NOTE Confidence: 0.6949353

00:20:16.970 --> 00:20:19.226 because what they do is they use that

NOTE Confidence: 0.6949353

00:20:19.226 --> 00:20:22.610 data to target people with advertising.

NOTE Confidence: 0.6949353

00:20:22.610 --> 00:20:26.390 But what if we used it for something good?

NOTE Confidence: 0.6949353

00:20:26.390 --> 00:20:28.406 All right. That's the intriguing possibility.

NOTE Confidence: 0.6949353

00:20:28.410 --> 00:20:30.027 So suddenly we've got this new kind

NOTE Confidence: 0.6949353

00:20:30.027 --> 00:20:32.029 of data in terms of the feasibility,

NOTE Confidence: 0.6949353

00:20:32.030 --> 00:20:33.702 it's objective, it's unobtrusive.

NOTE Confidence: 0.6949353

00:20:33.702 --> 00:20:36.210 It can be collected without bothering

NOTE Confidence: 0.6949353

00:20:36.272 --> 00:20:38.570 people like you do with questionnaires.

NOTE Confidence: 0.6949353

00:20:38.570 --> 00:20:39.166 It's individualized.

NOTE Confidence: 0.6949353

00:20:39.166 --> 00:20:42.010 You can get a very long baseline and an

NOTE Confidence: 0.6949353

37

00:20:42.010 --> 00:20:44.045 individual person understand their personal

NOTE Confidence: 0.6949353

00:20:44.045 --> 00:20:45.890 variability and deviations from it.

NOTE Confidence: 0.6949353

00:20:45.890 --> 00:20:47.202 It can be collected.

NOTE Confidence: 0.6949353

00:20:47.202 --> 00:20:49.470 It creates the possibility of real time

NOTE Confidence: 0.6949353

00:20:49.470 --> 00:20:51.584 responses to things that are going on.

NOTE Confidence: 0.6949353

00:20:51.590 --> 00:20:52.784 And of course,

NOTE Confidence: 0.6949353

00:20:52.784 --> 00:20:55.172 it's highly scalable because most people.

NOTE Confidence: 0.6949353

00:20:55.180 --> 00:20:57.796 Even in most countries around the world now.

NOTE Confidence: 0.6949353

00:20:57.800 --> 00:21:01.069 Have some kind of device like this.

NOTE Confidence: 0.6949353

00:21:01.070 --> 00:21:03.558 So that's pretty intriguing.

NOTE Confidence: 0.6949353

00:21:03.560 --> 00:21:05.420 So what's wrong with self report?

NOTE Confidence: 0.6949353

00:21:05.420 --> 00:21:07.946 This is what we've built our.

NOTE Confidence: 0.6949353

00:21:07.950 --> 00:21:10.750 Our whole business on in mental health and

NOTE Confidence: 0.6949353

00:21:10.750 --> 00:21:12.907 there's nothing wrong with self report.

NOTE Confidence: 0.6949353

00:21:12.910 --> 00:21:14.360 Self report is good data,

NOTE Confidence: 0.6949353

00:21:14.360 --> 00:21:15.215 it's interesting data,

NOTE Confidence: 0.6949353

00:21:15.215 --> 00:21:16.070 it's important data,

NOTE Confidence: 0.6949353

00:21:16.070 --> 00:21:18.830 but it's never ever complete data

NOTE Confidence: 0.6949353

00:21:18.830 --> 00:21:20.768 because we know that whenever we

NOTE Confidence: 0.6949353

00:21:20.768 --> 00:21:22.695 measure something with self report and

NOTE Confidence: 0.6949353

00:21:22.695 --> 00:21:24.704 with objective data at the same time,

NOTE Confidence: 0.6949353

00:21:24.710 --> 00:21:27.030 we find that there is either a very

NOTE Confidence: 0.6949353

00:21:27.030 --> 00:21:29.374 moderate correlation or sometimes

NOTE Confidence: 0.6949353

00:21:29.374 --> 00:21:30.546 no correlation.

NOTE Confidence: 0.6949353

00:21:30.550 --> 00:21:32.293 So we know that from studies such

NOTE Confidence: 0.6949353

00:21:32.293 --> 00:21:33.769 as there's studies on condom use,

NOTE Confidence: 0.6949353

00:21:33.770 --> 00:21:34.878 for example,

NOTE Confidence: 0.6949353

00:21:34.878 --> 00:21:37.648 that have shown this variability.

NOTE Confidence: 0.6949353

00:21:37.650 --> 00:21:37.877 Sleep.

NOTE Confidence: 0.6949353

00:21:37.877 --> 00:21:39.920 This is an area that I know a bit

NOTE Confidence: 0.6949353

00:21:39.982 --> 00:21:41.752 about when we use wrist actigraphy

NOTE Confidence: 0.6949353

00:21:41.752 --> 00:21:43.888 and we compare it to self report

NOTE Confidence: 0.6949353

00:21:43.888 --> 00:21:45.670 substance use where you look at.

NOTE Confidence: 0.6949353

00:21:45.670 --> 00:21:47.355 Say you're in screens compared

NOTE Confidence: 0.6949353

00:21:47.355 --> 00:21:48.366 to self report,

NOTE Confidence: 0.6949353

00:21:48.370 --> 00:21:49.938 you always find you get a different data

NOTE Confidence: 0.6949353

00:21:49.938 --> 00:21:51.690 set from the objective and the subjective,

NOTE Confidence: 0.6949353

00:21:51.690 --> 00:21:54.308 so having them together is really helpful.

NOTE Confidence: 0.6949353

00:21:54.310 --> 00:21:55.702 And like I said,

NOTE Confidence: 0.6949353

00:21:55.702 --> 00:21:58.200 the teenagers are pouring data into this.

NOTE Confidence: 0.6949353

00:21:58.200 --> 00:21:59.670 This is now quite out of date.

NOTE Confidence: 0.6949353

00:21:59.670 --> 00:22:00.902 You know that one of the challenges

NOTE Confidence: 0.6949353

00:22:00.902 --> 00:22:01.979 in this whole world is that.

NOTE Confidence: 0.866830423333333

00:22:04.380 --> 00:22:06.420 2018 is a million years ago.

NOTE Confidence: 0.866830423333333

00:22:06.420 --> 00:22:08.191 In terms of the products that are

NOTE Confidence: 0.866830423333333

00:22:08.191 --> 00:22:10.098 available and how people are using them,

NOTE Confidence: 0.866830423333333

00:22:10.100 --> 00:22:12.417 but even there you can see this

NOTE Confidence: 0.866830423333333

00:22:12.417 --> 00:22:15.424 massive rise in the ownership of

NOTE Confidence: 0.866830423333333

00:22:15.424 --> 00:22:18.354 smartphone engagement with social media.

NOTE Confidence: 0.866830423333333

00:22:18.360 --> 00:22:20.910 The preference of how you like

NOTE Confidence: 0.866830423333333

00:22:20.910 --> 00:22:22.792 to communicate. So texting is

NOTE Confidence: 0.866830423333333

00:22:22.792 --> 00:22:24.856 now more popular than in person.

NOTE Confidence: 0.866830423333333

00:22:24.860 --> 00:22:26.764 Communication, social media and

NOTE Confidence: 0.866830423333333

00:22:26.764 --> 00:22:29.144 video chatting more more popular.

NOTE Confidence: 0.866830423333333

00:22:29.150 --> 00:22:30.338 So as a result of this,

NOTE Confidence: 0.866830423333333

00:22:30.340 --> 00:22:32.452 we developed a research platform called

NOTE Confidence: 0.866830423333333

00:22:32.452 --> 00:22:35.034 EARS that stands for effortless assessment

NOTE Confidence: 0.866830423333333

00:22:35.034 --> 00:22:37.305 research system, but it actually.

NOTE Confidence: 0.866830423333333

00:22:37.305 --> 00:22:40.520 There's also good reason to use the Bunny.

NOTE Confidence: 0.866830423333333

00:22:40.520 --> 00:22:43.058 And so we've got our little Bunny logo there.

NOTE Confidence: 0.866830423333333

00:22:43.060 --> 00:22:44.416 And so it's a, it's a,

NOTE Confidence: 0.866830423333333

00:22:44.420 --> 00:22:46.316 it's a research tool that people can use.

NOTE Confidence: 0.866830423333333

00:22:46.320 --> 00:22:48.528 You can download it onto your

NOTE Confidence: 0.866830423333333

00:22:48.528 --> 00:22:50.000 iOS or Android phone.

NOTE Confidence: 0.866830423333333

00:22:50.000 --> 00:22:51.458 When you when you're on board,

NOTE Confidence: 0.866830423333333

00:22:51.460 --> 00:22:53.276 you get a code from the research study,

NOTE Confidence: 0.866830423333333

00:22:53.280 --> 00:22:54.620 and that tells you that.

NOTE Confidence: 0.866830423333333

00:22:54.620 --> 00:22:56.636 Tells us that you've consented and that

NOTE Confidence: 0.866830423333333

00:22:56.636 --> 00:22:58.838 you're and tells us which study you're in.

NOTE Confidence: 0.866830423333333

00:22:58.840 --> 00:23:01.006 It emphasizes using the phone only,

NOTE Confidence: 0.866830423333333

00:23:01.010 --> 00:23:01.880 so you don't need to.

NOTE Confidence: 0.866830423333333

00:23:01.880 --> 00:23:03.203 No one needs to own a wearable

NOTE Confidence: 0.866830423333333

00:23:03.203 --> 00:23:04.020 or anything like that.

NOTE Confidence: 0.866830423333333

00:23:04.020 --> 00:23:05.397 You don't have to get them out to people,

NOTE Confidence: 0.866830423333333

00:23:05.400 --> 00:23:06.144 active graphs,

NOTE Confidence: 0.866830423333333

00:23:06.144 --> 00:23:08.004 or other weird things that

NOTE Confidence: 0.866830423333333

00:23:08.004 --> 00:23:10.050 you might want them to wear.

NOTE Confidence: 0.866830423333333

00:23:10.050 --> 00:23:12.170 They there's no special instructions,

NOTE Confidence: 0.866830423333333

00:23:12.170 --> 00:23:14.389 just use your phone as you normally

NOTE Confidence: 0.866830423333333

00:23:14.389 --> 00:23:17.678 would and so and it also is is

NOTE Confidence: 0.866830423333333

00:23:17.678 --> 00:23:18.950 collecting data continuously.

NOTE Confidence: 0.866830423333333

00:23:18.950 --> 00:23:20.441 And we can collect a lot of

NOTE Confidence: 0.866830423333333

00:23:20.441 --> 00:23:21.450 different kinds of things.

NOTE Confidence: 0.866830423333333

00:23:21.450 --> 00:23:23.214 There's, you know, there's the raw sensors.

NOTE Confidence: 0.866830423333333

00:23:23.220 --> 00:23:24.750 And then really what we've been

NOTE Confidence: 0.866830423333333

00:23:24.750 --> 00:23:26.881 working on in our research work is

NOTE Confidence: 0.866830423333333

00:23:26.881 --> 00:23:28.646 how to extract meaningful behavioural

NOTE Confidence: 0.866830423333333

00:23:28.646 --> 00:23:30.349 features from the rural sensors.

NOTE Confidence: 0.866830423333333

00:23:30.350 --> 00:23:31.202 So, for example,

NOTE Confidence: 0.866830423333333

00:23:31.202 --> 00:23:33.527 we can look at patterns of phone and

NOTE Confidence: 0.866830423333333

00:23:33.527 --> 00:23:35.315 app usage, language and cognition.

NOTE Confidence: 0.866830423333333

00:23:35.315 --> 00:23:37.805 I'll present you some data on

NOTE Confidence: 0.866830423333333

00:23:37.805 --> 00:23:39.158 that in a second.

NOTE Confidence: 0.866830423333333

00:23:39.160 --> 00:23:40.480 Not as much detail as you'd

NOTE Confidence: 0.866830423333333

00:23:40.480 --> 00:23:41.920 get from a wrist actigraph,

NOTE Confidence: 0.866830423333333

00:23:41.920 --> 00:23:43.910 but you can certainly estimate

NOTE Confidence: 0.866830423333333

00:23:43.910 --> 00:23:46.362 sleep onset and sleep offset from

NOTE Confidence: 0.866830423333333

00:23:46.362 --> 00:23:48.678 the phone usage with some accuracy.

NOTE Confidence: 0.866830423333333

00:23:48.680 --> 00:23:51.392 Had some physical activity,

NOTE Confidence: 0.866830423333333

00:23:51.392 --> 00:23:52.748 geographic location.

NOTE Confidence: 0.866830423333333

00:23:52.750 --> 00:23:54.712 We've done some work on facial

NOTE Confidence: 0.866830423333333

00:23:54.712 --> 00:23:56.020 expression and selfies put

NOTE Confidence: 0.866830423333333

00:23:56.080 --> 00:23:57.856 asterisks on that one bit hard.

NOTE Confidence: 0.866830423333333

00:23:57.860 --> 00:23:59.702 Most people use Snapchat to take

NOTE Confidence: 0.866830423333333

00:23:59.702 --> 00:24:01.228 selfies and Snapchats got its

NOTE Confidence: 0.866830423333333

00:24:01.228 --> 00:24:02.894 own camera that we can't get to,

NOTE Confidence: 0.866830423333333

00:24:02.900 --> 00:24:03.776 so in fact,

NOTE Confidence: 0.866830423333333

00:24:03.776 --> 00:24:05.820 we don't get a lot of selfies

NOTE Confidence: 0.866830423333333

00:24:05.898 --> 00:24:07.038 for that reason.

00:24:07.040 --> 00:24:08.558 What music people are listening to.

00:24:08.560 --> 00:24:11.614 Circadian patterning have some methods for

00:24:11.614 --> 00:24:14.280 collecting acoustic voice data as well.

00:24:14.280 --> 00:24:16.400 So that's a lot of stuff that you can get.

00:24:16.400 --> 00:24:17.080 So I want to,

00:24:17.080 --> 00:24:17.420 you know,

00:24:17.420 --> 00:24:18.967 so we could go on about this

00:24:18.967 --> 00:24:20.309 stuff is a great deal,

00:24:20.310 --> 00:24:22.326 but let me let me focus on one

00:24:22.326 --> 00:24:23.480 particular thing is that we,

00:24:23.480 --> 00:24:25.382 so we've got a method for

00:24:25.382 --> 00:24:27.424 collecting the language that types

00:24:27.424 --> 00:24:29.579 that's typed into the keyboard.

00:24:29.580 --> 00:24:31.458 And every keystroke is marked with

00:24:31.458 --> 00:24:33.717 a time and date stamp and also

00:24:33.717 --> 00:24:35.595 what app is in the foreground,

NOTE Confidence: 0.866830423333333

00:24:35.600 --> 00:24:37.838 so we're able to actually look

NOTE Confidence: 0.866830423333333

00:24:37.838 --> 00:24:39.330 at different language patterns

NOTE Confidence: 0.866830423333333

00:24:39.400 --> 00:24:41.296 in different apps and so forth.

NOTE Confidence: 0.866830423333333

00:24:41.300 --> 00:24:42.970 One thing that you'll notice

NOTE Confidence: 0.866830423333333

00:24:42.970 --> 00:24:44.640 here is this is a,

NOTE Confidence: 0.866830423333333

00:24:44.640 --> 00:24:46.360 this is a youth population.

NOTE Confidence: 0.786788584615385

00:24:46.360 --> 00:24:47.806 This is. There's enormous variability in

NOTE Confidence: 0.786788584615385

00:24:47.806 --> 00:24:49.528 how much people type into their phones.

NOTE Confidence: 0.786788584615385

00:24:49.530 --> 00:24:52.550 Some people type an enormous amount. This is.

NOTE Confidence: 0.786788584615385

00:24:52.550 --> 00:24:54.470 This is average daily communication,

NOTE Confidence: 0.786788584615385

00:24:54.470 --> 00:24:56.678 so we have one participant here

NOTE Confidence: 0.786788584615385

00:24:56.678 --> 00:24:58.763 who's typing in nearly 3000 words

NOTE Confidence: 0.786788584615385

00:24:58.763 --> 00:25:00.778 a day on average. On average.

NOTE Confidence: 0.786788584615385

00:25:00.778 --> 00:25:04.380 And most of them are going into social media.

NOTE Confidence: 0.786788584615385

00:25:04.380 --> 00:25:05.688 The rest are going into SMS.

NOTE Confidence: 0.786788584615385

00:25:05.690 --> 00:25:08.258 Almost nothing in e-mail.

NOTE Confidence: 0.786788584615385

00:25:08.260 --> 00:25:11.540 Right, So e-mail is definitely your

NOTE Confidence: 0.786788584615385

00:25:11.540 --> 00:25:14.860 grandfather's way of communicating.

NOTE Confidence: 0.786788584615385

00:25:14.860 --> 00:25:16.630 So I wanted to show you a little bit of

NOTE Confidence: 0.786788584615385

00:25:16.675 --> 00:25:18.397 data from one of my graduate students,

NOTE Confidence: 0.786788584615385

00:25:18.400 --> 00:25:19.040 Elizabeth Mcneely.

NOTE Confidence: 0.786788584615385

00:25:19.040 --> 00:25:21.280 This is a paper that's in press

NOTE Confidence: 0.786788584615385

00:25:21.280 --> 00:25:23.030 and clinical psych science.

NOTE Confidence: 0.786788584615385

00:25:23.030 --> 00:25:24.752 And this is with a group of

NOTE Confidence: 0.786788584615385

00:25:24.752 --> 00:25:26.229 13 and 14 year olds.

NOTE Confidence: 0.786788584615385

00:25:26.230 --> 00:25:27.664 So there are people who haven't

NOTE Confidence: 0.786788584615385

00:25:27.664 --> 00:25:29.139 had their phone for that long.

NOTE Confidence: 0.786788584615385

00:25:29.140 --> 00:25:33.148 And we we collected these messages and we

NOTE Confidence: 0.786788584615385

00:25:33.148 --> 00:25:36.835 also collected them across a period of time.

NOTE Confidence: 0.786788584615385

00:25:36.840 --> 00:25:38.400 Uh.

NOTE Confidence: 0.786788584615385

47

00:25:38.400 --> 00:25:38.955 And we would.

NOTE Confidence: 0.786788584615385

00:25:38.955 --> 00:25:40.799 And we what we did is we not only

NOTE Confidence: 0.786788584615385

00:25:40.799 --> 00:25:42.293 had baseline data on the sample,

NOTE Confidence: 0.786788584615385

00:25:42.300 --> 00:25:46.060 but we also had daily reports of mood.

NOTE Confidence: 0.786788584615385

00:25:46.060 --> 00:25:48.090 And what we can and we could,

NOTE Confidence: 0.786788584615385

00:25:48.090 --> 00:25:50.778 we restricted it to the the language

NOTE Confidence: 0.786788584615385

00:25:50.778 --> 00:25:53.898 that was typed into social applications,

NOTE Confidence: 0.786788584615385

00:25:53.900 --> 00:25:56.498 so either social media or messaging.

NOTE Confidence: 0.786788584615385

00:25:56.500 --> 00:25:57.240 Instant messaging.

NOTE Confidence: 0.786788584615385

00:25:57.240 --> 00:25:59.460 So wasn't search not that search,

NOTE Confidence: 0.786788584615385

00:25:59.460 --> 00:26:00.600 search date is very interesting,

NOTE Confidence: 0.786788584615385

00:26:00.600 --> 00:26:03.060 but we we did we we didn't include that here,

NOTE Confidence: 0.786788584615385

00:26:03.060 --> 00:26:04.050 but it's different.

NOTE Confidence: 0.786788584615385

00:26:04.050 --> 00:26:05.700 You've got a different audience.

NOTE Confidence: 0.786788584615385

00:26:05.700 --> 00:26:08.340 So a couple of interesting findings.

NOTE Confidence: 0.786788584615385

00:26:08.340 --> 00:26:11.690 First of all, we found that kids who

48

NOTE Confidence: 0.786788584615385

00:26:11.690 --> 00:26:15.225 were had lower levels of of well-being.

NOTE Confidence: 0.786788584615385

00:26:15.230 --> 00:26:18.877 I generally typed more into their phone

NOTE Confidence: 0.786788584615385

00:26:18.880 --> 00:26:20.572 and that that was particularly true

NOTE Confidence: 0.786788584615385

00:26:20.572 --> 00:26:23.148 if we looked at the daily word count.

NOTE Confidence: 0.786788584615385

00:26:23.148 --> 00:26:25.584 There's an interaction here where the

NOTE Confidence: 0.786788584615385

00:26:25.584 --> 00:26:28.582 kids who are have low well-being in

NOTE Confidence: 0.786788584615385

00:26:28.582 --> 00:26:30.994 general are particularly likely to type

NOTE Confidence: 0.786788584615385

00:26:30.994 --> 00:26:33.650 more words when they're having a bad day.

NOTE Confidence: 0.786788584615385

00:26:33.650 --> 00:26:35.810 OK, so there's an interaction

NOTE Confidence: 0.786788584615385

00:26:35.810 --> 00:26:37.106 there that's interesting.

NOTE Confidence: 0.786788584615385

00:26:37.110 --> 00:26:38.176 So overall,

NOTE Confidence: 0.786788584615385

00:26:38.176 --> 00:26:40.308 word count is important.

NOTE Confidence: 0.786788584615385

00:26:40.310 --> 00:26:42.035 First person pronouns turn out

NOTE Confidence: 0.786788584615385

00:26:42.035 --> 00:26:44.270 to be a really important marker,

NOTE Confidence: 0.786788584615385

00:26:44.270 --> 00:26:46.470 and what we're seeing here is once again,

NOTE Confidence: 0.786788584615385

00:26:46.470 --> 00:26:49.598 the kids who are more depressed in general

NOTE Confidence: 0.786788584615385

00:26:49.598 --> 00:26:52.638 have more first person pronoun use and.

NOTE Confidence: 0.786788584615385

00:26:52.640 --> 00:26:55.165 On days when you're reporting

NOTE Confidence: 0.786788584615385

00:26:55.165 --> 00:26:56.680 lower well-being you,

NOTE Confidence: 0.786788584615385

00:26:56.680 --> 00:26:59.360 you tend to use first person pronouns more.

NOTE Confidence: 0.786788584615385

00:26:59.360 --> 00:27:01.241 So what we're seeing here is the the heavy

NOTE Confidence: 0.786788584615385

00:27:01.241 --> 00:27:02.879 line is the average regression line.

NOTE Confidence: 0.786788584615385

00:27:02.880 --> 00:27:04.720 But the interesting thing to me is that

NOTE Confidence: 0.786788584615385

00:27:04.720 --> 00:27:06.558 all these others are the individual

NOTE Confidence: 0.786788584615385

00:27:06.558 --> 00:27:08.223 regression lines for each participant.

NOTE Confidence: 0.786788584615385

00:27:08.230 --> 00:27:10.858 And you can see that that slope is there

NOTE Confidence: 0.786788584615385

00:27:10.858 --> 00:27:13.286 for almost everybody in the sample.

NOTE Confidence: 0.786788584615385

00:27:13.290 --> 00:27:15.980 So it's quite consistent within

NOTE Confidence: 0.786788584615385

00:27:15.980 --> 00:27:17.056 person phenomena.

NOTE Confidence: 0.786788584615385

00:27:17.060 --> 00:27:18.968 The other interesting finding is we

NOTE Confidence: 0.786788584615385

00:27:18.968 --> 00:27:20.600 found that present focused words,

NOTE Confidence: 0.786788584615385

00:27:20.600 --> 00:27:22.424 so present tense.

NOTE Confidence: 0.786788584615385

00:27:22.424 --> 00:27:26.680 Is also more common when you're feeling.

NOTE Confidence: 0.786788584615385

00:27:26.680 --> 00:27:28.336 On when you're a person who

NOTE Confidence: 0.786788584615385

00:27:28.336 --> 00:27:30.140 doesn't feel as well in general,

NOTE Confidence: 0.786788584615385

00:27:30.140 --> 00:27:31.610 and also on days when you're

NOTE Confidence: 0.786788584615385

00:27:31.610 --> 00:27:32.590 not feeling as good.

NOTE Confidence: 0.786625336

00:27:34.660 --> 00:27:35.990 Now you may be interested,

NOTE Confidence: 0.786625336

00:27:35.990 --> 00:27:37.486 you may be wondering why why aren't we

NOTE Confidence: 0.786625336

00:27:37.486 --> 00:27:38.979 looking at positive and negative words?

NOTE Confidence: 0.786625336

00:27:38.980 --> 00:27:40.882 You know, these valence and actually

NOTE Confidence: 0.786625336

00:27:40.882 --> 00:27:43.175 they they don't have as strong a

NOTE Confidence: 0.786625336

00:27:43.175 --> 00:27:44.775 relationship as these patterns do.

NOTE Confidence: 0.786625336

00:27:44.780 --> 00:27:46.478 And in fact this is not,

NOTE Confidence: 0.786625336

00:27:46.480 --> 00:27:48.336 we're not the first people to observe this.

NOTE Confidence: 0.786625336

00:27:48.340 --> 00:27:50.494 This effect with first person pronouns

NOTE Confidence: 0.786625336

00:27:50.494 --> 00:27:52.779 has been well established and published.

NOTE Confidence: 0.786625336

00:27:52.780 --> 00:27:54.804 There's a meta analysis on it in the

NOTE Confidence: 0.786625336

00:27:54.804 --> 00:27:56.082 literature where one of the first

NOTE Confidence: 0.786625336

00:27:56.082 --> 00:27:57.840 to look at it in this kind of data,

NOTE Confidence: 0.786625336

00:27:57.840 --> 00:27:59.268 but in other language data this

NOTE Confidence: 0.786625336

00:27:59.268 --> 00:28:00.220 is a common factor.

NOTE Confidence: 0.786625336

00:28:00.220 --> 00:28:02.708 And in fact there's a there was a

NOTE Confidence: 0.786625336

00:28:02.708 --> 00:28:05.067 really cool paper published by Eric.

NOTE Confidence: 0.786625336

00:28:05.070 --> 00:28:07.686 I'm sure many of you know.

NOTE Confidence: 0.786625336

00:28:07.690 --> 00:28:10.170 In PNAS earlier this year and they were

NOTE Confidence: 0.786625336

00:28:10.170 --> 00:28:12.002 looking at therapy transcripts from

NOTE Confidence: 0.786625336

00:28:12.002 --> 00:28:14.427 I think it's talk. Talks talk space.

NOTE Confidence: 0.786625336

00:28:14.427 --> 00:28:16.950 There's a talk life in the talk space.

NOTE Confidence: 0.786625336

00:28:16.950 --> 00:28:17.946 I get the muddled up sometime.

NOTE Confidence: 0.786625336

00:28:17.950 --> 00:28:20.218 This is a an online text based

NOTE Confidence: 0.786625336

00:28:20.218 --> 00:28:22.214 therapy platform and they found and

00:28:22.214 --> 00:28:24.440 they looked at this concept of what

00:28:24.506 --> 00:28:26.670 they called psychological distance

00:28:26.670 --> 00:28:28.446 and psychological distance was

00:28:28.446 --> 00:28:31.110 the inverse of using first person

00:28:31.180 --> 00:28:33.470 pronouns and present tense words.

00:28:33.470 --> 00:28:34.042 So in other words,

00:28:34.042 --> 00:28:35.160 they saw it as a good thing.

00:28:35.160 --> 00:28:37.128 They saw it as a capacity

00:28:37.128 --> 00:28:39.210 to decentre or to regulate.

00:28:39.210 --> 00:28:43.050 And sure enough, they saw that.

00:28:43.050 --> 00:28:46.536 There was an effect across treatment.

00:28:46.540 --> 00:28:50.240 That symptoms got better.

00:28:50.240 --> 00:28:53.630 Linguistic distance defined as I

00:28:53.630 --> 00:28:55.954 just described. Improved, improved.

00:28:55.954 --> 00:28:59.328 And that there was a relationship between

00:28:59.328 --> 00:29:02.300 this linguistic distance and symptoms,

NOTE Confidence: 0.786625336

00:29:02.300 --> 00:29:05.600 both between subjects and within subjects.

NOTE Confidence: 0.786625336

00:29:05.600 --> 00:29:06.888 So it's cool paper,

NOTE Confidence: 0.786625336

00:29:06.888 --> 00:29:08.176 definitely worth checking out.

NOTE Confidence: 0.786625336

00:29:08.180 --> 00:29:09.489 So that's a kind of a replica,

NOTE Confidence: 0.786625336

00:29:09.490 --> 00:29:09.964 you know,

NOTE Confidence: 0.786625336

00:29:09.964 --> 00:29:11.623 a consistent finding to the one I've

NOTE Confidence: 0.786625336

00:29:11.623 --> 00:29:13.577 just presented you from Elizabeth's work.

NOTE Confidence: 0.786625336

00:29:13.580 --> 00:29:16.244 So the interesting thing about this is that.

NOTE Confidence: 0.905051601818182

00:29:19.640 --> 00:29:22.592 One of the unique affordances of this kind

NOTE Confidence: 0.905051601818182

00:29:22.592 --> 00:29:26.033 of approach is the ability to actually look

NOTE Confidence: 0.905051601818182

00:29:26.033 --> 00:29:28.470 at day-to-day variability within a person.

NOTE Confidence: 0.905051601818182

00:29:28.470 --> 00:29:30.591 And this turns out to be something

NOTE Confidence: 0.905051601818182

00:29:30.591 --> 00:29:32.959 that's quite of interest to clinicians.

NOTE Confidence: 0.905051601818182

00:29:32.960 --> 00:29:37.622 This is from a blog that they published on.

NOTE Confidence: 0.905051601818182

00:29:37.630 --> 00:29:40.968 Google X, which is their research arm and

NOTE Confidence: 0.905051601818182

00:29:40.968 --> 00:29:44.163 what they were doing this work on a on an

NOTE Confidence: 0.905051601818182

00:29:44.163 --> 00:29:46.587 EEG system that would diagnose depression.

NOTE Confidence: 0.905051601818182

00:29:46.590 --> 00:29:47.974 And as part of that they went out

NOTE Confidence: 0.905051601818182

00:29:47.974 --> 00:29:49.228 and they talked to clinicians,

NOTE Confidence: 0.905051601818182

00:29:49.230 --> 00:29:50.796 they did what they called in

NOTE Confidence: 0.905051601818182

00:29:50.796 --> 00:29:51.579 business customer discovery.

NOTE Confidence: 0.905051601818182

00:29:51.580 --> 00:29:52.784 So they went and talked to the

NOTE Confidence: 0.905051601818182

00:29:52.784 --> 00:29:53.930 clinicians and they said, you know,

NOTE Confidence: 0.905051601818182

00:29:53.930 --> 00:29:55.610 would you like to have this EEG system

NOTE Confidence: 0.905051601818182

00:29:55.654 --> 00:29:57.229 that could help diagnose depression.

NOTE Confidence: 0.905051601818182

00:29:57.230 --> 00:29:58.800 And interesting thing was most

NOTE Confidence: 0.905051601818182

00:29:58.800 --> 00:30:00.370 of them said not really.

NOTE Confidence: 0.905051601818182

00:30:00.370 --> 00:30:01.930 Because I actually, I'm pretty,

NOTE Confidence: 0.905051601818182

00:30:01.930 --> 00:30:03.355 I think I'm pretty good

NOTE Confidence: 0.905051601818182

00:30:03.355 --> 00:30:04.210 at diagnosing depression.

NOTE Confidence: 0.905051601818182

00:30:04.210 --> 00:30:05.830 You know, I've been doing it for a long time.

NOTE Confidence: 0.905051601818182

00:30:05.830 --> 00:30:07.384 I've been trained well to do it,

NOTE Confidence: 0.905051601818182

00:30:07.390 --> 00:30:09.940 you know, and it's it's it's, you know,

NOTE Confidence: 0.905051601818182

00:30:09.940 --> 00:30:11.725 probably in some ways not that hard,

NOTE Confidence: 0.905051601818182

00:30:11.730 --> 00:30:13.730 you know, to diagnose depression.

NOTE Confidence: 0.905051601818182

00:30:13.730 --> 00:30:14.686 And so they said,

NOTE Confidence: 0.905051601818182

00:30:14.686 --> 00:30:16.663 but what we would really love and this

NOTE Confidence: 0.905051601818182

00:30:16.663 --> 00:30:18.794 is where we really have a problem, is.

NOTE Confidence: 0.905051601818182

00:30:18.794 --> 00:30:20.914 Using technology as a tool

NOTE Confidence: 0.905051601818182

00:30:20.914 --> 00:30:22.186 for ongoing monitoring,

NOTE Confidence: 0.905051601818182

00:30:22.190 --> 00:30:24.110 knowing what's working and not working,

NOTE Confidence: 0.905051601818182

00:30:24.110 --> 00:30:25.494 not what's not working.

NOTE Confidence: 0.905051601818182

00:30:25.494 --> 00:30:27.570 How is my patient doing now?

NOTE Confidence: 0.905051601818182

00:30:27.570 --> 00:30:28.293 How are they?

NOTE Confidence: 0.905051601818182

00:30:28.293 --> 00:30:30.170 How is their trajectory of what's going on?

NOTE Confidence: 0.905051601818182

00:30:30.170 --> 00:30:32.706 Do I need to change my therapeutic strategy?

00:30:32.710 --> 00:30:33.196 You know,

00:30:33.196 --> 00:30:34.654 things like that is actually where

00:30:34.654 --> 00:30:35.929 the clinicians were much more

00:30:35.929 --> 00:30:37.164 interested than that first thing.

00:30:37.170 --> 00:30:39.699 And so we've got a technique here that at

00:30:39.699 --> 00:30:42.139 least potentially can contribute to that.

00:30:42.140 --> 00:30:44.244 So let's go back to our grand challenges.

00:30:46.370 --> 00:30:50.450 Prevention, access. Quality, effectiveness.

00:30:50.450 --> 00:30:53.105 And the fact is, if you read most things

00:30:53.105 --> 00:30:55.957 that people write about digital technology,

00:30:55.960 --> 00:30:58.024 they're going to say, why is it exciting

00:30:58.024 --> 00:30:59.838 in mental health services as well?

00:30:59.840 --> 00:31:02.829 Because we can address the access problem.

00:31:02.830 --> 00:31:04.202 All right, so we can give people

00:31:04.202 --> 00:31:06.130 access an app, you can download it,

00:31:06.130 --> 00:31:07.470 everyone can have access.

NOTE Confidence: 0.790470975

00:31:07.470 --> 00:31:08.830 We can send it all around the world.

NOTE Confidence: 0.790470975

00:31:08.830 --> 00:31:09.478 Software solution,

NOTE Confidence: 0.790470975

00:31:09.478 --> 00:31:13.620 take the human out of the loop. Brilliant.

NOTE Confidence: 0.790470975

00:31:13.620 --> 00:31:17.385 There's a problem. First of all.

NOTE Confidence: 0.790470975

00:31:17.385 --> 00:31:20.310 We know that increasing access.

NOTE Confidence: 0.790470975

00:31:20.310 --> 00:31:23.719 In and of itself does not help.

NOTE Confidence: 0.790470975

00:31:23.720 --> 00:31:24.668 And how do we know that?

NOTE Confidence: 0.790470975

00:31:24.670 --> 00:31:27.974 Because in high income countries like the US,

NOTE Confidence: 0.790470975

00:31:27.980 --> 00:31:30.500 the UK, Australia and Canada,

NOTE Confidence: 0.790470975

00:31:30.500 --> 00:31:32.940 there has been a massive increase in access

NOTE Confidence: 0.790470975

00:31:32.940 --> 00:31:35.300 to mental health services over the last

NOTE Confidence: 0.790470975

00:31:35.300 --> 00:31:38.564 few decades with no concurrent reduction.

NOTE Confidence: 0.790470975

00:31:38.564 --> 00:31:43.040 In the burden of disease associated with.

NOTE Confidence: 0.790470975

00:31:43.040 --> 00:31:44.483 Mental health problems,

NOTE Confidence: 0.790470975

00:31:44.483 --> 00:31:47.369 so we're pouring more money in.

00:31:47.370 --> 00:31:49.806 It's a good thing I've supported.

00:31:49.810 --> 00:31:52.309 But we're not getting a better outcome.

00:31:52.310 --> 00:31:54.158 So access itself is not a solution

00:31:54.158 --> 00:31:56.420 and when you come to digital products,

00:31:56.420 --> 00:31:58.513 there's a very clear reason for that

00:31:58.513 --> 00:32:00.997 is that is that they're not sticky.

00:32:01.000 --> 00:32:02.856 So this is a curve of how many

00:32:02.856 --> 00:32:04.100 people keep using an app.

00:32:04.100 --> 00:32:05.460 This is mental health apps

00:32:05.460 --> 00:32:07.120 specifically over a period of time,

00:32:07.120 --> 00:32:09.757 and you can see within three to four days,

00:32:09.760 --> 00:32:12.376 80% of your people you've lost.

00:32:12.380 --> 00:32:13.964 So this is The Dirty little

00:32:13.964 --> 00:32:15.360 secret of digital health, right?

00:32:15.360 --> 00:32:17.400 The fact is that you're actually,

00:32:17.400 --> 00:32:19.840 it's what David Moore has.

NOTE Confidence: 0.790470975

00:32:19.840 --> 00:32:22.200 Brilliant on this issue calls

NOTE Confidence: 0.790470975

00:32:22.200 --> 00:32:23.616 the denominator problem.

NOTE Confidence: 0.790470975

00:32:23.620 --> 00:32:24.094 You know,

NOTE Confidence: 0.790470975

00:32:24.094 --> 00:32:26.480 when you run an RCT with a digital product,

NOTE Confidence: 0.790470975

00:32:26.480 --> 00:32:28.020 you can show effectiveness,

NOTE Confidence: 0.790470975

00:32:28.020 --> 00:32:30.330 but often they don't tell us

NOTE Confidence: 0.790470975

00:32:30.400 --> 00:32:32.596 how many people wouldn't use it.

NOTE Confidence: 0.790470975

00:32:32.600 --> 00:32:35.360 And so that's a big problem.

NOTE Confidence: 0.790470975

00:32:35.360 --> 00:32:37.616 We do see a little signal over here.

NOTE Confidence: 0.790470975

00:32:37.620 --> 00:32:38.920 See this Gray line?

NOTE Confidence: 0.790470975

00:32:38.920 --> 00:32:41.330 These are the apps that have a

NOTE Confidence: 0.790470975

00:32:41.330 --> 00:32:42.949 social element. Oh my goodness.

NOTE Confidence: 0.8314666725

00:32:45.180 --> 00:32:47.120 Someone's gonna go away.

NOTE Confidence: 0.60635614

00:32:49.830 --> 00:32:52.359 Umm. Yeah. And anyway,

NOTE Confidence: 0.60635614

00:32:52.359 --> 00:32:55.259 so we'll move along and so this and so we.

NOTE Confidence: 0.60635614

00:32:55.260 --> 00:32:57.484 And so one of the themes that's coming

NOTE Confidence: 0.60635614

00:32:57.484 --> 00:32:59.149 through with digital technology and

NOTE Confidence: 0.60635614

00:32:59.149 --> 00:33:01.243 it's usefulness and mental health is

NOTE Confidence: 0.60635614

00:33:01.243 --> 00:33:03.861 that having a human in the loop in

NOTE Confidence: 0.60635614

00:33:03.861 --> 00:33:06.597 some way seems to be really important.

NOTE Confidence: 0.60635614

00:33:06.600 --> 00:33:08.496 It seems to make a difference

NOTE Confidence: 0.60635614

00:33:08.496 --> 00:33:09.760 to effectiveness and engagement

NOTE Confidence: 0.60635614

00:33:09.814 --> 00:33:11.014 and of course, effectiveness,

NOTE Confidence: 0.60635614

00:33:11.014 --> 00:33:13.858 engagement are related to each other.

NOTE Confidence: 0.60635614

00:33:13.860 --> 00:33:14.850 So we can't, you know,

NOTE Confidence: 0.60635614

00:33:14.850 --> 00:33:17.118 so I think we need to reframe the problem

NOTE Confidence: 0.60635614

00:33:17.118 --> 00:33:18.956 from one where we're saying like,

NOTE Confidence: 0.60635614

00:33:18.960 --> 00:33:21.468 how can we just scale things

NOTE Confidence: 0.60635614

00:33:21.468 --> 00:33:23.590 and get the humans out.

NOTE Confidence: 0.60635614

00:33:23.590 --> 00:33:24.646 To say like,

NOTE Confidence: 0.60635614

00:33:24.646 --> 00:33:27.442 let's try and understand what the humans are

NOTE Confidence: 0.60635614

00:33:27.442 --> 00:33:30.310 trying to do and help them to do it better.

NOTE Confidence: 0.60635614

00:33:30.310 --> 00:33:31.418 And that's, I think,

NOTE Confidence: 0.60635614

00:33:31.418 --> 00:33:33.494 a better version of how we can

NOTE Confidence: 0.60635614

00:33:33.494 --> 00:33:34.906 move forward with digital.

NOTE Confidence: 0.60635614

00:33:34.910 --> 00:33:38.570 Hello, I've lost my.

NOTE Confidence: 0.60635614

00:33:38.570 --> 00:33:41.162 Kinko's got rid of my control of the screen.

NOTE Confidence: 0.60635614

00:33:41.170 --> 00:33:43.510 OK, so back to our problems.

NOTE Confidence: 0.60635614

00:33:43.510 --> 00:33:45.190 So we really do need to solve

NOTE Confidence: 0.60635614

00:33:45.190 --> 00:33:46.313 the quality and effectiveness

NOTE Confidence: 0.60635614

00:33:46.313 --> 00:33:48.023 problem along with the access

NOTE Confidence: 0.60635614

00:33:48.023 --> 00:33:49.770 problem or we're not doing,

NOTE Confidence: 0.60635614

00:33:49.770 --> 00:33:51.130 we're not having much impact.

NOTE Confidence: 0.912068387272727

00:33:53.760 --> 00:33:55.770 And, you know, one of the

NOTE Confidence: 0.912068387272727

00:33:55.770 --> 00:33:59.060 interesting things is that we. Umm.

NOTE Confidence: 0.912068387272727

00:33:59.060 --> 00:34:01.832 This is term they use in digital

00:34:01.832 --> 00:34:03.660 technology called scudo morphism

00:34:03.660 --> 00:34:05.620 is anyone heard that skeuomorphism

00:34:05.620 --> 00:34:07.914 is what Apple products used to

00:34:07.914 --> 00:34:09.540 do when they when they had,

00:34:09.540 --> 00:34:10.998 when they gave you a calendar,

00:34:11.000 --> 00:34:12.968 the little icon for calendar looked

00:34:12.968 --> 00:34:14.693 like a literal calendar, right.

00:34:14.693 --> 00:34:16.758 And so that's that's that's.

00:34:16.760 --> 00:34:18.800 And so in some ways,

00:34:18.800 --> 00:34:21.077 one of the problems we have with digital is

00:34:21.077 --> 00:34:23.229 that we're we're using skewed amorphism.

00:34:23.230 --> 00:34:24.120 This is not my idea.

00:34:24.120 --> 00:34:25.456 This is Stephen Schuler,

00:34:25.456 --> 00:34:26.458 University of California,

00:34:26.460 --> 00:34:29.460 Irvine made this point in a brilliant paper.

00:34:29.460 --> 00:34:31.194 We're we're saying like what we

NOTE Confidence: 0.912068387272727

00:34:31.194 --> 00:34:33.530 need to do with digital is make

NOTE Confidence: 0.912068387272727

00:34:33.530 --> 00:34:35.380 it like a clinical consultation,

NOTE Confidence: 0.912068387272727

00:34:35.380 --> 00:34:37.578 like make it like the way we

NOTE Confidence: 0.912068387272727

00:34:37.578 --> 00:34:38.520 currently do things.

NOTE Confidence: 0.912068387272727

00:34:38.520 --> 00:34:40.732 But the but the thing about that

NOTE Confidence: 0.912068387272727

00:34:40.732 --> 00:34:42.985 is that actually the way we do

NOTE Confidence: 0.912068387272727

00:34:42.985 --> 00:34:44.530 things now actually might be

NOTE Confidence: 0.912068387272727

00:34:44.530 --> 00:34:46.653 quite poorly matched to the actual

NOTE Confidence: 0.912068387272727

00:34:46.653 --> 00:34:48.393 thing we're trying to do.

NOTE Confidence: 0.912068387272727

00:34:48.400 --> 00:34:49.793 Let me explain what I make that

NOTE Confidence: 0.912068387272727

00:34:49.793 --> 00:34:51.200 didn't come out very clear at all.

NOTE Confidence: 0.912068387272727

00:34:51.200 --> 00:34:52.816 Let me explain what I'm trying to mean.

NOTE Confidence: 0.912068387272727

00:34:52.820 --> 00:34:55.400 We know.

NOTE Confidence: 0.912068387272727

00:34:55.400 --> 00:34:57.755 Pretty well what the principles

NOTE Confidence: 0.912068387272727

00:34:57.755 --> 00:34:59.639 of behavior change are.

64

NOTE Confidence: 0.912068387272727

00:34:59.640 --> 00:35:00.992 It's something like this.

NOTE Confidence: 0.912068387272727

00:35:00.992 --> 00:35:03.020 You start with a clear description

NOTE Confidence: 0.912068387272727

00:35:03.077 --> 00:35:04.876 of the new skills to be learned,

NOTE Confidence: 0.912068387272727

00:35:04.880 --> 00:35:07.043 along with modeling of those skills so

NOTE Confidence: 0.912068387272727

00:35:07.043 --> 00:35:09.240 present to know what they want to do.

NOTE Confidence: 0.912068387272727

00:35:09.240 --> 00:35:11.160 Then they've got to have chances

NOTE Confidence: 0.912068387272727

00:35:11.160 --> 00:35:11.800 for practice,

NOTE Confidence: 0.912068387272727

00:35:11.800 --> 00:35:13.292 repeated practice with timely

NOTE Confidence: 0.912068387272727

00:35:13.292 --> 00:35:15.530 feedback so that they can actually

NOTE Confidence: 0.912068387272727

00:35:15.598 --> 00:35:16.998 keep trying and failing,

NOTE Confidence: 0.912068387272727

00:35:17.000 --> 00:35:18.284 but getting good feedback,

NOTE Confidence: 0.912068387272727

00:35:18.284 --> 00:35:19.889 and so that they learn.

NOTE Confidence: 0.912068387272727

00:35:19.890 --> 00:35:21.710 And then you have to have specific

NOTE Confidence: 0.912068387272727

00:35:21.710 --> 00:35:23.118 procedures to make sure that

NOTE Confidence: 0.912068387272727

00:35:23.118 --> 00:35:24.563 the skill generalizes to the

NOTE Confidence: 0.912068387272727

00:35:24.563 --> 00:35:25.780 environment you care about.

NOTE Confidence: 0.912068387272727

00:35:25.780 --> 00:35:27.579 So it doesn't matter whether it's throwing

NOTE Confidence: 0.912068387272727

00:35:27.579 --> 00:35:29.598 a football or driving a car or whatever.

NOTE Confidence: 0.912068387272727

00:35:29.600 --> 00:35:30.551 The skill is.

NOTE Confidence: 0.912068387272727

00:35:30.551 --> 00:35:32.453 The formula is something like this,

NOTE Confidence: 0.912068387272727

00:35:32.460 --> 00:35:33.500 and the things that we're

NOTE Confidence: 0.912068387272727

00:35:33.500 --> 00:35:34.540 actually good at teaching people,

NOTE Confidence: 0.912068387272727

00:35:34.540 --> 00:35:37.378 we tend to follow this formula.

NOTE Confidence: 0.912068387272727

00:35:37.380 --> 00:35:40.330 Now I put it to you that the current way.

NOTE Confidence: 0.912068387272727

00:35:40.330 --> 00:35:43.298 We do psychotherapy is a little bit

NOTE Confidence: 0.912068387272727

00:35:43.298 --> 00:35:45.909 like a football coach who says?

NOTE Confidence: 0.912068387272727

00:35:45.910 --> 00:35:48.646 Listen, I'm not going to come to the game.

NOTE Confidence: 0.912068387272727

00:35:48.650 --> 00:35:50.510 And I'm not even gonna watch

NOTE Confidence: 0.912068387272727

00:35:50.510 --> 00:35:51.750 tape of the game.

NOTE Confidence: 0.912068387272727

00:35:51.750 --> 00:35:52.934 What I'm going to do is I'm going

NOTE Confidence: 0.912068387272727

00:35:52.934 --> 00:35:54.227 to sit in my office and I'm going

NOTE Confidence: 0.912068387272727

00:35:54.227 --> 00:35:55.515 to have you come and tell me once

NOTE Confidence: 0.912068387272727

00:35:55.515 --> 00:35:56.763 a week how you think you played.

NOTE Confidence: 0.912068387272727

00:35:56.763 --> 00:35:59.094 And then I'll give you some verbal

NOTE Confidence: 0.912068387272727

00:35:59.094 --> 00:36:00.571 suggestions about how you could

NOTE Confidence: 0.912068387272727

00:36:00.571 --> 00:36:02.071 play better and then you can

NOTE Confidence: 0.912068387272727

00:36:02.071 --> 00:36:03.944 go out and play again and then

NOTE Confidence: 0.912068387272727

00:36:03.944 --> 00:36:05.758 come back next week and repeat,

NOTE Confidence: 0.912068387272727

00:36:05.758 --> 00:36:07.231 repeat the process, right.

NOTE Confidence: 0.912068387272727

00:36:07.231 --> 00:36:07.873 So that's.

NOTE Confidence: 0.912068387272727

00:36:07.873 --> 00:36:09.157 So in that sense,

NOTE Confidence: 0.912068387272727

00:36:09.160 --> 00:36:10.903 what I'm trying to point out is

NOTE Confidence: 0.912068387272727

00:36:10.903 --> 00:36:12.854 the way we deliver services now

NOTE Confidence: 0.912068387272727

00:36:12.854 --> 00:36:14.749 in these kind of appointments,

NOTE Confidence: 0.912068387272727

00:36:14.750 --> 00:36:16.442 punctuated appointments is actually

NOTE Confidence: 0.912068387272727

00:36:16.442 --> 00:36:19.220 very poorly matched with the process of.

NOTE Confidence: 0.912068387272727

00:36:19.220 --> 00:36:20.612 Behaviour change with what we know

NOTE Confidence: 0.912068387272727

00:36:20.612 --> 00:36:22.240 about the fundamentals of behaviour change.

NOTE Confidence: 0.866886452777778

00:36:24.360 --> 00:36:26.432 So this is where I think digital

NOTE Confidence: 0.866886452777778

00:36:26.432 --> 00:36:28.723 technology has an affordance to actually

NOTE Confidence: 0.866886452777778

00:36:28.723 --> 00:36:30.948 think about doing things differently.

NOTE Confidence: 0.866886452777778

00:36:30.950 --> 00:36:32.888 Because we can take that therapy

NOTE Confidence: 0.866886452777778

00:36:32.888 --> 00:36:34.690 process out of the office,

NOTE Confidence: 0.866886452777778

00:36:34.690 --> 00:36:35.954 into People's Daily lives,

NOTE Confidence: 0.866886452777778

00:36:35.954 --> 00:36:38.910 and it can be portable and it can be in

NOTE Confidence: 0.866886452777778

00:36:38.910 --> 00:36:41.009 your pocket and all that kind of thing.

NOTE Confidence: 0.866886452777778

00:36:41.010 --> 00:36:44.691 So we've been working on a long after years

NOTE Confidence: 0.866886452777778

00:36:44.691 --> 00:36:48.105 which is still being used by many people,

NOTE Confidence: 0.866886452777778

00:36:48.110 --> 00:36:51.996 we've developed a new system called Vera.

NOTE Confidence: 0.866886452777778

00:36:51.996 --> 00:36:53.568 And what this is,

NOTE Confidence: 0.866886452777778

00:36:53.570 --> 00:36:56.450 is it's a system that's designed to bring

NOTE Confidence: 0.866886452777778

00:36:56.450 --> 00:36:58.759 this capacity for continuous remote

NOTE Confidence: 0.866886452777778

00:36:58.759 --> 00:37:01.294 patient monitoring in behavioral health.

NOTE Confidence: 0.866886452777778

00:37:01.300 --> 00:37:04.100 And the capacity for ongoing

NOTE Confidence: 0.866886452777778

00:37:04.100 --> 00:37:06.340 continuous behaviour change support

NOTE Confidence: 0.866886452777778

00:37:06.340 --> 00:37:09.247 as a tool set to the clinician

NOTE Confidence: 0.866886452777778

00:37:09.250 --> 00:37:11.410 and so it goes kind of like this.

NOTE Confidence: 0.866886452777778

00:37:11.410 --> 00:37:14.910 You have this patient app.

NOTE Confidence: 0.866886452777778

00:37:14.910 --> 00:37:16.340 The person downloads and puts

NOTE Confidence: 0.866886452777778

00:37:16.340 --> 00:37:17.484 it on their phone.

NOTE Confidence: 0.866886452777778

00:37:17.490 --> 00:37:19.434 It collects data continuously.

NOTE Confidence: 0.866886452777778

00:37:19.434 --> 00:37:21.864 If the person wishes to,

NOTE Confidence: 0.866886452777778

00:37:21.870 --> 00:37:24.150 they can then share those data

NOTE Confidence: 0.866886452777778

00:37:24.150 --> 00:37:26.196 with a practitioner who has the

NOTE Confidence: 0.866886452777778

00:37:26.196 --> 00:37:28.449 complementary so well they only software.

NOTE Confidence: 0.866886452777778

00:37:28.450 --> 00:37:30.002 It's a web portal,

NOTE Confidence: 0.866886452777778

00:37:30.002 --> 00:37:33.230 so they need to log in and then the

NOTE Confidence: 0.866886452777778

00:37:33.230 --> 00:37:35.430 practitioner and what's happening is.

NOTE Confidence: 0.866886452777778

00:37:35.430 --> 00:37:38.006 What we're doing is we are collecting

NOTE Confidence: 0.866886452777778

00:37:38.006 --> 00:37:40.542 data on mood and behaviour across

NOTE Confidence: 0.866886452777778

00:37:40.542 --> 00:37:42.792 time within an individual and

NOTE Confidence: 0.866886452777778

00:37:42.792 --> 00:37:45.020 then we're building a model.

NOTE Confidence: 0.866886452777778

00:37:45.020 --> 00:37:47.546 A data model of each individual.

NOTE Confidence: 0.866886452777778

00:37:47.550 --> 00:37:49.545 And what are the particular

NOTE Confidence: 0.866886452777778

00:37:49.545 --> 00:37:51.141 behaviour patterns that support

NOTE Confidence: 0.866886452777778

00:37:51.141 --> 00:37:53.419 good mood and well-being for them?

NOTE Confidence: 0.866886452777778

00:37:53.420 --> 00:37:54.308 So this is simple.

NOTE Confidence: 0.866886452777778

00:37:54.308 --> 00:37:55.640 This is very simple stuff folks.

NOTE Confidence: 0.866886452777778

00:37:55.640 --> 00:37:58.016 This is called behavioral activation, right?

NOTE Confidence: 0.866886452777778

00:37:58.016 --> 00:38:01.790 It's an old technique, but one with a great.

NOTE Confidence: 0.866886452777778

00:38:01.790 --> 00:38:04.050 Pedigree in terms of effectiveness,

NOTE Confidence: 0.866886452777778

00:38:04.050 --> 00:38:07.290 but when I was a lad and we were learning,

NOTE Confidence: 0.866886452777778

00:38:07.290 --> 00:38:10.594 what would we do? We give people these.

NOTE Confidence: 0.866886452777778

00:38:10.600 --> 00:38:10.855 Matrix,

NOTE Confidence: 0.866886452777778

00:38:10.855 --> 00:38:11.365 matrix questionnaires.

NOTE Confidence: 0.866886452777778

00:38:11.365 --> 00:38:13.388 And they'd have to fill in what they

NOTE Confidence: 0.866886452777778

00:38:13.388 --> 00:38:14.932 did every hour and how they enjoyed it

NOTE Confidence: 0.866886452777778

00:38:14.932 --> 00:38:16.820 and whether it gave them a sense of mastery,

NOTE Confidence: 0.866886452777778

00:38:16.820 --> 00:38:18.516 as it was called then and so forth.

NOTE Confidence: 0.866886452777778

00:38:18.520 --> 00:38:21.292 And and and of course people didn't do it,

NOTE Confidence: 0.866886452777778

00:38:21.300 --> 00:38:21.686 you know,

NOTE Confidence: 0.866886452777778

00:38:21.686 --> 00:38:23.230 or they'd fill it in in the waiting

NOTE Confidence: 0.866886452777778

00:38:23.280 --> 00:38:24.694 room before they came to see you.

NOTE Confidence: 0.866886452777778

00:38:24.700 --> 00:38:25.812 All that kind of stuff, right?

NOTE Confidence: 0.866886452777778

00:38:25.812 --> 00:38:27.988 So this takes the effort out of it,

NOTE Confidence: 0.866886452777778

00:38:27.990 --> 00:38:30.240 because we're actually measuring behavior

NOTE Confidence: 0.866886452777778

00:38:30.240 --> 00:38:32.040 continuously and and objectively,

NOTE Confidence: 0.866886452777778

00:38:32.040 --> 00:38:33.750 and we're also correlating it

NOTE Confidence: 0.866886452777778

00:38:33.750 --> 00:38:34.776 with mood variability.

NOTE Confidence: 0.866886452777778

00:38:34.780 --> 00:38:36.400 And then for each interpersonal we

NOTE Confidence: 0.866886452777778

00:38:36.400 --> 00:38:38.802 are able to tell you which aspect of

NOTE Confidence: 0.866886452777778

00:38:38.802 --> 00:38:41.816 mood variability is most important.

NOTE Confidence: 0.866886452777778

00:38:41.816 --> 00:38:43.400 You. Then.

NOTE Confidence: 0.866886452777778

00:38:43.400 --> 00:38:45.857 That is fed back to the practitioner.

NOTE Confidence: 0.866886452777778

00:38:45.860 --> 00:38:47.645 The practitioner can look at

NOTE Confidence: 0.866886452777778

00:38:47.645 --> 00:38:48.359 those suggestions.

NOTE Confidence: 0.866886452777778

00:38:48.360 --> 00:38:50.650 She's not getting much sleep.

NOTE Confidence: 0.866886452777778

00:38:50.650 --> 00:38:51.571 Umm, you know,

NOTE Confidence: 0.866886452777778

00:38:51.571 --> 00:38:53.720 you can look at patterns like rigid

NOTE Confidence: 0.866886452777778

00:38:53.789 --> 00:38:56.190 thinking and the language and so forth.

NOTE Confidence: 0.866886452777778

00:38:56.190 --> 00:38:58.414 And it will also make some suggestions like,

NOTE Confidence: 0.866886452777778

00:38:58.420 --> 00:38:58.886 well, look,

NOTE Confidence: 0.866886452777778

00:38:58.886 --> 00:39:00.284 when this person gets more sleep,

NOTE Confidence: 0.866886452777778

00:39:00.290 --> 00:39:02.290 their mood is better or when they're more,

72

NOTE Confidence: 0.866886452777778

00:39:02.290 --> 00:39:04.642 when they have more social connection

NOTE Confidence: 0.866886452777778

00:39:04.642 --> 00:39:07.856 or if they are more positive in their

NOTE Confidence: 0.866886452777778

00:39:07.856 --> 00:39:10.585 thinking style or if they are more

NOTE Confidence: 0.866886452777778

00:39:10.585 --> 00:39:13.210 physically active or whatever it might be.

NOTE Confidence: 0.866886452777778

00:39:13.210 --> 00:39:14.786 And so that's fed back to the clinician.

NOTE Confidence: 0.866886452777778

00:39:14.790 --> 00:39:17.070 The clinician then build a,

NOTE Confidence: 0.866886452777778

00:39:17.070 --> 00:39:19.700 an intervention that is supported

NOTE Confidence: 0.866886452777778

00:39:19.700 --> 00:39:22.330 by just in time nudges.

NOTE Confidence: 0.866886452777778

00:39:22.330 --> 00:39:23.610 So they actually build out.

NOTE Confidence: 0.856503468823529

00:39:23.610 --> 00:39:24.735 They discussed this with the

NOTE Confidence: 0.856503468823529

00:39:24.735 --> 00:39:26.115 person and of course you know

NOTE Confidence: 0.856503468823529

00:39:26.115 --> 00:39:27.387 the idea of nudging this term.

NOTE Confidence: 0.856503468823529

00:39:27.390 --> 00:39:28.760 It comes from behavioral economics.

NOTE Confidence: 0.856503468823529

00:39:28.760 --> 00:39:30.085 The important thing about a

NOTE Confidence: 0.856503468823529

00:39:30.085 --> 00:39:31.689 nudge is that the person's got

NOTE Confidence: 0.856503468823529

00:39:31.689 --> 00:39:33.278 to match a goal the person holds.

NOTE Confidence: 0.856503468823529

00:39:33.280 --> 00:39:34.560 You can't manipulate people's

NOTE Confidence: 0.856503468823529

00:39:34.560 --> 00:39:35.840 behavior with a nudge,

NOTE Confidence: 0.856503468823529

00:39:35.840 --> 00:39:37.436 but if someone's trying to do something,

NOTE Confidence: 0.856503468823529

00:39:37.440 --> 00:39:39.618 then the nudge might connect their

NOTE Confidence: 0.856503468823529

00:39:39.620 --> 00:39:40.790 current self with their future

NOTE Confidence: 0.856503468823529

00:39:40.790 --> 00:39:42.600 self for one of a better term.

NOTE Confidence: 0.856503468823529

00:39:42.600 --> 00:39:43.920 You know, connections to that

NOTE Confidence: 0.856503468823529

00:39:43.920 --> 00:39:45.540 long term goal that they have.

NOTE Confidence: 0.856503468823529

00:39:45.540 --> 00:39:47.817 And so we know that nudging is not perfect,

NOTE Confidence: 0.856503468823529

00:39:47.820 --> 00:39:48.288 but it does.

NOTE Confidence: 0.856503468823529

00:39:48.288 --> 00:39:50.160 You know, the behavioral economics

NOTE Confidence: 0.856503468823529

00:39:50.160 --> 00:39:52.184 literature suggests that, you know,

NOTE Confidence: 0.856503468823529

00:39:52.184 --> 00:39:53.576 in all these different areas where

NOTE Confidence: 0.856503468823529

00:39:53.576 --> 00:39:55.150 they've looked at vaccines and, you know,

NOTE Confidence: 0.856503468823529

00:39:55.150 --> 00:39:56.010 various things, eating behavior,

NOTE Confidence: 0.856503468823529

00:39:56.010 --> 00:39:57.580 there's a lot of studies.

NOTE Confidence: 0.856503468823529

00:39:57.580 --> 00:40:00.478 Meta analysis tend to suggest it works.

NOTE Confidence: 0.856503468823529

00:40:00.480 --> 00:40:01.016 It's good.

NOTE Confidence: 0.856503468823529

00:40:01.016 --> 00:40:02.356 It helps people more often,

NOTE Confidence: 0.856503468823529

00:40:02.360 --> 00:40:04.352 more of the time follow through

NOTE Confidence: 0.856503468823529

00:40:04.352 --> 00:40:05.680 with their behavioural intentions.

NOTE Confidence: 0.856503468823529

00:40:05.680 --> 00:40:08.173 So you can build this in and this then

NOTE Confidence: 0.856503468823529

00:40:08.173 --> 00:40:10.102 arrives on the phone as a notification.

NOTE Confidence: 0.856503468823529

00:40:10.102 --> 00:40:13.474 Person can click through on that,

NOTE Confidence: 0.856503468823529

00:40:13.480 --> 00:40:16.570 they can let us know if they did it or not.

NOTE Confidence: 0.856503468823529

00:40:16.570 --> 00:40:21.350 And they can then and then we can learn.

NOTE Confidence: 0.856503468823529

00:40:21.350 --> 00:40:23.471 And the other thing that and the

NOTE Confidence: 0.856503468823529

00:40:23.471 --> 00:40:25.323 thing that actually gets me very

NOTE Confidence: 0.856503468823529

00:40:25.323 --> 00:40:27.367 excited about this is that what we're

NOTE Confidence: 0.856503468823529

00:40:27.427 --> 00:40:29.143 also doing is we are digitizing

NOTE Confidence: 0.856503468823529

00:40:29.143 --> 00:40:30.926 all this stuff in the workflow.

00:40:30.926 --> 00:40:31.244 Right.

00:40:31.244 --> 00:40:33.470 So this is so the clinician doesn't

00:40:33.534 --> 00:40:35.070 have to spend more time on.

00:40:35.070 --> 00:40:36.522 This is something I use when

00:40:36.522 --> 00:40:37.490 they're with the patient.

00:40:37.490 --> 00:40:39.930 And so suddenly we can then roll that up to

00:40:39.994 --> 00:40:42.727 the healthcare organization and they can

00:40:42.727 --> 00:40:46.190 see in real time are people getting better?

00:40:46.190 --> 00:40:48.110 What are my clinicians doing?

00:40:48.110 --> 00:40:49.560 Because at least in most

00:40:49.560 --> 00:40:50.430 evidence based therapies,

00:40:50.430 --> 00:40:52.270 some kind of homeworkers

00:40:52.270 --> 00:40:54.570 usually part of the deal.

00:40:54.570 --> 00:40:56.937 You see which kind of you can see what's

00:40:56.937 --> 00:40:58.324 working with our population here.

NOTE Confidence: 0.856503468823529

00:40:58.324 --> 00:41:00.743 Not some RCT across the other side of the

NOTE Confidence: 0.856503468823529

00:41:00.743 --> 00:41:02.680 country or the other side of the world,

NOTE Confidence: 0.856503468823529

00:41:02.680 --> 00:41:04.472 but with my population,

NOTE Confidence: 0.856503468823529

00:41:04.472 --> 00:41:06.264 with its particular characteristics,

NOTE Confidence: 0.856503468823529

00:41:06.270 --> 00:41:08.209 what is working and so that I

NOTE Confidence: 0.856503468823529

00:41:08.209 --> 00:41:10.170 can use that for supervision,

NOTE Confidence: 0.856503468823529

00:41:10.170 --> 00:41:12.130 for training, for service reform,

NOTE Confidence: 0.856503468823529

00:41:12.130 --> 00:41:13.880 all that kind of stuff.

NOTE Confidence: 0.856503468823529

00:41:13.880 --> 00:41:16.778 So suddenly we're creating a learning system,

NOTE Confidence: 0.856503468823529

00:41:16.780 --> 00:41:18.841 and one of the things that I think is

NOTE Confidence: 0.856503468823529

00:41:18.841 --> 00:41:20.590 exciting about this is the fact that

NOTE Confidence: 0.856503468823529

00:41:20.590 --> 00:41:22.319 we actually know more about traffic.

NOTE Confidence: 0.856503468823529

00:41:22.320 --> 00:41:25.098 Than we do about mental health.

NOTE Confidence: 0.856503468823529

00:41:25.100 --> 00:41:27.780 Because we get real time data and

NOTE Confidence: 0.856503468823529

00:41:27.780 --> 00:41:30.280 we adjust policy and interventions

NOTE Confidence: 0.856503468823529

00:41:30.280 --> 00:41:31.990 on the basis of it.

NOTE Confidence: 0.856503468823529

00:41:31.990 --> 00:41:34.206 And we don't get that in mental health.

NOTE Confidence: 0.856503468823529

00:41:34.210 --> 00:41:35.946 So that's that's so that's what we're

NOTE Confidence: 0.856503468823529

00:41:35.946 --> 00:41:37.490 working on and we're we're currently

NOTE Confidence: 0.856503468823529

00:41:37.490 --> 00:41:39.570 where we are with that is it's built,

NOTE Confidence: 0.856503468823529

00:41:39.570 --> 00:41:42.290 it's working and it's needs to work better,

NOTE Confidence: 0.856503468823529

00:41:42.290 --> 00:41:44.950 but it's but we're working on it.

NOTE Confidence: 0.856503468823529

00:41:44.950 --> 00:41:47.008 We've got a series of partnerships

NOTE Confidence: 0.856503468823529

00:41:47.010 --> 00:41:49.257 with different groups to test this out

NOTE Confidence: 0.856503468823529

00:41:49.257 --> 00:41:50.941 with different kinds of populations

NOTE Confidence: 0.856503468823529

00:41:50.941 --> 00:41:53.265 and and certainly if anyone here is

NOTE Confidence: 0.856503468823529

00:41:53.265 --> 00:41:54.848 interested in talking about this,

NOTE Confidence: 0.856503468823529

00:41:54.850 --> 00:41:57.706 I'd love love to chat to you.

NOTE Confidence: 0.856503468823529

00:41:57.710 --> 00:41:58.100 Umm.

NOTE Confidence: 0.8854836

00:42:00.340 --> 00:42:03.900 So. So what are the next steps?

NOTE Confidence: 0.8854836

00:42:03.900 --> 00:42:07.520 Well, the next steps are.

NOTE Confidence: 0.8854836

00:42:07.520 --> 00:42:09.792 At the moment we decided to start with

NOTE Confidence: 0.8854836

00:42:09.792 --> 00:42:12.370 a system where this kind of nudging

NOTE Confidence: 0.8854836

00:42:12.370 --> 00:42:14.310 procedure is controlled by clinician.

NOTE Confidence: 0.8854836

00:42:14.310 --> 00:42:15.606 But there are, and you know,

NOTE Confidence: 0.8854836

00:42:15.610 --> 00:42:16.708 there are various reasons for that.

NOTE Confidence: 0.8854836

00:42:16.710 --> 00:42:17.865 We want to learn more about it.

NOTE Confidence: 0.8854836

00:42:17.870 --> 00:42:18.650 We want to collect data.

NOTE Confidence: 0.8854836

00:42:18.650 --> 00:42:20.774 We want safety.

NOTE Confidence: 0.8854836

00:42:20.774 --> 00:42:22.530 Etcetera, but the.

NOTE Confidence: 0.8854836

00:42:22.530 --> 00:42:24.910 There's a lot of people talking about

NOTE Confidence: 0.8854836

00:42:24.910 --> 00:42:27.617 this concept of just in time adaptive

NOTE Confidence: 0.8854836

00:42:27.617 --> 00:42:30.145 interventions and so these are more

NOTE Confidence: 0.8854836

00:42:30.145 --> 00:42:32.680 automated things that are driven off.

NOTE Confidence: 0.8854836

00:42:32.680 --> 00:42:33.552 Machine learning,

NOTE Confidence: 0.8854836

00:42:33.552 --> 00:42:34.860 artificial intelligence, say.

NOTE Confidence: 0.8854836

00:42:34.860 --> 00:42:35.940 Just like that.

NOTE Confidence: 0.8854836

00:42:35.940 --> 00:42:37.380 But here's a definition,

NOTE Confidence: 0.8854836

00:42:37.380 --> 00:42:39.144 an intervention design that aims to provide

NOTE Confidence: 0.8854836

00:42:39.144 --> 00:42:41.360 just in time support by adapting to the

NOTE Confidence: 0.8854836

00:42:41.360 --> 00:42:42.775 dynamics that have been individuals,

NOTE Confidence: 0.8854836

00:42:42.780 --> 00:42:45.020 internal state, and context,

NOTE Confidence: 0.8854836

00:42:45.020 --> 00:42:47.260 which is measured continuously.

NOTE Confidence: 0.8854836

00:42:47.260 --> 00:42:50.628 Italics are mine. So.

NOTE Confidence: 0.8854836

00:42:50.630 --> 00:42:53.528 The point is that with mobile sensing.

NOTE Confidence: 0.8854836

00:42:53.530 --> 00:42:54.590 There's a lot of problems.

NOTE Confidence: 0.8854836

00:42:54.590 --> 00:42:56.082 Let me be clear.

NOTE Confidence: 0.8854836

00:42:56.082 --> 00:42:57.854 In case I'm sending to evangelical,

NOTE Confidence: 0.8854836

00:42:57.854 --> 00:42:59.134 I want to be clear.

NOTE Confidence: 0.8854836

00:42:59.140 --> 00:43:00.765 There's a lot of unresolved

NOTE Confidence: 0.8854836

00:43:00.765 --> 00:43:02.065 problems with mobile sensing.

NOTE Confidence: 0.8854836

00:43:02.070 --> 00:43:02.522 All right,

NOTE Confidence: 0.8854836

00:43:02.522 --> 00:43:04.579 we've got a lot of work to do to

NOTE Confidence: 0.8854836

00:43:04.579 --> 00:43:06.322 get better at it and to understand

NOTE Confidence: 0.8854836

00:43:06.322 --> 00:43:07.670 more what the data means.

NOTE Confidence: 0.8854836

00:43:07.670 --> 00:43:09.966 But it but it but at least it

NOTE Confidence: 0.8854836

00:43:09.966 --> 00:43:13.210 gives us line of sight on that.

NOTE Confidence: 0.8854836

00:43:13.210 --> 00:43:13.417 Problem.

NOTE Confidence: 0.8854836

00:43:13.417 --> 00:43:14.866 So let me give you a very,

NOTE Confidence: 0.8854836

00:43:14.870 --> 00:43:15.809 very simple example,

NOTE Confidence: 0.8854836

00:43:15.809 --> 00:43:17.687 one that I'm excited to be

NOTE Confidence: 0.8854836

00:43:17.687 --> 00:43:19.330 working with some colleagues on

NOTE Confidence: 0.8854836

00:43:19.330 --> 00:43:20.920 who are interested in people

NOTE Confidence: 0.8854836

00:43:20.920 --> 00:43:22.668 who are addicted to opiates.

NOTE Confidence: 0.8854836

00:43:22.670 --> 00:43:25.508 We're thinking about a procedure where.

NOTE Confidence: 0.8854836

00:43:25.510 --> 00:43:27.814 Participant could.

NOTE Confidence: 0.8854836

00:43:27.814 --> 00:43:30.118 Identify locations.

NOTE Confidence: 0.8854836

00:43:30.120 --> 00:43:32.504 Dropping a pin on a map that they

NOTE Confidence: 0.8854836

00:43:32.504 --> 00:43:35.209 are now a danger locations for them.

NOTE Confidence: 0.8854836

00:43:35.210 --> 00:43:36.827 So it could be the doctor where

NOTE Confidence: 0.8854836

00:43:36.827 --> 00:43:38.169 you get prescribed your opiates.

NOTE Confidence: 0.8854836

00:43:38.170 --> 00:43:39.094 It could be the,

NOTE Confidence: 0.8854836

00:43:39.094 --> 00:43:40.890 you know where you score your heroin.

NOTE Confidence: 0.8854836

00:43:40.890 --> 00:43:41.853 It could be, you know, like,

NOTE Confidence: 0.8854836

00:43:41.853 --> 00:43:42.768 so it could be wherever.

NOTE Confidence: 0.8854836

00:43:42.770 --> 00:43:44.050 It could be your friend who you go

NOTE Confidence: 0.8854836

00:43:44.050 --> 00:43:45.209 and visit and you used together,

NOTE Confidence: 0.8854836

00:43:45.210 --> 00:43:45.630 you know.

NOTE Confidence: 0.8854836

00:43:45.630 --> 00:43:46.890 So there's various things and you

NOTE Confidence: 0.8854836

00:43:46.890 --> 00:43:48.290 could drop those in if you wish to.

NOTE Confidence: 0.8854836

00:43:48.290 --> 00:43:49.500 This is all you know,

NOTE Confidence: 0.8854836

00:43:49.500 --> 00:43:52.425 totally only if the person wants to do it.

NOTE Confidence: 0.8854836

00:43:52.430 --> 00:43:54.726 And then it's not a hard technical

NOTE Confidence: 0.8854836

00:43:54.726 --> 00:43:57.020 problem to then geographically ring fence

NOTE Confidence: 0.8854836

00:43:57.020 --> 00:44:00.380 those locations and give the person a nudge.

NOTE Confidence: 0.8854836

00:44:00.380 --> 00:44:02.708 Whenever they're nearby.

NOTE Confidence: 0.8854836

00:44:02.710 --> 00:44:03.595 They're still free to do

NOTE Confidence: 0.8854836

00:44:03.595 --> 00:44:04.480 whatever they want to do.

NOTE Confidence: 0.8854836

00:44:04.480 --> 00:44:05.840 We're not controlling their behaviour,

NOTE Confidence: 0.8854836

00:44:05.840 --> 00:44:07.730 but we're just reminding them that if

NOTE Confidence: 0.8854836

00:44:07.730 --> 00:44:09.950 they do have a commitment to sobriety.

NOTE Confidence: 0.8854836

00:44:09.950 --> 00:44:12.566 That this is a decision point for them.

NOTE Confidence: 0.8854836

00:44:12.570 --> 00:44:14.208 And that we're raising that awareness,

NOTE Confidence: 0.8854836

00:44:14.210 --> 00:44:15.368 like I say,

NOTE Confidence: 0.8854836

00:44:15.368 --> 00:44:16.912 connecting your future self

NOTE Confidence: 0.8854836

00:44:16.912 --> 00:44:18.480 with your current self.

NOTE Confidence: 0.8854836

00:44:18.480 --> 00:44:20.922 So that's the kind of thing

NOTE Confidence: 0.8854836

00:44:20.922 --> 00:44:22.550 that's actually very tractable.

NOTE Confidence: 0.8854836

00:44:22.550 --> 00:44:23.600 The other one that I haven't

NOTE Confidence: 0.8854836

00:44:23.600 --> 00:44:24.570 talked about a lot today,

NOTE Confidence: 0.8854836

00:44:24.570 --> 00:44:26.075 but is that is really this was

NOTE Confidence: 0.8854836

00:44:26.075 --> 00:44:27.695 the use case that got me excited

NOTE Confidence: 0.8854836

00:44:27.695 --> 00:44:29.075 in the 1st place about it,

NOTE Confidence: 0.8854836

00:44:29.080 --> 00:44:32.140 which was suicide prevention.

NOTE Confidence: 0.8854836

00:44:32.140 --> 00:44:34.400 This is a harder problem.

NOTE Confidence: 0.8854836

00:44:34.400 --> 00:44:36.521 But we know that all the interventions

NOTE Confidence: 0.8854836

00:44:36.521 --> 00:44:39.021 that we have that are effective for

NOTE Confidence: 0.8854836

00:44:39.021 --> 00:44:40.545 suicide prevention work because

NOTE Confidence: 0.8854836

00:44:40.545 --> 00:44:42.868 they have an impact at the time of

NOTE Confidence: 0.8854836

00:44:42.868 --> 00:44:44.890 high risk and the time of high risk

NOTE Confidence: 0.8854836

00:44:44.890 --> 00:44:46.420 where there's an intention to act,

NOTE Confidence: 0.892280201666667

00:44:46.420 --> 00:44:48.289 and the time of high risk for

NOTE Confidence: 0.892280201666667

00:44:48.289 --> 00:44:50.190 most people is relatively short.

NOTE Confidence: 0.892280201666667

00:44:50.190 --> 00:44:52.404 Might even be only 10 or 15 minutes long,

84

NOTE Confidence: 0.892280201666667

00:44:52.410 --> 00:44:54.335 but the things that work are things

NOTE Confidence: 0.892280201666667

00:44:54.335 --> 00:44:56.686 that put some friction in at that point.

NOTE Confidence: 0.892280201666667

00:44:56.690 --> 00:44:58.727 Don't have a gun in the house?

NOTE Confidence: 0.892280201666667

00:44:58.730 --> 00:45:01.600 Keep your ammunition away from the gun.

NOTE Confidence: 0.892280201666667

00:45:01.600 --> 00:45:03.488 Put pills into blister

NOTE Confidence: 0.892280201666667

00:45:03.488 --> 00:45:05.376 packs instead of bottles.

NOTE Confidence: 0.892280201666667

00:45:05.380 --> 00:45:07.760 Put bridge, barriers up, etcetera.

NOTE Confidence: 0.892280201666667

00:45:07.760 --> 00:45:09.908 Don't, don't give people access to

NOTE Confidence: 0.892280201666667

00:45:09.908 --> 00:45:11.340 agricultural chemicals that have,

NOTE Confidence: 0.892280201666667

00:45:11.340 --> 00:45:12.480 you know, they're highly toxic.

NOTE Confidence: 0.892280201666667

00:45:12.480 --> 00:45:13.950 There's a whole range range of

NOTE Confidence: 0.892280201666667

00:45:13.950 --> 00:45:15.401 these things that have all been

NOTE Confidence: 0.892280201666667

00:45:15.401 --> 00:45:16.885 shown to be effective at the point

NOTE Confidence: 0.892280201666667

00:45:16.885 --> 00:45:18.445 is they all have an impact on at

NOTE Confidence: 0.892280201666667

00:45:18.445 --> 00:45:20.028 the at the moment of high risk.

NOTE Confidence: 0.892280201666667

00:45:20.028 --> 00:45:21.570 So it's a harder problem than

NOTE Confidence: 0.892280201666667

00:45:21.621 --> 00:45:23.343 the one I just described for

NOTE Confidence: 0.892280201666667

00:45:23.343 --> 00:45:24.491 the substance use scenario.

NOTE Confidence: 0.892280201666667

00:45:24.500 --> 00:45:27.097 But if we could get even some

NOTE Confidence: 0.892280201666667

00:45:27.097 --> 00:45:28.642 probabilistic estimate of when

NOTE Confidence: 0.892280201666667

00:45:28.642 --> 00:45:31.048 people's mood if someone's at risk.

NOTE Confidence: 0.892280201666667

00:45:31.050 --> 00:45:32.778 And then their mood is shifting

NOTE Confidence: 0.892280201666667

00:45:32.778 --> 00:45:33.930 in the particular direction,

NOTE Confidence: 0.892280201666667

00:45:33.930 --> 00:45:35.596 then the capacity to reach out at

NOTE Confidence: 0.892280201666667

00:45:35.596 --> 00:45:37.151 that time might be something that

NOTE Confidence: 0.892280201666667

00:45:37.151 --> 00:45:38.735 could really be a game changer.

NOTE Confidence: 0.892280201666667

00:45:38.740 --> 00:45:42.710 So that's pretty exciting. The.

NOTE Confidence: 0.892280201666667

00:45:42.710 --> 00:45:44.048 So the ultimate vision for this,

NOTE Confidence: 0.892280201666667

00:45:44.050 --> 00:45:45.650 also in terms of access,

NOTE Confidence: 0.892280201666667

00:45:45.650 --> 00:45:51.378 is to actually build a system that provides.

NOTE Confidence: 0.892280201666667

00:45:51.380 --> 00:45:53.795 Access to what people call stratified care,

NOTE Confidence: 0.892280201666667

00:45:53.800 --> 00:45:54.037 right.

NOTE Confidence: 0.892280201666667

00:45:54.037 --> 00:45:55.933 So one of the problems we have with

NOTE Confidence: 0.892280201666667

00:45:55.933 --> 00:45:57.568 our current mental health system is

NOTE Confidence: 0.892280201666667

00:45:57.568 --> 00:45:59.550 that we use the same solution for

NOTE Confidence: 0.892280201666667

00:45:59.550 --> 00:46:01.594 almost every problem most of the time.

NOTE Confidence: 0.892280201666667

00:46:01.600 --> 00:46:02.668 So it's expensive.

NOTE Confidence: 0.892280201666667

00:46:02.668 --> 00:46:04.406 People like me, you know,

NOTE Confidence: 0.892280201666667

00:46:04.406 --> 00:46:05.738 and and you know,

NOTE Confidence: 0.892280201666667

00:46:05.740 --> 00:46:07.308 it's the 50 minute hour and you know,

NOTE Confidence: 0.892280201666667

00:46:07.310 --> 00:46:08.200 we have that kind of,

NOTE Confidence: 0.892280201666667

00:46:08.200 --> 00:46:09.452 it's not always true,

NOTE Confidence: 0.892280201666667

00:46:09.452 --> 00:46:11.330 but but there's a tendency to

NOTE Confidence: 0.892280201666667

00:46:11.400 --> 00:46:13.020 use that one solution and what

NOTE Confidence: 0.892280201666667

00:46:13.020 --> 00:46:15.029 we want to be able to do is.

NOTE Confidence: 0.87847537

00:46:20.220 --> 00:46:23.164 Give people, through a digital tool, access

NOTE Confidence: 0.87847537

00:46:23.164 --> 00:46:26.956 to a range of different levels of care.

NOTE Confidence: 0.87847537

00:46:26.960 --> 00:46:31.610 That they can access. Without friction.

NOTE Confidence: 0.87847537

00:46:31.610 --> 00:46:34.310 Mental healthcare systems full of friction.

NOTE Confidence: 0.87847537

00:46:34.310 --> 00:46:35.250 It's hard to get in,

NOTE Confidence: 0.87847537

00:46:35.250 --> 00:46:36.390 hard to know where to go,

NOTE Confidence: 0.87847537

00:46:36.390 --> 00:46:38.090 hard to get an appointment,

NOTE Confidence: 0.87847537

00:46:38.090 --> 00:46:39.698 hard to know if you're not doing well

NOTE Confidence: 0.87847537

00:46:39.698 --> 00:46:41.268 because it's your fault or the therapist.

NOTE Confidence: 0.87847537

00:46:41.270 --> 00:46:43.190 You know? There's just like

NOTE Confidence: 0.87847537

00:46:43.190 --> 00:46:44.726 fiction everywhere and so.

NOTE Confidence: 0.87847537

00:46:44.730 --> 00:46:45.654 Once you're in,

NOTE Confidence: 0.87847537

00:46:45.654 --> 00:46:47.810 you can use the app for self-care.

NOTE Confidence: 0.87847537

00:46:47.810 --> 00:46:50.090 You can interact with automated nudges.

NOTE Confidence: 0.87847537

00:46:50.090 --> 00:46:52.874 You can get a text based coaching model,

NOTE Confidence: 0.87847537

00:46:52.880 --> 00:46:53.792 health coaching model,

NOTE Confidence: 0.87847537

00:46:53.792 --> 00:46:55.616 which is more scalable than a

00:46:55.616 --> 00:46:57.248 traditional face to face therapy model.

00:46:57.250 --> 00:46:59.670 You can also access telehealth.

00:46:59.670 --> 00:47:01.154 Consultations and face to

00:47:01.154 --> 00:47:03.009 face therapy and if necessary,

00:47:03.010 --> 00:47:06.510 hospitalization and inpatient care.

00:47:06.510 --> 00:47:09.978 A daycare, sorry.

00:47:09.980 --> 00:47:10.816 But the idea is,

00:47:10.816 --> 00:47:12.070 wouldn't it be cool if someone

00:47:12.123 --> 00:47:13.569 who had a mental health challenge

00:47:13.569 --> 00:47:15.005 could plug into this system at

00:47:15.005 --> 00:47:16.503 the right level for them and then

00:47:16.503 --> 00:47:18.304 move up and down according to what

00:47:18.304 --> 00:47:20.339 they needed at a particular time,

00:47:20.340 --> 00:47:22.839 knowing that they can still move back

00:47:22.839 --> 00:47:26.077 up or move back down relatively easily?

00:47:26.080 --> 00:47:27.760 So that's that's the kind of the goal.

NOTE Confidence: 0.87847537

00:47:27.760 --> 00:47:30.092 So we're starting on.

NOTE Confidence: 0.87847537

00:47:30.092 --> 00:47:33.540 This part and this part and this part,

NOTE Confidence: 0.87847537

00:47:33.540 --> 00:47:37.290 but we want to kind of build it out overtime.

NOTE Confidence: 0.87847537

00:47:37.290 --> 00:47:38.336 All right.

NOTE Confidence: 0.87847537

00:47:38.336 --> 00:47:40.428 Thank you for listening.

NOTE Confidence: 0.914395554

00:47:53.740 --> 00:47:54.880 Thank you very much, Nick.

NOTE Confidence: 0.914395554

00:47:54.880 --> 00:47:57.670 And questions for Doctor Allen.

NOTE Confidence: 0.67734677

00:48:02.410 --> 00:48:02.820 Carla.

NOTE Confidence: 0.92817665

00:48:07.160 --> 00:48:09.118 So I'm very interested in this.

NOTE Confidence: 0.92817665

00:48:09.120 --> 00:48:11.080 I do a lot of work with people

NOTE Confidence: 0.92817665

00:48:11.080 --> 00:48:12.091 with significant trauma

NOTE Confidence: 0.92817665

00:48:12.091 --> 00:48:13.300 backgrounds and a lot of emotion.

NOTE Confidence: 0.92817665

00:48:13.300 --> 00:48:14.770 Emotion dysregulation,

NOTE Confidence: 0.92817665

00:48:14.770 --> 00:48:16.240 difficulties, irritable,

NOTE Confidence: 0.92817665

00:48:16.240 --> 00:48:17.828 angry, outbursts, violence.

NOTE Confidence: 0.92817665

00:48:17.828 --> 00:48:20.168 And I'm thinking about this

NOTE Confidence: 0.92817665

00:48:20.168 --> 00:48:22.290 in terms of applications to

NOTE Confidence: 0.92817665

00:48:22.290 --> 00:48:23.948 someone being able to monitor

NOTE Confidence: 0.870054546875

00:48:24.140 --> 00:48:25.580 who isn't very well in touch

NOTE Confidence: 0.870054546875

00:48:25.580 --> 00:48:26.806 with their internal States and

NOTE Confidence: 0.870054546875

00:48:26.806 --> 00:48:27.896 being able to monitor them

NOTE Confidence: 0.857723202

00:48:27.910 --> 00:48:30.430 and get pings that they need to use

NOTE Confidence: 0.857723202

00:48:30.430 --> 00:48:31.948 coping strategies. Does that seem

NOTE Confidence: 0.91446806

00:48:31.960 --> 00:48:33.060 like something that is?

NOTE Confidence: 0.724079775

00:48:34.740 --> 00:48:37.244 A million years away,

NOTE Confidence: 0.724079775

00:48:37.244 --> 00:48:40.075 or potentially feasible sooner? So.

NOTE Confidence: 0.724079775

00:48:40.075 --> 00:48:42.675 Well, let me go back to the microphone.

NOTE Confidence: 0.87631881

00:48:47.380 --> 00:48:49.319 So when I did my PhD research,

NOTE Confidence: 0.87631881

00:48:49.320 --> 00:48:52.090 I did it in psychophysiology and

NOTE Confidence: 0.87631881

00:48:52.090 --> 00:48:53.560 so this is not a new problem,

NOTE Confidence: 0.87631881

00:48:53.560 --> 00:48:55.711 this is an old problem and I was particularly

NOTE Confidence: 0.87631881

00:48:55.711 --> 00:48:57.600 in the psychophysiology of emotion.

NOTE Confidence: 0.87631881

00:48:57.600 --> 00:48:59.859 And so one of the problems we know that

NOTE Confidence: 0.87631881

00:48:59.859 --> 00:49:01.719 we've got with the psychophysiology

NOTE Confidence: 0.87631881

00:49:01.719 --> 00:49:03.263 or behavioural signatures of

NOTE Confidence: 0.87631881

00:49:03.263 --> 00:49:05.184 emotion is that there's, it's a,

NOTE Confidence: 0.87631881

00:49:05.184 --> 00:49:07.100 it's a kind of a many to one problem.

NOTE Confidence: 0.87631881

00:49:07.100 --> 00:49:08.704 There's lots of different.

NOTE Confidence: 0.87631881

00:49:08.704 --> 00:49:10.709 Signatures that can occur that

NOTE Confidence: 0.87631881

00:49:10.709 --> 00:49:13.395 can be associated with emotional

NOTE Confidence: 0.87631881

00:49:13.395 --> 00:49:15.057 experience across individuals.

NOTE Confidence: 0.87631881

00:49:15.060 --> 00:49:17.244 So one person might show high autonomic

NOTE Confidence: 0.87631881

00:49:17.244 --> 00:49:19.139 arousal and another person might not,

NOTE Confidence: 0.87631881

00:49:19.140 --> 00:49:20.245 and another person might express

NOTE Confidence: 0.87631881

00:49:20.245 --> 00:49:21.472 it in language, you know,

NOTE Confidence: 0.87631881

00:49:21.472 --> 00:49:22.877 so there's lots of so.

00:49:22.880 --> 00:49:24.581 So I want to say that as a background

00:49:24.581 --> 00:49:26.203 that that there's a lot of people

00:49:26.203 --> 00:49:27.758 in this digital health area and you,

00:49:27.760 --> 00:49:29.848 if you read the digital tech press and

00:49:29.848 --> 00:49:31.976 the saving some of the mainstream press,

00:49:31.980 --> 00:49:34.180 you'll see these things occasionally.

00:49:34.180 --> 00:49:35.824 Does your smartphone know when you're

00:49:35.824 --> 00:49:37.078 depressed, you know, or something like that?

00:49:37.080 --> 00:49:39.372 And it's always simple.

00:49:39.372 --> 00:49:40.518 Have simplified.

00:49:40.520 --> 00:49:44.230 Because of this many to one problem

00:49:44.230 --> 00:49:46.270 this multifinality issue but.

00:49:46.270 --> 00:49:47.233 There is a,

00:49:47.233 --> 00:49:48.838 I think a tractable version,

00:49:48.840 --> 00:49:51.010 which is that the system has to

00:49:51.010 --> 00:49:52.894 learn about the individual right.

NOTE Confidence: 0.87631881

00:49:52.894 --> 00:49:54.686 It has to learn at the individual level.

NOTE Confidence: 0.87631881

00:49:54.690 --> 00:49:56.088 And I think that's more tractable.

NOTE Confidence: 0.87631881

00:49:56.090 --> 00:49:58.046 If you could actually track someone

NOTE Confidence: 0.87631881

00:49:58.046 --> 00:49:59.752 across time and understand their

NOTE Confidence: 0.87631881

00:49:59.752 --> 00:50:01.462 mood variability and then look

NOTE Confidence: 0.87631881

00:50:01.462 --> 00:50:03.205 at the particular signatures that

NOTE Confidence: 0.87631881

00:50:03.205 --> 00:50:04.469 are associated with them,

NOTE Confidence: 0.87631881

00:50:04.470 --> 00:50:06.633 that's what we do as clinicians, right?

NOTE Confidence: 0.87631881

00:50:06.633 --> 00:50:09.034 We try to learn what for each

NOTE Confidence: 0.87631881

00:50:09.034 --> 00:50:10.076 individual intervention, you know,

NOTE Confidence: 0.87631881

00:50:10.076 --> 00:50:11.144 if they're working with the clinician,

NOTE Confidence: 0.87631881

00:50:11.150 --> 00:50:12.852 trying to identify what are their signals,

NOTE Confidence: 0.87631881

00:50:12.852 --> 00:50:14.748 then you could input it into

NOTE Confidence: 0.87631881

00:50:14.748 --> 00:50:15.910 the device exactly.

NOTE Confidence: 0.87631881

00:50:15.910 --> 00:50:16.984 So for example.

NOTE Confidence: 0.87631881

00:50:16.984 --> 00:50:18.620 You know, there's lots of examples.

NOTE Confidence: 0.87631881

00:50:18.620 --> 00:50:19.770 The one that you mentioned,

NOTE Confidence: 0.87631881

00:50:19.770 --> 00:50:22.155 another classic is someone who

NOTE Confidence: 0.87631881

00:50:22.155 --> 00:50:23.586 experiences bipolar disorder.

NOTE Confidence: 0.87631881

00:50:23.590 --> 00:50:24.352 And you know,

NOTE Confidence: 0.87631881

00:50:24.352 --> 00:50:25.622 when you work psycho therapeutically

NOTE Confidence: 0.87631881

00:50:25.622 --> 00:50:27.068 with someone with bipolar disorder,

NOTE Confidence: 0.87631881

00:50:27.070 --> 00:50:28.510 one of the main things you do is

NOTE Confidence: 0.87631881

00:50:28.510 --> 00:50:30.066 try to help them to learn early,

NOTE Confidence: 0.87631881

00:50:30.070 --> 00:50:32.926 particularly in the manic phase to pick up.

NOTE Confidence: 0.87631881

00:50:32.930 --> 00:50:34.193 That's something shifting,

NOTE Confidence: 0.87631881

00:50:34.193 --> 00:50:37.530 which they often don't notice until too late.

NOTE Confidence: 0.87631881

00:50:37.530 --> 00:50:38.738 But over repeated episodes

NOTE Confidence: 0.87631881

00:50:38.738 --> 00:50:40.248 they can start to learn.

NOTE Confidence: 0.87631881

00:50:40.250 --> 00:50:42.282 And so if you could have something like

NOTE Confidence: 0.87631881

00:50:42.282 --> 00:50:44.187 that that is monitored and fed back,

NOTE Confidence: 0.87631881

00:50:44.190 --> 00:50:45.522 then that's very empowering

NOTE Confidence: 0.87631881

00:50:45.522 --> 00:50:47.187 to the individual and I.

NOTE Confidence: 0.87631881

00:50:47.190 --> 00:50:49.678 And I just, I'll dwell on that point,

NOTE Confidence: 0.87631881

00:50:49.680 --> 00:50:50.588 empowering for a moment.

NOTE Confidence: 0.87631881

00:50:50.588 --> 00:50:51.950 Because one of the things I

NOTE Confidence: 0.87631881

00:50:51.997 --> 00:50:53.437 suspect some of you are thinking,

NOTE Confidence: 0.87631881

00:50:53.440 --> 00:50:55.258 if not all of you is.

NOTE Confidence: 0.87631881

00:50:55.260 --> 00:50:56.208 It's a common reaction.

NOTE Confidence: 0.87631881

00:50:56.208 --> 00:50:58.300 I get people go, this is a little creepy,

NOTE Confidence: 0.87631881

00:50:58.300 --> 00:51:00.256 nick, this is a little creepy.

NOTE Confidence: 0.87631881

00:51:00.260 --> 00:51:00.770 You know,

NOTE Confidence: 0.87631881

00:51:00.770 --> 00:51:02.555 you're tracking people and things like that.

NOTE Confidence: 0.87631881

00:51:02.560 --> 00:51:04.716 And I think there's a couple of,

NOTE Confidence: 0.87631881

00:51:04.720 --> 00:51:07.022 there's good reasons for that, but

NOTE Confidence: 0.87631881

00:51:07.022 --> 00:51:10.398 I think one thing that's important is that.

NOTE Confidence: 0.87631881

00:51:10.400 --> 00:51:12.899 Data is power.

NOTE Confidence: 0.87631881

00:51:12.900 --> 00:51:14.312 And the question is,

NOTE Confidence: 0.87631881

00:51:14.312 --> 00:51:15.724 who is it empowering?

NOTE Confidence: 0.87631881

00:51:15.730 --> 00:51:16.065 Now,

NOTE Confidence: 0.87631881

00:51:16.065 --> 00:51:17.740 our most common experience with

NOTE Confidence: 0.87631881

00:51:17.740 --> 00:51:20.039 digital data at the moment is that.

NOTE Confidence: 0.87631881

00:51:20.040 --> 00:51:23.250 It empowers large tech companies who

NOTE Confidence: 0.87631881

00:51:23.250 --> 00:51:26.609 use it to manipulate what we buy.

NOTE Confidence: 0.89589230875

00:51:26.610 --> 00:51:28.570 But there is actually a use of data,

NOTE Confidence: 0.89589230875

00:51:28.570 --> 00:51:30.845 I believe, that is empowering to the

NOTE Confidence: 0.89589230875

00:51:30.845 --> 00:51:32.789 individual if you set it upright.

NOTE Confidence: 0.89589230875

00:51:32.790 --> 00:51:34.491 And this is the kind of use

NOTE Confidence: 0.89589230875

00:51:34.491 --> 00:51:35.590 case you're talking about.

NOTE Confidence: 0.89589230875

00:51:35.590 --> 00:51:38.644 Like, it's empowering to me to understand.

NOTE Confidence: 0.89589230875

00:51:38.644 --> 00:51:41.493 My patterns of behaviour and how they

NOTE Confidence: 0.89589230875

00:51:41.493 --> 00:51:44.595 are going to affect my long-term health.

NOTE Confidence: 0.89589230875

00:51:44.600 --> 00:51:46.511 It's empowering to me to be able

NOTE Confidence: 0.89589230875

00:51:46.511 --> 00:51:48.208 to share those data with someone

NOTE Confidence: 0.89589230875

00:51:48.208 --> 00:51:49.834 I want to share it with,

NOTE Confidence: 0.89589230875

00:51:49.840 --> 00:51:51.900 as well as take the data back when I don't

NOTE Confidence: 0.89589230875

00:51:51.954 --> 00:51:53.792 want them to have it anymore, right?

NOTE Confidence: 0.89589230875

00:51:53.792 --> 00:51:55.440 Which our system does.

NOTE Confidence: 0.89589230875

00:51:55.440 --> 00:51:57.768 So I do think.

NOTE Confidence: 0.89589230875

00:51:57.768 --> 00:52:00.078 Yes, it's potentially creepy and you've gotta

NOTE Confidence: 0.89589230875

00:52:00.078 --> 00:52:02.322 and you know you've gotta manage it, right?

NOTE Confidence: 0.89589230875

00:52:02.322 --> 00:52:04.770 But I think if you if we ignore it,

NOTE Confidence: 0.89589230875

00:52:04.770 --> 00:52:06.726 then we're missing out on an

NOTE Confidence: 0.89589230875

00:52:06.726 --> 00:52:08.567 opportunity to empower people with

NOTE Confidence: 0.89589230875

00:52:08.567 --> 00:52:10.459 greater knowledge and self-awareness.

NOTE Confidence: 0.89589230875

00:52:10.460 --> 00:52:10.970 Yeah.

NOTE Confidence: 0.44819418

00:52:14.670 --> 00:52:15.260 Susie?

NOTE Confidence: 0.882857515714286

00:52:21.020 --> 00:52:22.476 Thank you so much for this presentation.

NOTE Confidence: 0.882857515714286

00:52:22.480 --> 00:52:23.736 I have multiple questions,

NOTE Confidence: 0.882857515714286

00:52:23.736 --> 00:52:26.850 but I'm going to go with one and that is

NOTE Confidence: 0.882857515714286

00:52:26.850 --> 00:52:29.172 I'm given the deluge of funding that is

NOTE Confidence: 0.882857515714286

00:52:29.172 --> 00:52:31.078 coming out of the federal government,

NOTE Confidence: 0.882857515714286

00:52:31.080 --> 00:52:33.468 whether the bipartisan infrastructure

NOTE Confidence: 0.882857515714286

00:52:33.468 --> 00:52:36.704 law or the safety bill,

NOTE Confidence: 0.882857515714286

00:52:36.704 --> 00:52:41.036 there's huge resources for digital work.

NOTE Confidence: 0.882857515714286

00:52:41.040 --> 00:52:43.770 The question is whether you are interfacing

NOTE Confidence: 0.882857515714286

00:52:43.770 --> 00:52:46.418 with policy to show this additional,

NOTE Confidence: 0.882857515714286

00:52:46.420 --> 00:52:47.764 this additional value,

NOTE Confidence: 0.882857515714286

00:52:47.764 --> 00:52:49.108 this hugely important.

NOTE Confidence: 0.882857515714286

00:52:49.110 --> 00:52:51.000 Value that is offered through this.

NOTE Confidence: 0.882857515714286

00:52:51.000 --> 00:52:53.475 And so are you doing it or are you

NOTE Confidence: 0.882857515714286

00:52:53.475 --> 00:52:55.337 interested in playing a policy role?

NOTE Confidence: 0.882857515714286

00:52:55.340 --> 00:52:57.560 So when you say you,

NOTE Confidence: 0.882857515714286

00:52:57.560 --> 00:52:58.796 you mean me as an individual,

NOTE Confidence: 0.882857515714286

00:52:58.800 --> 00:53:00.618 I mean you as an individual,

NOTE Confidence: 0.882857515714286

00:53:00.620 --> 00:53:02.660 University of Oregon, your private company.

NOTE Confidence: 0.882857515714286

00:53:02.660 --> 00:53:03.596 The time is now,

NOTE Confidence: 0.882857515714286

00:53:03.596 --> 00:53:05.302 the money's out and and and I

NOTE Confidence: 0.882857515714286

00:53:05.302 --> 00:53:07.222 think that there would be a lot of

NOTE Confidence: 0.882857515714286

00:53:07.222 --> 00:53:09.197 interest in what you're doing because

NOTE Confidence: 0.882857515714286

00:53:09.197 --> 00:53:10.877 you're showing an additional value

NOTE Confidence: 0.882857515714286

00:53:10.880 --> 00:53:13.350 to bridging that digital divide.

NOTE Confidence: 0.882857515714286

00:53:13.350 --> 00:53:15.625 So the quick answer to that is.

NOTE Confidence: 0.882857515714286

00:53:15.630 --> 00:53:16.494 I'm trying,

NOTE Confidence: 0.882857515714286

00:53:16.494 --> 00:53:19.086 but it's not something I'm necessarily

NOTE Confidence: 0.882857515714286

00:53:19.086 --> 00:53:20.988 well trained in or good at.

NOTE Confidence: 0.882857515714286

00:53:20.990 --> 00:53:22.199 So, for example,

NOTE Confidence: 0.882857515714286

00:53:22.199 --> 00:53:25.020 I mentioned briefly this report that we

00:53:25.094 --> 00:53:27.778 did for the world Innovation Health Forum.

00:53:27.778 --> 00:53:30.116 I've just finished working on a white

00:53:30.116 --> 00:53:32.235 paper with the National Scientific

00:53:32.235 --> 00:53:34.385 Council on the developing adolescent,

00:53:34.390 --> 00:53:37.012 which is a a group I'm involved in

00:53:37.012 --> 00:53:38.818 which is trying to influence policy.

00:53:41.100 --> 00:53:42.540 I'm trying to think of some other examples.

00:53:42.540 --> 00:53:44.248 You know I've been to meetings with

00:53:44.248 --> 00:53:45.999 UNICEF and the World Economic Foundation

00:53:45.999 --> 00:53:48.253 and other sort of policy related things.

00:53:48.260 --> 00:53:51.924 So trying, but I will say I'm a

00:53:51.924 --> 00:53:53.432 clinical psychologist, you know,

00:53:53.432 --> 00:53:55.208 I like seeing patients and collecting

00:53:55.208 --> 00:53:57.444 data and building software now, but I,

00:53:57.444 --> 00:53:59.140 you know, it's it's an interesting skill set.

00:53:59.140 --> 00:54:00.552 I don't know that I'm, I'm,

NOTE Confidence: 0.863718375

00:54:00.552 --> 00:54:03.864 I need people to help me.

NOTE Confidence: 0.863718375

00:54:03.870 --> 00:54:04.878 In the water, yeah.

NOTE Confidence: 0.863718375

00:54:04.878 --> 00:54:06.753 So now if you start swimming, yeah.

NOTE Confidence: 0.863718375

00:54:06.753 --> 00:54:09.294 No, but I think you're absolutely right.

NOTE Confidence: 0.863718375

00:54:09.300 --> 00:54:10.638 And of course, as you know,

NOTE Confidence: 0.863718375

00:54:10.640 --> 00:54:13.196 whenever there is an A deluge,

NOTE Confidence: 0.863718375

00:54:13.200 --> 00:54:14.400 as you describe it,

NOTE Confidence: 0.863718375

00:54:14.400 --> 00:54:15.836 of government funding, there's always,

NOTE Confidence: 0.863718375

00:54:15.836 --> 00:54:17.980 even when you like the topic they're funding,

NOTE Confidence: 0.863718375

00:54:17.980 --> 00:54:20.380 there's always that feeling like.

NOTE Confidence: 0.863718375

00:54:20.380 --> 00:54:22.333 How much of it is going to get wasted?

NOTE Confidence: 0.863718375

00:54:22.340 --> 00:54:24.840 And we know it's some,

NOTE Confidence: 0.863718375

00:54:24.840 --> 00:54:25.980 but how can we minimize the

NOTE Confidence: 0.863718375

00:54:25.980 --> 00:54:27.199 amount that's going to get wasted?

NOTE Confidence: 0.863718375

00:54:27.200 --> 00:54:28.004 And there's, of course,

NOTE Confidence: 0.863718375

00:54:28.004 --> 00:54:28.808 the moment the government,

NOTE Confidence: 0.863718375

00:54:28.810 --> 00:54:30.100 there's a bucket of money

NOTE Confidence: 0.863718375

00:54:30.100 --> 00:54:30.874 from the government,

NOTE Confidence: 0.863718375

00:54:30.880 --> 00:54:32.357 all sorts of hucksters and so forth

NOTE Confidence: 0.863718375

00:54:32.357 --> 00:54:34.236 will be running at it along with the

NOTE Confidence: 0.863718375

00:54:34.236 --> 00:54:35.436 people who've actually got solutions.

NOTE Confidence: 0.863718375

00:54:35.440 --> 00:54:39.892 So I think partly the digital area has

NOTE Confidence: 0.863718375

00:54:39.892 --> 00:54:42.780 been very fatty and and influenced by that.

NOTE Confidence: 0.863718375

00:54:42.780 --> 00:54:44.724 I think the good news is that what I'm

NOTE Confidence: 0.863718375

00:54:44.724 --> 00:54:46.771 seeing even in the business part of it

NOTE Confidence: 0.863718375

00:54:46.771 --> 00:54:48.598 and Inventure venture funding and so forth,

NOTE Confidence: 0.863718375

00:54:48.600 --> 00:54:49.328 there's a,

NOTE Confidence: 0.863718375

00:54:49.328 --> 00:54:50.420 there's a maturing.

NOTE Confidence: 0.863718375

00:54:50.420 --> 00:54:52.556 Where people are starting to ask

NOTE Confidence: 0.863718375

00:54:52.556 --> 00:54:54.373 better questions of people who've

NOTE Confidence: 0.863718375

00:54:54.373 --> 00:54:56.690 got some new app and they're asking

NOTE Confidence: 0.863718375

00:54:56.690 --> 00:54:58.810 for evidence and they're asking for.

NOTE Confidence: 0.863718375

00:54:58.810 --> 00:54:59.494 You know,

NOTE Confidence: 0.863718375

00:54:59.494 --> 00:55:00.520 implementation feasibility and

NOTE Confidence: 0.863718375

00:55:00.520 --> 00:55:02.230 all that kind of stuff.

NOTE Confidence: 0.863718375

00:55:02.230 --> 00:55:03.250 So I think we're getting better,

NOTE Confidence: 0.863718375

00:55:03.250 --> 00:55:04.846 but there has you know it,

NOTE Confidence: 0.863718375

00:55:04.850 --> 00:55:07.550 it there's definitely a potential for.

NOTE Confidence: 0.863718375

00:55:07.550 --> 00:55:08.300 Poor spending.

NOTE Confidence: 0.77087873

00:55:10.020 --> 00:55:12.370 Angie has a question online.

NOTE Confidence: 0.8933494

00:55:13.540 --> 00:55:16.717 Thank you. Thank you so much for this talk.

NOTE Confidence: 0.850748131111111

00:55:16.720 --> 00:55:19.672 It actually is very refreshing to

NOTE Confidence: 0.850748131111111

00:55:19.672 --> 00:55:22.751 actually have data behind things that

NOTE Confidence: 0.850748131111111

00:55:22.751 --> 00:55:25.817 you clinically see in the day-to-day.

NOTE Confidence: 0.850748131111111

00:55:25.820 --> 00:55:29.519 So a lot of the research that we do

NOTE Confidence: 0.850748131111111

00:55:29.519 --> 00:55:33.319 is suicidality and adolescence and

104

00:55:33.319 --> 00:55:35.473 so you know just anecdotally things

00:55:35.473 --> 00:55:38.354 that you know that is that your your

00:55:38.354 --> 00:55:40.560 patients listen to more dark music.

00:55:40.560 --> 00:55:41.706 You know, is there a way,

00:55:41.710 --> 00:55:44.454 is there a way with which we could

00:55:44.454 --> 00:55:46.946 track their Spotify and see, you know,

00:55:46.946 --> 00:55:49.090 kind of what they're listening to so that

00:55:49.149 --> 00:55:51.147 we can then send them a nudge and say,

00:55:51.150 --> 00:55:52.194 hey, you know,

00:55:52.194 --> 00:55:54.630 you're listening to too much of that

00:55:54.630 --> 00:55:57.724 music or whatever it is that they're.

00:55:57.730 --> 00:56:00.843 But then one of the things that

00:56:00.843 --> 00:56:03.590 we've come across is from,

00:56:03.590 --> 00:56:09.989 from the up down perspective of healthcare.

00:56:09.990 --> 00:56:12.786 Jokingly said e-mail is the your

00:56:12.786 --> 00:56:15.990 grandfathers but but right now that is

NOTE Confidence: 0.850748131111111

00:56:15.990 --> 00:56:18.504 how we're allowed to communicate with

NOTE Confidence: 0.850748131111111

00:56:18.504 --> 00:56:21.624 our patients when clinically we know.

NOTE Confidence: 0.850748131111111

00:56:21.624 --> 00:56:24.246 Just from just from our day-to-day

NOTE Confidence: 0.850748131111111

00:56:24.246 --> 00:56:26.530 interactions I know that I'm better

NOTE Confidence: 0.850748131111111

00:56:26.530 --> 00:56:29.730 able to reach out to my my participant,

NOTE Confidence: 0.850748131111111

00:56:29.730 --> 00:56:30.609 my adolescent participant.

NOTE Confidence: 0.850748131111111

00:56:30.609 --> 00:56:34.540 If I text them, more likely to text me back.

NOTE Confidence: 0.870527041666667

00:56:36.710 --> 00:56:39.128 From what I do in research,

NOTE Confidence: 0.870527041666667

00:56:39.130 --> 00:56:42.748 then applying that to outpatient services,

NOTE Confidence: 0.870527041666667

00:56:42.750 --> 00:56:45.300 there's a big divide because

NOTE Confidence: 0.870527041666667

00:56:45.300 --> 00:56:46.712 obviously HIPAA distractions.

NOTE Confidence: 0.870527041666667

00:56:46.712 --> 00:56:49.869 You know how how do we protect

NOTE Confidence: 0.870527041666667

00:56:49.869 --> 00:56:52.159 the patients information?

NOTE Confidence: 0.870527041666667

00:56:52.160 --> 00:56:53.485 How does this interface all

NOTE Confidence: 0.870527041666667

00:56:53.485 --> 00:56:55.440 of the data that is collected?

NOTE Confidence: 0.870527041666667

00:56:55.440 --> 00:56:56.960 How does that interface with

NOTE Confidence: 0.870527041666667

00:56:56.960 --> 00:57:00.890 EPIC for example as a, as an ER?

NOTE Confidence: 0.870527041666667

00:57:00.890 --> 00:57:02.200 So I'm I'm wondering.

NOTE Confidence: 0.8285522975

00:57:04.230 --> 00:57:08.686 How are you or how do you envision

NOTE Confidence: 0.8285522975

00:57:08.690 --> 00:57:12.402 taking some of the the data that you've

NOTE Confidence: 0.8285522975

00:57:12.402 --> 00:57:15.805 acquired to convince some of these

NOTE Confidence: 0.8285522975

00:57:15.805 --> 00:57:18.794 larger echelons of healthcare to allow

NOTE Confidence: 0.8285522975

00:57:18.794 --> 00:57:21.650 for us to have a better relationship,

NOTE Confidence: 0.8285522975

00:57:21.650 --> 00:57:26.347 even if it is through these technological

NOTE Confidence: 0.8285522975

00:57:26.350 --> 00:57:28.078 devices with our adolescents,

NOTE Confidence: 0.8285522975

00:57:28.078 --> 00:57:29.374 because developmentally that's

NOTE Confidence: 0.8285522975

00:57:29.374 --> 00:57:31.405 where they're at and that's

NOTE Confidence: 0.8285522975

00:57:31.405 --> 00:57:33.090 what they're expecting from us.

NOTE Confidence: 0.8285522975

00:57:33.090 --> 00:57:34.660 We need to be mobile.

NOTE Confidence: 0.8285522975

00:57:34.660 --> 00:57:36.008 For for our patients.

NOTE Confidence: 0.823379808

00:57:37.340 --> 00:57:39.960 Yeah, great. 2 great points.

NOTE Confidence: 0.823379808

00:57:39.960 --> 00:57:41.040 I'll take the second one first.

NOTE Confidence: 0.823379808

00:57:41.040 --> 00:57:43.938 So the. Yeah, you're absolutely right.

NOTE Confidence: 0.823379808

00:57:43.940 --> 00:57:45.095 I don't know if you've ever called

NOTE Confidence: 0.823379808

00:57:45.095 --> 00:57:46.362 one of your adolescent kids on the

NOTE Confidence: 0.823379808

00:57:46.362 --> 00:57:47.680 phone and they picked up and said,

NOTE Confidence: 0.823379808

00:57:47.680 --> 00:57:48.670 why didn't you text me?

NOTE Confidence: 0.823379808

00:57:48.670 --> 00:57:51.022 You know, because they really like

NOTE Confidence: 0.823379808

00:57:51.022 --> 00:57:52.790 interacting via text. And so,

NOTE Confidence: 0.823379808

00:57:52.790 --> 00:57:54.855 but this is actually a solvable problem.

NOTE Confidence: 0.823379808

00:57:54.860 --> 00:57:57.476 I mean, our system is fully HIPAA compliant,

NOTE Confidence: 0.823379808

00:57:57.480 --> 00:57:59.370 so you can build it to a

NOTE Confidence: 0.823379808

00:57:59.370 --> 00:58:00.180 HIPAA compliant standard.

NOTE Confidence: 0.823379808

00:58:00.180 --> 00:58:01.573 And the problem is that and and

NOTE Confidence: 0.823379808

00:58:01.573 --> 00:58:03.018 so then it means, you know,

NOTE Confidence: 0.823379808

00:58:03.018 --> 00:58:05.050 but a lot of the solutions that the

NOTE Confidence: 0.823379808

00:58:05.108 --> 00:58:07.355 that the adolescent is using for their

NOTE Confidence: 0.823379808

00:58:07.355 --> 00:58:09.399 regular texting or instant messaging.

NOTE Confidence: 0.823379808

00:58:09.400 --> 00:58:09.940 Or not.

NOTE Confidence: 0.823379808

00:58:09.940 --> 00:58:12.100 And so that's one of the advantages of

NOTE Confidence: 0.823379808

00:58:12.168 --> 00:58:14.337 having a kind of an app like ours is

NOTE Confidence: 0.823379808

00:58:14.337 --> 00:58:16.880 that you've actually got a HIPAA compliant.

NOTE Confidence: 0.823379808

00:58:16.880 --> 00:58:18.470 Messaging system within it and that

NOTE Confidence: 0.823379808

00:58:18.470 --> 00:58:20.159 the apps already on their phone.

NOTE Confidence: 0.823379808

00:58:20.160 --> 00:58:21.752 So there are there are ways to deal

NOTE Confidence: 0.823379808

00:58:21.752 --> 00:58:25.186 with that, but I agree and and and.

NOTE Confidence: 0.823379808

00:58:25.190 --> 00:58:26.156 Patients love it.

NOTE Confidence: 0.823379808

00:58:26.156 --> 00:58:28.410 I love having that kind of capacity

NOTE Confidence: 0.823379808

00:58:28.471 --> 00:58:30.559 to check in and it's a little bit

NOTE Confidence: 0.823379808

00:58:30.559 --> 00:58:32.236 like when Marshall Lanahan started

NOTE Confidence: 0.823379808

00:58:32.236 --> 00:58:34.420 you know having a therapist and

NOTE Confidence: 0.823379808

00:58:34.420 --> 00:58:35.715 DBT carried phones with them and

NOTE Confidence: 0.823379808

00:58:35.715 --> 00:58:36.820 everyone said like Oh my God,

NOTE Confidence: 0.823379808

00:58:36.820 --> 00:58:37.916 you can't do that.

NOTE Confidence: 0.823379808

00:58:37.916 --> 00:58:39.182 These, you know these clients

NOTE Confidence: 0.823379808

00:58:39.182 --> 00:58:40.422 will be just constantly ringing.

NOTE Confidence: 0.823379808

00:58:40.430 --> 00:58:42.208 You turns out not to be true

NOTE Confidence: 0.823379808

00:58:42.208 --> 00:58:43.360 most of the time.

NOTE Confidence: 0.823379808

00:58:43.360 --> 00:58:45.824 You know most clients actually use it very

NOTE Confidence: 0.823379808

00:58:45.824 --> 00:58:47.988 responsibly and so and that's even with the,

NOTE Confidence: 0.823379808

00:58:47.990 --> 00:58:49.020 you know, the borderline clients

NOTE Confidence: 0.823379808

00:58:49.020 --> 00:58:50.050 that they were working with,

NOTE Confidence: 0.823379808

00:58:50.050 --> 00:58:51.028 with the PT.

NOTE Confidence: 0.823379808

00:58:51.028 --> 00:58:51.354 So.

NOTE Confidence: 0.823379808

00:58:51.354 --> 00:58:53.310 So I think that you know,

NOTE Confidence: 0.823379808

00:58:53.310 --> 00:58:55.010 patients really appreciate having greater

NOTE Confidence: 0.823379808

00:58:55.010 --> 00:58:57.538 access and they and they tend to use it.

NOTE Confidence: 0.823379808

00:58:57.540 --> 00:59:01.446 Very um, but but you know.

NOTE Confidence: 0.823379808

00:59:01.450 --> 00:59:02.787 Legal systems can be built to be

NOTE Confidence: 0.823379808

00:59:02.787 --> 00:59:04.152 HIPAA compliant and so I think it's a

NOTE Confidence: 0.823379808

00:59:04.152 --> 00:59:05.389 question of how you how you do that.

NOTE Confidence: 0.823379808

00:59:05.390 --> 00:59:06.270 Now just remind me what

NOTE Confidence: 0.823379808

00:59:06.270 --> 00:59:06.974 your first question was.

NOTE Confidence: 0.823379808

00:59:06.980 --> 00:59:09.108 I thought it was really interesting and.

NOTE Confidence: 0.823379808

00:59:09.110 --> 00:59:09.680 Wanted to say

NOTE Confidence: 0.69015506

00:59:09.690 --> 00:59:11.940 it was about checking their Spotify.

NOTE Confidence: 0.901580094285714

00:59:13.520 --> 00:59:15.277 Really? Yeah, we can totally do that.

NOTE Confidence: 0.901580094285714

00:59:15.280 --> 00:59:17.856 So we can look at the music

NOTE Confidence: 0.901580094285714

00:59:17.856 --> 00:59:19.650 and there's actually Spotify.

NOTE Confidence: 0.901580094285714

00:59:19.650 --> 00:59:21.258 We actually use their engine because

NOTE Confidence: 0.901580094285714

00:59:21.258 --> 00:59:22.925 they have an engine for music

NOTE Confidence: 0.901580094285714

00:59:22.925 --> 00:59:24.539 recommendation and they have every song

NOTE Confidence: 0.901580094285714

00:59:24.539 --> 00:59:26.793 in the world listed and they rated on

NOTE Confidence: 0.901580094285714

00:59:26.793 --> 00:59:28.224 these musical and emotional qualities.

NOTE Confidence: 0.901580094285714

00:59:28.224 --> 00:59:30.422 But once again, the important thing is

NOTE Confidence: 0.901580094285714

00:59:30.422 --> 00:59:32.569 not all kids who listen to Norwegian

NOTE Confidence: 0.901580094285714

00:59:32.569 --> 00:59:34.969 death metal are about to kill themselves,

NOTE Confidence: 0.901580094285714

00:59:34.970 --> 00:59:35.918 right? It it it.

NOTE Confidence: 0.901580094285714

00:59:35.918 --> 00:59:38.076 But if you've got a kid who who

NOTE Confidence: 0.901580094285714

00:59:38.076 --> 00:59:39.766 doesn't normally listen to that,

NOTE Confidence: 0.901580094285714

00:59:39.770 --> 00:59:42.304 so it's about the within person change,

NOTE Confidence: 0.901580094285714

00:59:42.310 --> 00:59:42.554 right?

NOTE Confidence: 0.901580094285714

00:59:42.554 --> 00:59:44.506 And if they suddenly are listening to it?

NOTE Confidence: 0.901580094285714

00:59:44.510 --> 00:59:46.080 A lot that might be,

NOTE Confidence: 0.901580094285714

00:59:46.080 --> 00:59:48.879 I mean this is a speculation at this point,

NOTE Confidence: 0.901580094285714

00:59:48.880 --> 00:59:51.984 but so it's important not to say it's,

NOTE Confidence: 0.901580094285714

00:59:51.990 --> 00:59:53.383 I think it's more state like than

NOTE Confidence: 0.901580094285714

00:59:53.383 --> 00:59:54.809 trade like you have to understand

00:59:54.809 --> 00:59:56.109 the usual pattern of listening.

00:59:56.110 --> 00:59:57.762 We don't want to say everyone who

00:59:57.762 --> 00:59:59.579 loves ex kind of music is you know,

00:59:59.580 --> 01:00:01.660 got a mental health issue or in need.

01:00:01.660 --> 01:00:03.256 But I think if you see changes,

01:00:03.260 --> 01:00:04.528 dynamic changes across time.

01:00:04.528 --> 01:00:06.430 We do know anecdotally in clinical

01:00:06.488 --> 01:00:07.816 circumstances where sometimes kids

01:00:07.816 --> 01:00:09.808 who are getting very are having

01:00:09.868 --> 01:00:11.410 a lot of suicidal ideation will

01:00:11.410 --> 01:00:13.241 listen to a certain kind of music.

01:00:13.241 --> 01:00:15.110 That for them is very much associated

01:00:15.168 --> 01:00:16.750 with that mood state and if there's

01:00:16.750 --> 01:00:18.408 a lot of listening to that,

01:00:18.410 --> 01:00:20.300 that could be a marker.

01:00:20.300 --> 01:00:22.320 Yeah.

NOTE Confidence: 0.901580094285714

01:00:22.320 --> 01:00:24.456 So we are just about at time,

NOTE Confidence: 0.901580094285714

01:00:24.460 --> 01:00:25.120 but I would just like

NOTE Confidence: 0.85100610625

01:00:25.130 --> 01:00:26.790 to thank Doctor Allen for

NOTE Confidence: 0.85100610625

01:00:26.790 --> 01:00:27.786 a wonderful presentation.