

WEBVTT

NOTE duration:"00:59:17"

NOTE recognizability:0.856

NOTE language:en-us

NOTE Confidence: 0.860185248888889

00:00:00.000 --> 00:00:02.170 And so it is a particular pleasure

NOTE Confidence: 0.860185248888889

00:00:02.170 --> 00:00:04.956 for me today to introduce our Joint

NOTE Confidence: 0.860185248888889

00:00:04.956 --> 00:00:06.740 Sleep Conference speaker today,

NOTE Confidence: 0.860185248888889

00:00:06.740 --> 00:00:08.000 Doctor Brian Miner,

NOTE Confidence: 0.860185248888889

00:00:08.000 --> 00:00:10.520 who is my Yale colleague and

NOTE Confidence: 0.860185248888889

00:00:10.520 --> 00:00:13.196 happens to be a talented researcher.

NOTE Confidence: 0.860185248888889

00:00:13.200 --> 00:00:16.539 So Doctor Miner hails from McGill University.

NOTE Confidence: 0.860185248888889

00:00:16.540 --> 00:00:17.720 Where she received her

NOTE Confidence: 0.860185248888889

00:00:17.720 --> 00:00:18.900 undergraduate degree in Biology,

NOTE Confidence: 0.860185248888889

00:00:18.900 --> 00:00:21.819 followed by medical school at SUNY Downstate,

NOTE Confidence: 0.860185248888889

00:00:21.820 --> 00:00:25.180 and then she did her residency chief

NOTE Confidence: 0.860185248888889

00:00:25.180 --> 00:00:27.100 residency, her multiple fellowships,

NOTE Confidence: 0.860185248888889

00:00:27.100 --> 00:00:28.540 including geriatrics and

NOTE Confidence: 0.860185248888889

00:00:28.540 --> 00:00:30.460 Sleep Medicine at Yale.  
NOTE Confidence: 0.860185248888889

00:00:30.460 --> 00:00:33.835 And she's been on faculty at Yale ever since.  
NOTE Confidence: 0.860185248888889

00:00:33.840 --> 00:00:37.184 And so Brianna's work has been at the  
NOTE Confidence: 0.860185248888889

00:00:37.184 --> 00:00:39.678 intersection of aging and sleep and.  
NOTE Confidence: 0.860185248888889

00:00:39.680 --> 00:00:40.844 Given the state of the US  
NOTE Confidence: 0.860185248888889

00:00:40.844 --> 00:00:41.860 population in respect to both,  
NOTE Confidence: 0.860185248888889

00:00:41.860 --> 00:00:44.326 I think we're all likely to be in her  
NOTE Confidence: 0.860185248888889

00:00:44.326 --> 00:00:46.728 office at some point in time or another.  
NOTE Confidence: 0.860185248888889

00:00:46.730 --> 00:00:48.812 And her research has focused on  
NOTE Confidence: 0.860185248888889

00:00:48.812 --> 00:00:50.200 redefining sleep disorders and  
NOTE Confidence: 0.860185248888889

00:00:50.258 --> 00:00:52.048 sleep deficiency in the elderly,  
NOTE Confidence: 0.860185248888889

00:00:52.050 --> 00:00:54.456 taking to the account the complexity  
NOTE Confidence: 0.860185248888889

00:00:54.456 --> 00:00:56.060 of comorbidities from ecological,  
NOTE Confidence: 0.860185248888889

00:00:56.060 --> 00:00:58.080 functional and psychosocial factors that  
NOTE Confidence: 0.860185248888889

00:00:58.080 --> 00:01:01.009 impact quality of life and sleep quality.  
NOTE Confidence: 0.860185248888889

00:01:01.010 --> 00:01:03.488 And so she is funded by multiple

NOTE Confidence: 0.860185248888889  
00:01:03.488 --> 00:01:05.557 awards from the National Institute  
NOTE Confidence: 0.860185248888889  
00:01:05.557 --> 00:01:08.329 of Aging and the Pepper Center,  
NOTE Confidence: 0.860185248888889  
00:01:08.330 --> 00:01:10.286 as well as a prestigious beats  
NOTE Confidence: 0.860185248888889  
00:01:10.286 --> 00:01:11.590 and Career Development Award,  
NOTE Confidence: 0.860185248888889  
00:01:11.590 --> 00:01:12.730 which is geared towards growing  
NOTE Confidence: 0.860185248888889  
00:01:12.730 --> 00:01:14.370 leaders in the field of geriatrics.  
NOTE Confidence: 0.860185248888889  
00:01:14.370 --> 00:01:16.058 So Congrats to Brianne.  
NOTE Confidence: 0.860185248888889  
00:01:16.058 --> 00:01:18.590 She's been honored in multiple awards,  
NOTE Confidence: 0.860185248888889  
00:01:18.590 --> 00:01:20.442 including Best New Investigator  
NOTE Confidence: 0.860185248888889  
00:01:20.442 --> 00:01:22.757 Award from the American Geriatric  
NOTE Confidence: 0.860185248888889  
00:01:22.757 --> 00:01:24.858 Society and the Young Investigators  
NOTE Confidence: 0.860185248888889  
00:01:24.858 --> 00:01:27.216 Research Forum Award from the ASM.  
NOTE Confidence: 0.860185248888889  
00:01:27.220 --> 00:01:29.920 And on a personal note,  
NOTE Confidence: 0.860185248888889  
00:01:29.920 --> 00:01:31.534 Brian is a caring and thoughtful  
NOTE Confidence: 0.860185248888889  
00:01:31.534 --> 00:01:32.610 physician and an outstanding  
NOTE Confidence: 0.860185248888889

00:01:32.657 --> 00:01:33.758 collaborator and teacher.  
NOTE Confidence: 0.860185248888889

00:01:33.760 --> 00:01:35.839 And so I'm really excited to hear her talk  
NOTE Confidence: 0.860185248888889

00:01:35.839 --> 00:01:37.858 today and sleep deficiency in the elderly,  
NOTE Confidence: 0.860185248888889

00:01:37.860 --> 00:01:39.565 so please give a warm  
NOTE Confidence: 0.860185248888889

00:01:39.565 --> 00:01:40.929 welcome to doctor minor.  
NOTE Confidence: 0.873205435666667

00:01:43.310 --> 00:01:44.934 Thank you, Andre. Umm,  
NOTE Confidence: 0.873205435666667

00:01:44.934 --> 00:01:47.903 that was a very gracious and warm  
NOTE Confidence: 0.873205435666667

00:01:47.903 --> 00:01:50.621 introduction which can only be given  
NOTE Confidence: 0.873205435666667

00:01:50.621 --> 00:01:54.059 by somebody who has done just as much  
NOTE Confidence: 0.873205435666667

00:01:54.059 --> 00:01:56.401 post residency training as I have.  
NOTE Confidence: 0.873205435666667

00:01:56.401 --> 00:01:58.507 And we also did our sleep  
NOTE Confidence: 0.873205435666667

00:01:58.507 --> 00:02:00.349 fellowship at the same time.  
NOTE Confidence: 0.873205435666667

00:02:00.350 --> 00:02:03.350 So Andre and I go back a ways.  
NOTE Confidence: 0.873205435666667

00:02:03.350 --> 00:02:05.688 So I'm going to be talking about  
NOTE Confidence: 0.873205435666667

00:02:05.688 --> 00:02:08.012 evaluation of sleep deficiency in older  
NOTE Confidence: 0.873205435666667

00:02:08.012 --> 00:02:12.077 adults and so I can advance my slide.

NOTE Confidence: 0.873205435666667  
00:02:12.080 --> 00:02:14.108 There we go.  
NOTE Confidence: 0.873205435666667  
00:02:14.110 --> 00:02:16.348 I'm going to start with acknowledgements.  
NOTE Confidence: 0.873205435666667  
00:02:16.350 --> 00:02:17.860 While I have everybody's attention.  
NOTE Confidence: 0.873205435666667  
00:02:17.860 --> 00:02:19.042 I'm going to get my thank  
NOTE Confidence: 0.873205435666667  
00:02:19.042 --> 00:02:20.070 yous out of the way.  
NOTE Confidence: 0.873205435666667  
00:02:20.070 --> 00:02:21.558 So as Andre mentioned,  
NOTE Confidence: 0.873205435666667  
00:02:21.558 --> 00:02:24.452 I sort of started this career through  
NOTE Confidence: 0.873205435666667  
00:02:24.452 --> 00:02:26.800 internal medicine and geriatrics.  
NOTE Confidence: 0.873205435666667  
00:02:26.800 --> 00:02:29.243 And so I'm very thankful to have  
NOTE Confidence: 0.873205435666667  
00:02:29.243 --> 00:02:30.938 had the opportunity to benefit  
NOTE Confidence: 0.873205435666667  
00:02:30.938 --> 00:02:32.814 from a T32IN geriatrics and from  
NOTE Confidence: 0.873205435666667  
00:02:32.814 --> 00:02:34.770 our pepper center here at Yale.  
NOTE Confidence: 0.873205435666667  
00:02:34.770 --> 00:02:36.810 That provided some of that early,  
NOTE Confidence: 0.873205435666667  
00:02:36.810 --> 00:02:37.980 very crucial funding.  
NOTE Confidence: 0.873205435666667  
00:02:37.980 --> 00:02:41.256 And I stand on the shoulders of these  
NOTE Confidence: 0.873205435666667

00:02:41.256 --> 00:02:43.586 giants and geriatrics and aging.  
NOTE Confidence: 0.873205435666667

00:02:43.590 --> 00:02:46.430 Research Mary Tinetti up here.  
NOTE Confidence: 0.710248283333333

00:02:48.760 --> 00:02:52.090 Was she's our outgoing section chief,  
NOTE Confidence: 0.710248283333333

00:02:52.090 --> 00:02:53.790 and she, frankly, you know,  
NOTE Confidence: 0.710248283333333

00:02:53.790 --> 00:02:55.650 supported me when nobody else would.  
NOTE Confidence: 0.710248283333333

00:02:55.650 --> 00:02:57.942 And then Terry freed our incoming  
NOTE Confidence: 0.710248283333333

00:02:57.942 --> 00:03:00.286 section chief, who provided some really  
NOTE Confidence: 0.710248283333333

00:03:00.286 --> 00:03:02.650 crucial and important advice for me  
NOTE Confidence: 0.710248283333333

00:03:02.717 --> 00:03:04.949 at several junctures in my career,  
NOTE Confidence: 0.710248283333333

00:03:04.950 --> 00:03:07.070 including when I was writing my K award.  
NOTE Confidence: 0.710248283333333

00:03:07.070 --> 00:03:08.854 And then Tom Gill,  
NOTE Confidence: 0.710248283333333

00:03:08.854 --> 00:03:11.084 who's my aging mentor now,  
NOTE Confidence: 0.710248283333333

00:03:11.090 --> 00:03:12.878 and Tom is really a thought  
NOTE Confidence: 0.710248283333333

00:03:12.878 --> 00:03:14.070 leader in aging research,  
NOTE Confidence: 0.710248283333333

00:03:14.070 --> 00:03:16.560 and he's an incredible mentor and  
NOTE Confidence: 0.710248283333333

00:03:16.560 --> 00:03:18.929 he's been very supportive and so I.

NOTE Confidence: 0.7102482833333333  
00:03:18.930 --> 00:03:20.700 Also want to highlight here,  
NOTE Confidence: 0.7102482833333333  
00:03:20.700 --> 00:03:23.424 the American Academy of Sleep Medicine  
NOTE Confidence: 0.7102482833333333  
00:03:23.424 --> 00:03:26.615 Foundation was sort of my first external  
NOTE Confidence: 0.7102482833333333  
00:03:26.615 --> 00:03:28.696 funding and was really a lifeline  
NOTE Confidence: 0.7102482833333333  
00:03:28.696 --> 00:03:30.900 for me at a very important time.  
NOTE Confidence: 0.7102482833333333  
00:03:30.900 --> 00:03:32.514 Maybe things could have gone differently  
NOTE Confidence: 0.7102482833333333  
00:03:32.514 --> 00:03:34.458 if I didn't get that first award.  
NOTE Confidence: 0.7102482833333333  
00:03:34.460 --> 00:03:36.020 So I'm very thankful for that.  
NOTE Confidence: 0.7102482833333333  
00:03:36.020 --> 00:03:37.838 And then as, as Andre mentioned,  
NOTE Confidence: 0.7102482833333333  
00:03:37.840 --> 00:03:40.745 I'm funded by the NIH through the  
NOTE Confidence: 0.7102482833333333  
00:03:40.745 --> 00:03:43.319 GEMSTORE and the Bison programs.  
NOTE Confidence: 0.7102482833333333  
00:03:43.320 --> 00:03:46.964 So during my postdoctoral  
NOTE Confidence: 0.7102482833333333  
00:03:46.964 --> 00:03:49.316 fellowship training and research,  
NOTE Confidence: 0.7102482833333333  
00:03:49.320 --> 00:03:52.080 I was also working at our Adler Clinic,  
NOTE Confidence: 0.7102482833333333  
00:03:52.080 --> 00:03:54.558 which is our geriatric assessment clinic.  
NOTE Confidence: 0.7102482833333333

00:03:54.560 --> 00:03:57.122 This picture you see is a statue  
NOTE Confidence: 0.7102482833333333

00:03:57.122 --> 00:03:59.318 that sits outside of the clinic.  
NOTE Confidence: 0.7102482833333333

00:03:59.320 --> 00:04:04.060 And in this clinic we really take care of a  
NOTE Confidence: 0.7102482833333333

00:04:04.060 --> 00:04:07.140 patient population with a lot of complexity,  
NOTE Confidence: 0.7102482833333333

00:04:07.140 --> 00:04:08.448 lot of medical problems.  
NOTE Confidence: 0.7102482833333333

00:04:08.448 --> 00:04:11.440 That or as we would say in geriatrics,  
NOTE Confidence: 0.7102482833333333

00:04:11.440 --> 00:04:11.797 multimorbidity.  
NOTE Confidence: 0.7102482833333333

00:04:11.797 --> 00:04:13.939 That's a term you'll hear me  
NOTE Confidence: 0.7102482833333333

00:04:13.939 --> 00:04:16.108 throw around a little bit today.  
NOTE Confidence: 0.7102482833333333

00:04:16.110 --> 00:04:18.195 Polypharmacy, many medications.  
NOTE Confidence: 0.7102482833333333

00:04:18.195 --> 00:04:22.365 They have cognitive and physical impairments.  
NOTE Confidence: 0.7102482833333333

00:04:22.370 --> 00:04:26.978 And our mission is to maintain the health.  
NOTE Confidence: 0.7102482833333333

00:04:26.980 --> 00:04:30.760 Quality and independence of this population.  
NOTE Confidence: 0.7102482833333333

00:04:30.760 --> 00:04:32.944 And really if at the other clinic we  
NOTE Confidence: 0.7102482833333333

00:04:32.944 --> 00:04:35.538 focus a lot on maintaining independence.  
NOTE Confidence: 0.7102482833333333

00:04:35.540 --> 00:04:38.078 It's the goal of our patients,

NOTE Confidence: 0.7102482833333333  
00:04:38.080 --> 00:04:39.796 it's the goal of the families  
NOTE Confidence: 0.7102482833333333  
00:04:39.796 --> 00:04:40.940 that care for them.  
NOTE Confidence: 0.7102482833333333  
00:04:40.940 --> 00:04:42.080 You know, we're really trying  
NOTE Confidence: 0.7102482833333333  
00:04:42.080 --> 00:04:43.740 to keep them in the community.  
NOTE Confidence: 0.7102482833333333  
00:04:43.740 --> 00:04:46.002 And this is really where my  
NOTE Confidence: 0.7102482833333333  
00:04:46.002 --> 00:04:47.980 interest in sleep was born.  
NOTE Confidence: 0.7102482833333333  
00:04:47.980 --> 00:04:48.458 And so,  
NOTE Confidence: 0.7102482833333333  
00:04:48.458 --> 00:04:48.936 you know,  
NOTE Confidence: 0.7102482833333333  
00:04:48.936 --> 00:04:51.057 I'm going to tell you guys some things  
NOTE Confidence: 0.7102482833333333  
00:04:51.057 --> 00:04:53.255 that are probably not surprising to you,  
NOTE Confidence: 0.7102482833333333  
00:04:53.260 --> 00:04:55.456 but sleep problems in this community,  
NOTE Confidence: 0.7102482833333333  
00:04:55.460 --> 00:04:57.260 very common and very detrimental.  
NOTE Confidence: 0.7102482833333333  
00:04:57.260 --> 00:04:58.476 That's what I'm showing.  
NOTE Confidence: 0.7102482833333333  
00:04:58.476 --> 00:05:00.300 So as the number of chronic  
NOTE Confidence: 0.7102482833333333  
00:05:00.361 --> 00:05:01.589 conditions increases,  
NOTE Confidence: 0.7102482833333333

00:05:01.590 --> 00:05:03.675 the prevalence of reporting a  
NOTE Confidence: 0.7102482833333333

00:05:03.675 --> 00:05:05.343 sleep problem also increases.  
NOTE Confidence: 0.7102482833333333

00:05:05.350 --> 00:05:07.048 So when people have more than  
NOTE Confidence: 0.7102482833333333

00:05:07.048 --> 00:05:07.897 three chronic conditions,  
NOTE Confidence: 0.7102482833333333

00:05:07.900 --> 00:05:09.910 we can see nearly 70% are  
NOTE Confidence: 0.7102482833333333

00:05:09.910 --> 00:05:12.230 reporting a sleep problem.  
NOTE Confidence: 0.7102482833333333

00:05:12.230 --> 00:05:13.970 And these sleep problems really  
NOTE Confidence: 0.7102482833333333

00:05:13.970 --> 00:05:16.200 run counter to the mission of  
NOTE Confidence: 0.7102482833333333

00:05:16.200 --> 00:05:17.884 geriatrics of maintaining that  
NOTE Confidence: 0.7102482833333333

00:05:17.884 --> 00:05:19.989 quality and health and independence.  
NOTE Confidence: 0.7102482833333333

00:05:19.990 --> 00:05:22.446 And I'm not going to talk so much  
NOTE Confidence: 0.7102482833333333

00:05:22.446 --> 00:05:24.366 today about cardiovascular and  
NOTE Confidence: 0.7102482833333333

00:05:24.366 --> 00:05:26.826 metabolic and immunologic outcomes.  
NOTE Confidence: 0.7102482833333333

00:05:26.830 --> 00:05:28.432 I'm really going to focus on  
NOTE Confidence: 0.7102482833333333

00:05:28.432 --> 00:05:30.160 those things that we care about,  
NOTE Confidence: 0.7102482833333333

00:05:30.160 --> 00:05:33.230 especially in an aging population.

NOTE Confidence: 0.7102482833333333  
00:05:33.230 --> 00:05:36.100 And so we know that sleep problems  
NOTE Confidence: 0.7102482833333333  
00:05:36.100 --> 00:05:39.213 lead to falls and functional  
NOTE Confidence: 0.7102482833333333  
00:05:39.213 --> 00:05:41.007 impairment hospitalization.  
NOTE Confidence: 0.7102482833333333  
00:05:41.010 --> 00:05:41.724 Depression,  
NOTE Confidence: 0.7102482833333333  
00:05:41.724 --> 00:05:44.580 cognitive impairment and dementia  
NOTE Confidence: 0.7102482833333333  
00:05:44.580 --> 00:05:46.008 and institutionalization.  
NOTE Confidence: 0.7102482833333333  
00:05:46.010 --> 00:05:48.782 And it's probably that last point  
NOTE Confidence: 0.7102482833333333  
00:05:48.782 --> 00:05:51.495 that really got me to be very  
NOTE Confidence: 0.7102482833333333  
00:05:51.495 --> 00:05:54.741 interested in sleep to see this is a  
NOTE Confidence: 0.7102482833333333  
00:05:54.741 --> 00:05:57.026 problem that really was modifiable.  
NOTE Confidence: 0.7102482833333333  
00:05:57.030 --> 00:05:58.738 But the issue was that I didn't  
NOTE Confidence: 0.7102482833333333  
00:05:58.738 --> 00:06:00.150 really have the right tools.  
NOTE Confidence: 0.7102482833333333  
00:06:00.150 --> 00:06:01.119 And, you know,  
NOTE Confidence: 0.7102482833333333  
00:06:01.119 --> 00:06:03.650 I knew the things that we couldn't do.  
NOTE Confidence: 0.7102482833333333  
00:06:03.650 --> 00:06:05.710 And so many of you may be familiar with this.  
NOTE Confidence: 0.8652357283333333

00:06:05.710 --> 00:06:08.468 This is the beers criteria that's published  
NOTE Confidence: 0.8652357283333333

00:06:08.468 --> 00:06:10.929 by the American Geriatric Society.  
NOTE Confidence: 0.8652357283333333

00:06:10.930 --> 00:06:14.017 And so these. The beers criteria really  
NOTE Confidence: 0.8652357283333333

00:06:14.017 --> 00:06:15.340 highlights potentially inappropriate  
NOTE Confidence: 0.8652357283333333

00:06:15.407 --> 00:06:17.207 medication use in older people.  
NOTE Confidence: 0.8652357283333333

00:06:17.210 --> 00:06:19.042 And So what you see here is all  
NOTE Confidence: 0.8652357283333333

00:06:19.042 --> 00:06:20.609 of the medications we might  
NOTE Confidence: 0.8652357283333333

00:06:20.609 --> 00:06:22.344 use to help people sleep.  
NOTE Confidence: 0.8652357283333333

00:06:22.350 --> 00:06:24.080 So we have your benzos,  
NOTE Confidence: 0.8652357283333333

00:06:24.080 --> 00:06:26.600 your Z drugs, you know any other  
NOTE Confidence: 0.8652357283333333

00:06:26.600 --> 00:06:28.708 medications we might use for sleep.  
NOTE Confidence: 0.8652357283333333

00:06:28.710 --> 00:06:31.293 And the the strength of the recommendation  
NOTE Confidence: 0.8652357283333333

00:06:31.293 --> 00:06:33.894 is strong that we don't use these  
NOTE Confidence: 0.8652357283333333

00:06:33.894 --> 00:06:36.030 medications and it tells you exactly  
NOTE Confidence: 0.8652357283333333

00:06:36.100 --> 00:06:38.250 why here with the rationale increase  
NOTE Confidence: 0.8652357283333333

00:06:38.250 --> 00:06:40.250 in risk of cognitive impairment,

NOTE Confidence: 0.865235728333333  
00:06:40.250 --> 00:06:42.113 delirium falls, fractures.  
NOTE Confidence: 0.865235728333333  
00:06:42.113 --> 00:06:44.597 So in some ways,  
NOTE Confidence: 0.865235728333333  
00:06:44.600 --> 00:06:46.748 it almost seems like the cure  
NOTE Confidence: 0.865235728333333  
00:06:46.748 --> 00:06:48.870 is worse than the disease.  
NOTE Confidence: 0.865235728333333  
00:06:48.870 --> 00:06:50.585 And so this is what really led  
NOTE Confidence: 0.865235728333333  
00:06:50.585 --> 00:06:52.429 me to the Sleep Fellowship,  
NOTE Confidence: 0.865235728333333  
00:06:52.430 --> 00:06:55.391 because I felt like I needed better  
NOTE Confidence: 0.865235728333333  
00:06:55.391 --> 00:06:58.688 tools to serve this population and to.  
NOTE Confidence: 0.865235728333333  
00:06:58.690 --> 00:07:00.706 To really to treat these sleep problems.  
NOTE Confidence: 0.865235728333333  
00:07:00.710 --> 00:07:04.150 And so that's where I got to meet  
NOTE Confidence: 0.865235728333333  
00:07:04.150 --> 00:07:07.264 Andre and a lot of other people who are  
NOTE Confidence: 0.865235728333333  
00:07:07.264 --> 00:07:09.590 listening to this presentation today,  
NOTE Confidence: 0.865235728333333  
00:07:09.590 --> 00:07:11.726 this really great group of people,  
NOTE Confidence: 0.865235728333333  
00:07:11.730 --> 00:07:13.478 a lot of fun,  
NOTE Confidence: 0.865235728333333  
00:07:13.478 --> 00:07:15.226 but also incredible clinical  
NOTE Confidence: 0.865235728333333

00:07:15.226 --> 00:07:17.380 and research mentors for me.  
NOTE Confidence: 0.8652357283333333

00:07:17.380 --> 00:07:18.644 And so in particular,  
NOTE Confidence: 0.8652357283333333

00:07:18.644 --> 00:07:20.540 I started to work with Clara  
NOTE Confidence: 0.8652357283333333

00:07:20.612 --> 00:07:22.260 Yaggi and Melissa Kanawat,  
NOTE Confidence: 0.8652357283333333

00:07:22.260 --> 00:07:25.025 their mentors on my K award and  
NOTE Confidence: 0.8652357283333333

00:07:25.025 --> 00:07:27.528 really helping me to bring that  
NOTE Confidence: 0.8652357283333333

00:07:27.528 --> 00:07:29.994 sleep expertise to the study of  
NOTE Confidence: 0.8652357283333333

00:07:29.994 --> 00:07:32.667 older adults with sleep problems.  
NOTE Confidence: 0.8959720075

00:07:35.260 --> 00:07:38.424 So with that sort of short introduction  
NOTE Confidence: 0.8959720075

00:07:38.424 --> 00:07:40.378 of how I got to where I am,  
NOTE Confidence: 0.8959720075

00:07:40.380 --> 00:07:41.790 I'm now going to tell you  
NOTE Confidence: 0.8959720075

00:07:41.790 --> 00:07:43.280 about the rest of the talk.  
NOTE Confidence: 0.8959720075

00:07:43.280 --> 00:07:46.196 So I'm going to talk about a case and  
NOTE Confidence: 0.8959720075

00:07:46.196 --> 00:07:49.145 then maybe sort of quickly go through  
NOTE Confidence: 0.8959720075

00:07:49.145 --> 00:07:52.221 some unique aspects of sleep in older  
NOTE Confidence: 0.8959720075

00:07:52.221 --> 00:07:55.245 adults because you know this is probably.

NOTE Confidence: 0.8959720075

00:07:55.250 --> 00:07:56.587 Not due to a lot of you.

NOTE Confidence: 0.8959720075

00:07:56.590 --> 00:07:58.270 This is this is probably stuff you know,

NOTE Confidence: 0.8959720075

00:07:58.270 --> 00:07:59.846 but it it felt like we should at

NOTE Confidence: 0.8959720075

00:07:59.846 --> 00:08:01.245 least touch upon it and highlight

NOTE Confidence: 0.8959720075

00:08:01.245 --> 00:08:02.673 those things to make sure we're

NOTE Confidence: 0.8959720075

00:08:02.721 --> 00:08:04.065 all on the same playing field.

NOTE Confidence: 0.8959720075

00:08:04.070 --> 00:08:06.128 And then I'll talk about sleep deficiency,

NOTE Confidence: 0.8959720075

00:08:06.130 --> 00:08:06.799 what it is,

NOTE Confidence: 0.8959720075

00:08:06.799 --> 00:08:08.360 some of my earlier work looking at

NOTE Confidence: 0.8959720075

00:08:08.414 --> 00:08:09.844 self reported sleep deficiency and

NOTE Confidence: 0.8959720075

00:08:09.844 --> 00:08:11.961 some of the newer things I've been

NOTE Confidence: 0.8959720075

00:08:11.961 --> 00:08:13.536 looking at that incorporate objective

NOTE Confidence: 0.8959720075

00:08:13.536 --> 00:08:15.522 measures of sleep deficiency and

NOTE Confidence: 0.8959720075

00:08:15.522 --> 00:08:17.586 then finally future directions.

NOTE Confidence: 0.842324949

00:08:19.710 --> 00:08:22.980 OK, so I realized I forgot to point this out,

NOTE Confidence: 0.842324949

00:08:22.980 --> 00:08:24.786 but this thing on the left here.  
NOTE Confidence: 0.842324949

00:08:24.790 --> 00:08:26.230 So this is sort of, you know,  
NOTE Confidence: 0.842324949

00:08:26.230 --> 00:08:27.990 This is why sleep is so great because,  
NOTE Confidence: 0.842324949

00:08:27.990 --> 00:08:29.890 you know it's everywhere, right?  
NOTE Confidence: 0.842324949

00:08:29.890 --> 00:08:31.850 So this picture was when I was  
NOTE Confidence: 0.842324949

00:08:31.850 --> 00:08:33.549 in Disney World with my kids.  
NOTE Confidence: 0.842324949

00:08:33.550 --> 00:08:34.756 I think we were waiting in  
NOTE Confidence: 0.842324949

00:08:34.756 --> 00:08:35.870 line to meet Mickey Mouse.  
NOTE Confidence: 0.842324949

00:08:35.870 --> 00:08:38.174 And you know, I snapped this picture of  
NOTE Confidence: 0.842324949

00:08:38.174 --> 00:08:40.116 this poster and an informative lecture  
NOTE Confidence: 0.842324949

00:08:40.116 --> 00:08:42.650 how to sleep presented by noted lecturer,  
NOTE Confidence: 0.842324949

00:08:42.650 --> 00:08:43.742 educator, and somnambulist.  
NOTE Confidence: 0.842324949

00:08:43.742 --> 00:08:46.290 Goofy. So I don't have to tell  
NOTE Confidence: 0.842324949

00:08:46.357 --> 00:08:48.427 you guys what somnambulist means,  
NOTE Confidence: 0.842324949

00:08:48.430 --> 00:08:49.274 but it says guaranteed.  
NOTE Confidence: 0.842324949

00:08:49.274 --> 00:08:50.790 By the time this lecture is over,

NOTE Confidence: 0.842324949

00:08:50.790 --> 00:08:52.918 you'll be fast asleep.

NOTE Confidence: 0.842324949

00:08:52.920 --> 00:08:54.306 So hopefully not,

NOTE Confidence: 0.842324949

00:08:54.306 --> 00:08:56.616 hopefully I will engage you.

NOTE Confidence: 0.842324949

00:08:56.620 --> 00:08:58.830 We don't necessarily have this

NOTE Confidence: 0.842324949

00:08:58.830 --> 00:09:00.900 conference at the, you know,

NOTE Confidence: 0.842324949

00:09:00.900 --> 00:09:02.380 the best circadian time,

NOTE Confidence: 0.842324949

00:09:02.380 --> 00:09:05.588 but I I will try to keep you

NOTE Confidence: 0.842324949

00:09:05.588 --> 00:09:07.885 entertained as best I can. OK.

NOTE Confidence: 0.842324949

00:09:07.885 --> 00:09:10.510 So that starts with the next story,

NOTE Confidence: 0.842324949

00:09:10.510 --> 00:09:11.678 which is the case.

NOTE Confidence: 0.842324949

00:09:11.678 --> 00:09:11.970 OK.

NOTE Confidence: 0.842324949

00:09:11.970 --> 00:09:14.861 So we're going to tell this story

NOTE Confidence: 0.842324949

00:09:14.861 --> 00:09:18.447 of MC who's a real patient that I

NOTE Confidence: 0.842324949

00:09:18.447 --> 00:09:21.160 saw in my geriatrics clinic and.

NOTE Confidence: 0.842324949

00:09:21.160 --> 00:09:22.280 I would say, you know,

NOTE Confidence: 0.842324949

00:09:22.280 --> 00:09:25.160 she didn't come to see me about sleep,  
NOTE Confidence: 0.842324949

00:09:25.160 --> 00:09:27.664 but her case is the sort of case  
NOTE Confidence: 0.842324949

00:09:27.664 --> 00:09:29.979 that I experience commonly.  
NOTE Confidence: 0.842324949

00:09:29.980 --> 00:09:31.639 So let me take you through this.  
NOTE Confidence: 0.842324949

00:09:31.640 --> 00:09:33.728 So she's a 79 year old woman who  
NOTE Confidence: 0.842324949

00:09:33.728 --> 00:09:35.393 presents for a medication review  
NOTE Confidence: 0.842324949

00:09:35.393 --> 00:09:36.833 after relocating from Florida  
NOTE Confidence: 0.842324949

00:09:36.833 --> 00:09:39.104 to live with her daughter in  
NOTE Confidence: 0.842324949

00:09:39.104 --> 00:09:40.612 Connecticut and she's accompanied  
NOTE Confidence: 0.842324949

00:09:40.612 --> 00:09:42.653 by her daughter at the visit.  
NOTE Confidence: 0.842324949

00:09:42.653 --> 00:09:44.459 And that's the nice thing about  
NOTE Confidence: 0.842324949

00:09:44.459 --> 00:09:46.632 seeing patients at our clinic is that  
NOTE Confidence: 0.842324949

00:09:46.632 --> 00:09:48.680 we almost always have family there  
NOTE Confidence: 0.842324949

00:09:48.680 --> 00:09:50.625 to provide some collateral report.  
NOTE Confidence: 0.842324949

00:09:50.630 --> 00:09:53.059 So she was widowed three years prior,  
NOTE Confidence: 0.842324949

00:09:53.060 --> 00:09:56.228 and since that time has had some decline.

NOTE Confidence: 0.842324949

00:09:56.230 --> 00:09:59.230 So recent episodes of confusion,

NOTE Confidence: 0.842324949

00:09:59.230 --> 00:10:01.150 poor appetite, delusional thoughts,

NOTE Confidence: 0.842324949

00:10:01.150 --> 00:10:02.950 and functional decline, decline.

NOTE Confidence: 0.842324949

00:10:02.950 --> 00:10:04.750 She's getting lost while driving.

NOTE Confidence: 0.842324949

00:10:04.750 --> 00:10:07.126 She's falling victim to financial scams.

NOTE Confidence: 0.842324949

00:10:07.130 --> 00:10:09.680 She's supposed to be responsible

NOTE Confidence: 0.842324949

00:10:09.680 --> 00:10:11.594 for giving herself her medications,

NOTE Confidence: 0.842324949

00:10:11.594 --> 00:10:13.349 but she's not refilling them,

NOTE Confidence: 0.842324949

00:10:13.350 --> 00:10:15.690 so probably not doing that appropriately.

NOTE Confidence: 0.842324949

00:10:15.690 --> 00:10:17.375 And she's depressed and socially

NOTE Confidence: 0.842324949

00:10:17.375 --> 00:10:18.723 isolated down in Florida,

NOTE Confidence: 0.842324949

00:10:18.730 --> 00:10:21.426 which is a big part of why she's

NOTE Confidence: 0.842324949

00:10:21.426 --> 00:10:23.180 moved to Connecticut.

NOTE Confidence: 0.842324949

00:10:23.180 --> 00:10:25.598 Other past medical history includes diabetes,

NOTE Confidence: 0.842324949

00:10:25.600 --> 00:10:26.302 hypertension,

NOTE Confidence: 0.842324949

00:10:26.302 --> 00:10:29.110 hypothyroidism and mild dementia.  
NOTE Confidence: 0.842324949

00:10:29.110 --> 00:10:30.850 And this is her medication list.  
NOTE Confidence: 0.842324949

00:10:30.850 --> 00:10:32.770 And as I told you, this is a real case.  
NOTE Confidence: 0.842324949

00:10:32.770 --> 00:10:34.070 I'm not making this up.  
NOTE Confidence: 0.842324949

00:10:34.070 --> 00:10:36.667 So you can see she's on some  
NOTE Confidence: 0.842324949

00:10:36.667 --> 00:10:37.409 cardiovascular medications,  
NOTE Confidence: 0.842324949

00:10:37.410 --> 00:10:40.049 but she's on a lot of psychoactive  
NOTE Confidence: 0.842324949

00:10:40.049 --> 00:10:42.230 medications, aripiprazole and antipsychotic,  
NOTE Confidence: 0.842324949

00:10:42.230 --> 00:10:44.030 bupropion and Buspirone.  
NOTE Confidence: 0.842324949

00:10:44.030 --> 00:10:46.110 Donepezil, which is, you know,  
NOTE Confidence: 0.842324949

00:10:46.110 --> 00:10:48.714 meant to increase the level of acetylcholine.  
NOTE Confidence: 0.842324949

00:10:48.720 --> 00:10:52.288 But she's also on Solifenacin or VESA care,  
NOTE Confidence: 0.842324949

00:10:52.290 --> 00:10:54.380 which blocks the sort of,  
NOTE Confidence: 0.842324949

00:10:54.380 --> 00:10:55.002 you know,  
NOTE Confidence: 0.842324949

00:10:55.002 --> 00:10:57.490 has has the opposite effect of the Donepezil.  
NOTE Confidence: 0.842324949

00:10:57.490 --> 00:11:00.550 And she's on duloxetine and sertraline.

NOTE Confidence: 0.842324949

00:11:00.550 --> 00:11:01.202 And also,

NOTE Confidence: 0.842324949

00:11:01.202 --> 00:11:03.158 we don't know how she's taking

NOTE Confidence: 0.842324949

00:11:03.158 --> 00:11:03.810 these medications.

NOTE Confidence: 0.887244325

00:11:06.520 --> 00:11:08.584 So I asked her about sleep

NOTE Confidence: 0.887244325

00:11:08.584 --> 00:11:10.920 because I always ask about sleep,

NOTE Confidence: 0.887244325

00:11:10.920 --> 00:11:13.416 especially since doing my sleep fellowship,

NOTE Confidence: 0.887244325

00:11:13.420 --> 00:11:15.317 and she says she sleeps pretty well.

NOTE Confidence: 0.887244325

00:11:15.320 --> 00:11:17.378 She feels refreshed during the day.

NOTE Confidence: 0.887244325

00:11:17.380 --> 00:11:19.494 She wants to increase her solifenacin her

NOTE Confidence: 0.887244325

00:11:19.494 --> 00:11:22.157 VESA care due to frequent urination at night,

NOTE Confidence: 0.887244325

00:11:22.160 --> 00:11:24.056 and she sleeps in a recliner.

NOTE Confidence: 0.887244325

00:11:24.060 --> 00:11:26.860 Her daughter tells us that she snores.

NOTE Confidence: 0.887244325

00:11:26.860 --> 00:11:30.433 Her sleep schedule is 10:30 PM to 8:00 AM.

NOTE Confidence: 0.887244325

00:11:30.440 --> 00:11:33.016 Her latency is quote not long awakenings

NOTE Confidence: 0.887244325

00:11:33.016 --> 00:11:35.668 3 to 4 \* a night for nocturia.

NOTE Confidence: 0.887244325

00:11:35.668 --> 00:11:38.205 But she goes back to sleep easily  
NOTE Confidence: 0.887244325

00:11:38.205 --> 00:11:40.837 and she says she naps probably about  
NOTE Confidence: 0.887244325

00:11:40.837 --> 00:11:43.257 two days a week for 30 minutes.  
NOTE Confidence: 0.887244325

00:11:43.260 --> 00:11:45.717 So again, because I'm a sleep doctor,  
NOTE Confidence: 0.887244325

00:11:45.720 --> 00:11:47.940 I also collected this information,  
NOTE Confidence: 0.887244325

00:11:47.940 --> 00:11:50.380 which is not common in her geriatrics clinic,  
NOTE Confidence: 0.887244325

00:11:50.380 --> 00:11:52.972 which is something that I do when I when  
NOTE Confidence: 0.887244325

00:11:52.972 --> 00:11:55.557 I'm concerned about a a sleep problem.  
NOTE Confidence: 0.887244325

00:11:55.560 --> 00:11:57.480 So I got the insomnia severity  
NOTE Confidence: 0.887244325

00:11:57.480 --> 00:11:58.760 index and the Epworth.  
NOTE Confidence: 0.887244325

00:11:58.760 --> 00:11:59.978 We're going to come back to these,  
NOTE Confidence: 0.887244325

00:11:59.980 --> 00:12:01.562 but suffice it to say, for now,  
NOTE Confidence: 0.887244325

00:12:01.562 --> 00:12:03.739 her scores for both of these were  
NOTE Confidence: 0.887244325

00:12:03.739 --> 00:12:05.777 very much in the normal range.  
NOTE Confidence: 0.887244325

00:12:05.780 --> 00:12:07.724 So then this is where I get a  
NOTE Confidence: 0.887244325

00:12:07.724 --> 00:12:09.080 little crowd participation.

NOTE Confidence: 0.887244325

00:12:09.080 --> 00:12:11.362 If possible I want to ask maybe

NOTE Confidence: 0.887244325

00:12:11.362 --> 00:12:14.143 if you all want to just like put a

NOTE Confidence: 0.887244325

00:12:14.143 --> 00:12:16.737 put a hand up in the on your video,

NOTE Confidence: 0.887244325

00:12:16.737 --> 00:12:19.739 would you get a sleep study for this patient?

NOTE Confidence: 0.8798594575

00:12:25.570 --> 00:12:28.250 I see, yes. I see a head shake.

NOTE Confidence: 0.8798594575

00:12:28.250 --> 00:12:31.170 Doctor Hilbert saying yes.

NOTE Confidence: 0.8798594575

00:12:31.170 --> 00:12:33.840 Doctor Thomas saying yes, OK.

NOTE Confidence: 0.9295909333333333

00:12:37.430 --> 00:12:41.490 All right, so. I did get a sleep

NOTE Confidence: 0.9295909333333333

00:12:41.490 --> 00:12:43.394 study and I think, you know,

NOTE Confidence: 0.9295909333333333

00:12:43.394 --> 00:12:46.046 when I'm presenting this sort of

NOTE Confidence: 0.9295909333333333

00:12:46.046 --> 00:12:49.138 case to a primary care audience,

NOTE Confidence: 0.9295909333333333

00:12:49.140 --> 00:12:51.709 they there's there's more sort of hesitance

NOTE Confidence: 0.9295909333333333

00:12:51.709 --> 00:12:53.977 about whether to get a sleep study.

NOTE Confidence: 0.9295909333333333

00:12:53.980 --> 00:12:55.980 But I did and I'm going to tell you why.

NOTE Confidence: 0.91381139

00:12:59.250 --> 00:13:02.558 So. First of all.

NOTE Confidence: 0.91381139

00:13:02.560 --> 00:13:04.945 The Solifenacin and also all  
NOTE Confidence: 0.91381139

00:13:04.945 --> 00:13:06.376 the psychoactive medications,  
NOTE Confidence: 0.91381139

00:13:06.380 --> 00:13:08.990 you know would make me concerned  
NOTE Confidence: 0.91381139

00:13:08.990 --> 00:13:11.162 potentially about some sort of  
NOTE Confidence: 0.91381139

00:13:11.162 --> 00:13:13.633 blunting of her awareness of of her,  
NOTE Confidence: 0.91381139

00:13:13.640 --> 00:13:16.136 whether she might be sleepy and or you  
NOTE Confidence: 0.91381139

00:13:16.136 --> 00:13:18.700 know how how she's actually sleeping.  
NOTE Confidence: 0.769597806666667

00:13:22.060 --> 00:13:23.980 So the daughter reported the snoring,  
NOTE Confidence: 0.769597806666667

00:13:23.980 --> 00:13:25.933 but the daughter also told us that  
NOTE Confidence: 0.769597806666667

00:13:25.933 --> 00:13:27.380 probably she was sleeping more  
NOTE Confidence: 0.769597806666667

00:13:27.380 --> 00:13:29.298 during the day than she let on.  
NOTE Confidence: 0.769597806666667

00:13:29.300 --> 00:13:31.230 Again, it's where that collateral  
NOTE Confidence: 0.769597806666667

00:13:31.230 --> 00:13:32.774 history becomes so important.  
NOTE Confidence: 0.769597806666667

00:13:32.780 --> 00:13:35.022 And I think that's not news to, you know,  
NOTE Confidence: 0.769597806666667

00:13:35.022 --> 00:13:36.978 to sleep audience like you guys.  
NOTE Confidence: 0.769597806666667

00:13:36.980 --> 00:13:38.996 Before COVID, at least we would have,

NOTE Confidence: 0.769597806666667  
00:13:39.000 --> 00:13:40.932 you know, the spouses coming in with  
NOTE Confidence: 0.769597806666667  
00:13:40.932 --> 00:13:42.754 the patients to tell us, Oh yeah,  
NOTE Confidence: 0.769597806666667  
00:13:42.754 --> 00:13:44.296 you know, he snores or whatever.  
NOTE Confidence: 0.769597806666667  
00:13:44.300 --> 00:13:46.799 So we're very used to getting collateral  
NOTE Confidence: 0.769597806666667  
00:13:46.799 --> 00:13:49.630 history and we do the same in geriatrics.  
NOTE Confidence: 0.769597806666667  
00:13:49.630 --> 00:13:51.148 Bedtime is long,  
NOTE Confidence: 0.769597806666667  
00:13:51.148 --> 00:13:54.184 so she's sleeping 9 1/2 hours.  
NOTE Confidence: 0.769597806666667  
00:13:54.190 --> 00:13:55.698 The Nocturia is probably,  
NOTE Confidence: 0.769597806666667  
00:13:55.698 --> 00:13:59.194 to a lot of you, a signal that she  
NOTE Confidence: 0.769597806666667  
00:13:59.194 --> 00:14:01.199 might have untreated sleep apnea.  
NOTE Confidence: 0.769597806666667  
00:14:01.200 --> 00:14:03.615 And so here's her home sleep study.  
NOTE Confidence: 0.769597806666667  
00:14:03.620 --> 00:14:05.028 And lo and behold,  
NOTE Confidence: 0.769597806666667  
00:14:05.028 --> 00:14:07.140 she does have severe sleep apnea.  
NOTE Confidence: 0.769597806666667  
00:14:07.140 --> 00:14:09.348 So you can see a lot of apneas.  
NOTE Confidence: 0.769597806666667  
00:14:09.350 --> 00:14:10.659 You can see a lot of depth,  
NOTE Confidence: 0.769597806666667

00:14:10.660 --> 00:14:13.936 two sort of dense periods of desaturation.  
NOTE Confidence: 0.769597806666667

00:14:13.940 --> 00:14:15.320 Here's the close-up.  
NOTE Confidence: 0.769597806666667

00:14:15.320 --> 00:14:16.240 So basically,  
NOTE Confidence: 0.769597806666667

00:14:16.240 --> 00:14:18.412 this is, you know,  
NOTE Confidence: 0.769597806666667

00:14:18.412 --> 00:14:21.127 pretty classic severe sleep apnea.  
NOTE Confidence: 0.769597806666667

00:14:21.130 --> 00:14:23.594 So if we have these patients who come  
NOTE Confidence: 0.769597806666667

00:14:23.594 --> 00:14:26.131 in and tell us their sleep is fine  
NOTE Confidence: 0.769597806666667

00:14:26.131 --> 00:14:28.697 and then we find the sort of rippling  
NOTE Confidence: 0.769597806666667

00:14:28.697 --> 00:14:31.166 sleep apnea on on a home sleep test,  
NOTE Confidence: 0.769597806666667

00:14:31.166 --> 00:14:32.606 it really does sort of  
NOTE Confidence: 0.769597806666667

00:14:32.606 --> 00:14:34.430 lead us to this question,  
NOTE Confidence: 0.769597806666667

00:14:34.430 --> 00:14:36.635 how are we actually supposed to evaluate  
NOTE Confidence: 0.769597806666667

00:14:36.635 --> 00:14:38.669 and screen people for sleep problems?  
NOTE Confidence: 0.769597806666667

00:14:38.670 --> 00:14:40.420 So what is the best way to  
NOTE Confidence: 0.769597806666667

00:14:40.420 --> 00:14:42.009 assess sleep in older adults?  
NOTE Confidence: 0.769597806666667

00:14:42.010 --> 00:14:44.348 And so that's really been the focus

NOTE Confidence: 0.769597806666667  
00:14:44.348 --> 00:14:46.759 of the research that I've been doing  
NOTE Confidence: 0.769597806666667  
00:14:46.759 --> 00:14:49.230 so far is thinking about those tools.  
NOTE Confidence: 0.769597806666667  
00:14:49.230 --> 00:14:50.840 And so before I get to that,  
NOTE Confidence: 0.769597806666667  
00:14:50.840 --> 00:14:53.224 I'm going to just run through and again,  
NOTE Confidence: 0.769597806666667  
00:14:53.230 --> 00:14:54.766 we won't spend a lot of time on  
NOTE Confidence: 0.769597806666667  
00:14:54.766 --> 00:14:55.831 this because I think this is  
NOTE Confidence: 0.769597806666667  
00:14:55.831 --> 00:14:57.000 not news to a lot of you,  
NOTE Confidence: 0.769597806666667  
00:14:57.000 --> 00:14:59.364 but let's talk about what's unique  
NOTE Confidence: 0.769597806666667  
00:14:59.364 --> 00:15:01.520 about sleep in older people.  
NOTE Confidence: 0.769597806666667  
00:15:01.520 --> 00:15:03.902 So these are the National Sleep  
NOTE Confidence: 0.769597806666667  
00:15:03.902 --> 00:15:04.696 Foundation recommendations.  
NOTE Confidence: 0.769597806666667  
00:15:04.700 --> 00:15:08.900 And so you can see that people 65 and older,  
NOTE Confidence: 0.769597806666667  
00:15:08.900 --> 00:15:11.510 the sort of sweet spot is 7 to 8 hours.  
NOTE Confidence: 0.769597806666667  
00:15:11.510 --> 00:15:14.150 Recognizing that five hours on one end of  
NOTE Confidence: 0.769597806666667  
00:15:14.150 --> 00:15:17.039 nine hours on the other might be appropriate.  
NOTE Confidence: 0.769597806666667

00:15:17.040 --> 00:15:18.912 The seven to 8 hour recommendation  
NOTE Confidence: 0.769597806666667

00:15:18.912 --> 00:15:20.839 really comes from the fact that  
NOTE Confidence: 0.769597806666667

00:15:20.839 --> 00:15:22.681 people who sleep that duration tend  
NOTE Confidence: 0.769597806666667

00:15:22.681 --> 00:15:24.639 to report better physical health,  
NOTE Confidence: 0.769597806666667

00:15:24.640 --> 00:15:26.068 better mental health,  
NOTE Confidence: 0.769597806666667

00:15:26.068 --> 00:15:28.448 and better quality of life.  
NOTE Confidence: 0.769597806666667

00:15:28.450 --> 00:15:30.590 I used to use this as a way to say,  
NOTE Confidence: 0.769597806666667

00:15:30.590 --> 00:15:31.472 to tell people,  
NOTE Confidence: 0.769597806666667

00:15:31.472 --> 00:15:31.766 alright,  
NOTE Confidence: 0.769597806666667

00:15:31.766 --> 00:15:33.802 you shouldn't come in and say, oh,  
NOTE Confidence: 0.769597806666667

00:15:33.802 --> 00:15:36.250 I'm older so I don't need as much sleep.  
NOTE Confidence: 0.769597806666667

00:15:36.250 --> 00:15:39.130 And so I think it's that helpful in that way.  
NOTE Confidence: 0.769597806666667

00:15:39.130 --> 00:15:41.130 But I do think it is a problem  
NOTE Confidence: 0.769597806666667

00:15:41.130 --> 00:15:42.849 to say anywhere between 5:00  
NOTE Confidence: 0.769597806666667

00:15:42.849 --> 00:15:45.147 and 9:00 hours may be normal.  
NOTE Confidence: 0.769597806666667

00:15:45.150 --> 00:15:46.450 And you know, I have,

NOTE Confidence: 0.769597806666667  
00:15:46.450 --> 00:15:48.556 I had a patient recently who  
NOTE Confidence: 0.769597806666667  
00:15:48.556 --> 00:15:50.510 said I sleep six hours.  
NOTE Confidence: 0.769597806666667  
00:15:50.510 --> 00:15:52.976 I feel OK during the day.  
NOTE Confidence: 0.769597806666667  
00:15:52.980 --> 00:15:55.136 How do I know if that's enough?  
NOTE Confidence: 0.769597806666667  
00:15:55.140 --> 00:15:55.890 And I said,  
NOTE Confidence: 0.769597806666667  
00:15:55.890 --> 00:15:56.140 well,  
NOTE Confidence: 0.769597806666667  
00:15:56.140 --> 00:15:57.640 well isn't that the \$1,000,000 question,  
NOTE Confidence: 0.769597806666667  
00:15:57.640 --> 00:15:59.458 but I am getting a bit ahead of myself.  
NOTE Confidence: 0.769597806666667  
00:15:59.460 --> 00:16:02.884 So for for for all intents and purposes,  
NOTE Confidence: 0.769597806666667  
00:16:02.890 --> 00:16:04.696 this is sort of the recommendation  
NOTE Confidence: 0.769597806666667  
00:16:04.696 --> 00:16:05.900 of a normal duration  
NOTE Confidence: 0.910506496923077  
00:16:05.962 --> 00:16:06.838 in older people.  
NOTE Confidence: 0.8911859725  
00:16:09.990 --> 00:16:12.552 You all are also aware that sleep  
NOTE Confidence: 0.8911859725  
00:16:12.552 --> 00:16:14.170 architecture changes as we age.  
NOTE Confidence: 0.8911859725  
00:16:14.170 --> 00:16:15.892 And so whereas someone my daughter's  
NOTE Confidence: 0.8911859725

00:16:15.892 --> 00:16:17.844 age will spend a lot of time  
NOTE Confidence: 0.8911859725

00:16:17.844 --> 00:16:19.326 in R.E.M and slow wave sleep,  
NOTE Confidence: 0.8911859725

00:16:19.330 --> 00:16:21.160 older adults will spend less  
NOTE Confidence: 0.8911859725

00:16:21.160 --> 00:16:23.490 time in those stages of sleep,  
NOTE Confidence: 0.8911859725

00:16:23.490 --> 00:16:26.108 more time in lighter stages of sleep.  
NOTE Confidence: 0.8911859725

00:16:26.110 --> 00:16:27.808 And as a result, you know,  
NOTE Confidence: 0.8911859725

00:16:27.810 --> 00:16:29.616 a younger adult might have this  
NOTE Confidence: 0.8911859725

00:16:29.616 --> 00:16:31.177 sleep histogram that shows this  
NOTE Confidence: 0.8911859725

00:16:31.177 --> 00:16:32.657 nice sort of cycling through  
NOTE Confidence: 0.8911859725

00:16:32.657 --> 00:16:34.190 lighter and then deeper stages  
NOTE Confidence: 0.8911859725

00:16:34.190 --> 00:16:35.930 of sleep and these R.E.M cycles,  
NOTE Confidence: 0.8911859725

00:16:35.930 --> 00:16:37.410 whereas an older adult will  
NOTE Confidence: 0.8911859725

00:16:37.410 --> 00:16:38.594 look more like this.  
NOTE Confidence: 0.8911859725

00:16:38.600 --> 00:16:41.762 A shift towards lighter stages of  
NOTE Confidence: 0.8911859725

00:16:41.762 --> 00:16:44.979 sleep and more arousals from sleep.  
NOTE Confidence: 0.8911859725

00:16:44.980 --> 00:16:46.840 Some other things that change.

NOTE Confidence: 0.8911859725  
00:16:46.840 --> 00:16:50.056 So circadian rhythm changes with age.  
NOTE Confidence: 0.8911859725  
00:16:50.060 --> 00:16:52.418 Phase advance becomes much more common,  
NOTE Confidence: 0.8911859725  
00:16:52.420 --> 00:16:54.205 meaning that people may go to bed  
NOTE Confidence: 0.8911859725  
00:16:54.205 --> 00:16:55.719 earlier and therefore get up earlier,  
NOTE Confidence: 0.8911859725  
00:16:55.720 --> 00:16:57.316 and that's really a result of  
NOTE Confidence: 0.8911859725  
00:16:57.316 --> 00:16:58.990 an earlier peak in melatonin.  
NOTE Confidence: 0.836266121111111  
00:17:02.590 --> 00:17:03.922 There's a decreased amplitude  
NOTE Confidence: 0.836266121111111  
00:17:03.922 --> 00:17:05.587 of the sleep wake rhythm,  
NOTE Confidence: 0.836266121111111  
00:17:05.590 --> 00:17:06.535 of body temperature,  
NOTE Confidence: 0.836266121111111  
00:17:06.535 --> 00:17:08.110 and of many different hormones.  
NOTE Confidence: 0.836266121111111  
00:17:08.110 --> 00:17:10.096 So it's a decrease in the  
NOTE Confidence: 0.836266121111111  
00:17:10.096 --> 00:17:11.821 difference between the peak and  
NOTE Confidence: 0.836266121111111  
00:17:11.821 --> 00:17:13.486 the through of those things,  
NOTE Confidence: 0.836266121111111  
00:17:13.490 --> 00:17:15.848 and also a loss of ability  
NOTE Confidence: 0.836266121111111  
00:17:15.848 --> 00:17:18.140 to phase shift as we age.  
NOTE Confidence: 0.912474490833333

00:17:20.390 --> 00:17:22.712 And so, you know, obstructive sleep  
NOTE Confidence: 0.912474490833333

00:17:22.712 --> 00:17:25.370 apnea isn't the only sleep disorder,  
NOTE Confidence: 0.912474490833333

00:17:25.370 --> 00:17:26.970 but a very common one.  
NOTE Confidence: 0.912474490833333

00:17:26.970 --> 00:17:28.165 And I think it's important  
NOTE Confidence: 0.912474490833333

00:17:28.165 --> 00:17:29.646 just to highlight a couple ways  
NOTE Confidence: 0.912474490833333

00:17:29.646 --> 00:17:30.846 in which this is different.  
NOTE Confidence: 0.912474490833333

00:17:30.850 --> 00:17:34.150 In older people, it presents differently.  
NOTE Confidence: 0.912474490833333

00:17:34.150 --> 00:17:36.622 So first of all, the prevalence  
NOTE Confidence: 0.912474490833333

00:17:36.622 --> 00:17:39.009 of sleep apnea increases with age,  
NOTE Confidence: 0.912474490833333

00:17:39.010 --> 00:17:40.738 and it's frequently undiagnosed,  
NOTE Confidence: 0.912474490833333

00:17:40.738 --> 00:17:42.898 and that's because of this  
NOTE Confidence: 0.912474490833333

00:17:42.898 --> 00:17:44.210 different presentation.  
NOTE Confidence: 0.912474490833333

00:17:44.210 --> 00:17:46.930 So as opposed to a younger age group,  
NOTE Confidence: 0.912474490833333

00:17:46.930 --> 00:17:49.107 there's an equal ratio of males to  
NOTE Confidence: 0.912474490833333

00:17:49.107 --> 00:17:51.044 females when you start to diagnose  
NOTE Confidence: 0.912474490833333

00:17:51.044 --> 00:17:52.916 sleep apnea in an older age.

NOTE Confidence: 0.912474490833333  
00:17:52.920 --> 00:17:54.924 Obesity is a less important predictor  
NOTE Confidence: 0.912474490833333  
00:17:54.924 --> 00:17:57.382 of sleep apnea in this group and  
NOTE Confidence: 0.912474490833333  
00:17:57.382 --> 00:17:59.142 there's less reporting of snoring  
NOTE Confidence: 0.912474490833333  
00:17:59.142 --> 00:18:01.426 or pauses and breathing and more  
NOTE Confidence: 0.912474490833333  
00:18:01.426 --> 00:18:03.316 sort of sleep related complaints,  
NOTE Confidence: 0.912474490833333  
00:18:03.320 --> 00:18:03.655 insomnia,  
NOTE Confidence: 0.912474490833333  
00:18:03.655 --> 00:18:05.665 daytime sleepiness and then that that  
NOTE Confidence: 0.912474490833333  
00:18:05.665 --> 00:18:08.348 one that I alluded to before that I  
NOTE Confidence: 0.912474490833333  
00:18:08.348 --> 00:18:10.549 think is so important urination at night.  
NOTE Confidence: 0.907589835714286  
00:18:13.170 --> 00:18:15.874 And so this is another way that sleep  
NOTE Confidence: 0.907589835714286  
00:18:15.874 --> 00:18:18.347 is really different in this group.  
NOTE Confidence: 0.907589835714286  
00:18:18.350 --> 00:18:21.269 It's because there are all of these  
NOTE Confidence: 0.907589835714286  
00:18:21.269 --> 00:18:23.250 things impacting their sleeping.  
NOTE Confidence: 0.907589835714286  
00:18:23.250 --> 00:18:25.410 And so, as I like to say in a  
NOTE Confidence: 0.907589835714286  
00:18:25.410 --> 00:18:27.803 geriatric audience, sleep problems in  
NOTE Confidence: 0.907589835714286

00:18:27.803 --> 00:18:29.847 this population are multifactorial.  
NOTE Confidence: 0.907589835714286

00:18:29.850 --> 00:18:31.954 I've already mentioned the  
NOTE Confidence: 0.907589835714286

00:18:31.954 --> 00:18:34.058 changes in sleep architecture.  
NOTE Confidence: 0.907589835714286

00:18:34.060 --> 00:18:35.836 The other thing is that as we age,  
NOTE Confidence: 0.907589835714286

00:18:35.840 --> 00:18:37.886 we collect conditions and those can  
NOTE Confidence: 0.907589835714286

00:18:37.886 --> 00:18:40.278 affect sleep in a number of ways.  
NOTE Confidence: 0.907589835714286

00:18:40.280 --> 00:18:42.954 They can be associated with sleep disorders.  
NOTE Confidence: 0.907589835714286

00:18:42.960 --> 00:18:44.952 They could be associated with low  
NOTE Confidence: 0.907589835714286

00:18:44.952 --> 00:18:46.280 levels of chronic inflammation.  
NOTE Confidence: 0.907589835714286

00:18:46.280 --> 00:18:48.776 So, so they could have direct  
NOTE Confidence: 0.907589835714286

00:18:48.776 --> 00:18:51.000 or indirect impacts on sleep.  
NOTE Confidence: 0.907589835714286

00:18:51.000 --> 00:18:52.552 And then of course,  
NOTE Confidence: 0.907589835714286

00:18:52.552 --> 00:18:54.880 with those conditions come the polypharmacy.  
NOTE Confidence: 0.907589835714286

00:18:54.880 --> 00:18:57.288 And there are a lot of ways that  
NOTE Confidence: 0.907589835714286

00:18:57.288 --> 00:18:58.770 medications can affect sleep.  
NOTE Confidence: 0.907589835714286

00:18:58.770 --> 00:19:00.813 And I can tell you that as a geriatrician,

NOTE Confidence: 0.907589835714286  
00:19:00.820 --> 00:19:02.953 when I have a patient with a sleep problem,  
NOTE Confidence: 0.907589835714286  
00:19:02.960 --> 00:19:04.220 one of the first things I'm doing  
NOTE Confidence: 0.907589835714286  
00:19:04.220 --> 00:19:05.826 is going to the medication. Yes.  
NOTE Confidence: 0.907589835714286  
00:19:05.826 --> 00:19:07.906 But there are also psychosocial  
NOTE Confidence: 0.907589835714286  
00:19:07.906 --> 00:19:08.738 behavioral factors.  
NOTE Confidence: 0.907589835714286  
00:19:08.740 --> 00:19:10.604 You know, maybe caregiving,  
NOTE Confidence: 0.907589835714286  
00:19:10.604 --> 00:19:13.148 substance use, bereavement that can,  
NOTE Confidence: 0.907589835714286  
00:19:13.148 --> 00:19:14.756 or social isolation,  
NOTE Confidence: 0.907589835714286  
00:19:14.760 --> 00:19:16.920 loneliness that could affect sleep,  
NOTE Confidence: 0.907589835714286  
00:19:16.920 --> 00:19:18.660 and then finally sleep disorders.  
NOTE Confidence: 0.907589835714286  
00:19:18.660 --> 00:19:20.568 Because nearly every one of these  
NOTE Confidence: 0.907589835714286  
00:19:20.568 --> 00:19:22.626 that we treat every day becomes  
NOTE Confidence: 0.907589835714286  
00:19:22.626 --> 00:19:24.066 more prevalent with age.  
NOTE Confidence: 0.912833137  
00:19:26.510 --> 00:19:28.810 So now that I've told you a little bit here,  
NOTE Confidence: 0.912833137  
00:19:28.810 --> 00:19:30.540 just sort of reminded you  
NOTE Confidence: 0.912833137

00:19:30.540 --> 00:19:31.924 about these unique aspects,  
NOTE Confidence: 0.912833137

00:19:31.930 --> 00:19:34.506 I want to talk about sleep deficiency,  
NOTE Confidence: 0.912833137

00:19:34.510 --> 00:19:37.070 what it is, and some of the work that I've  
NOTE Confidence: 0.912833137

00:19:37.136 --> 00:19:39.696 been doing to define this in older people.  
NOTE Confidence: 0.912833137

00:19:39.700 --> 00:19:42.633 So this is a definition from the  
NOTE Confidence: 0.912833137

00:19:42.633 --> 00:19:44.510 National Institutes of Health.  
NOTE Confidence: 0.912833137

00:19:44.510 --> 00:19:46.838 Sleep deficiency is a condition that  
NOTE Confidence: 0.912833137

00:19:46.838 --> 00:19:49.450 occurs due to poor sleep quality.  
NOTE Confidence: 0.912833137

00:19:49.450 --> 00:19:52.732 For example, a sleep disorder like  
NOTE Confidence: 0.912833137

00:19:52.732 --> 00:19:54.920 sleep apnea insufficient sleep.  
NOTE Confidence: 0.912833137

00:19:54.920 --> 00:19:56.184 Or inappropriate sleep timing,  
NOTE Confidence: 0.912833137

00:19:56.184 --> 00:19:58.956 which is to say sleep that is out of  
NOTE Confidence: 0.912833137

00:19:58.956 --> 00:20:00.860 sync with the body is circadian rhythm,  
NOTE Confidence: 0.912833137

00:20:00.860 --> 00:20:03.352 and that an impairment in one or  
NOTE Confidence: 0.912833137

00:20:03.352 --> 00:20:06.472 more of these domains leads to an  
NOTE Confidence: 0.912833137

00:20:06.472 --> 00:20:08.444 impairment in daytime function.

NOTE Confidence: 0.912833137

00:20:08.450 --> 00:20:10.786 So this I think is a really appealing

NOTE Confidence: 0.912833137

00:20:10.786 --> 00:20:13.365 way to study sleep and older people

NOTE Confidence: 0.912833137

00:20:13.365 --> 00:20:15.560 because it really is pointing to.

NOTE Confidence: 0.912833137

00:20:15.560 --> 00:20:17.340 These different domains in which

NOTE Confidence: 0.912833137

00:20:17.340 --> 00:20:19.120 the apparent impairments may arise,

NOTE Confidence: 0.912833137

00:20:19.120 --> 00:20:21.374 and it's looking at sleep from a

NOTE Confidence: 0.912833137

00:20:21.374 --> 00:20:22.717 more global perspective instead

NOTE Confidence: 0.912833137

00:20:22.717 --> 00:20:24.297 of focusing on one thing,

NOTE Confidence: 0.912833137

00:20:24.300 --> 00:20:26.284 it's really more comprehensive,

NOTE Confidence: 0.912833137

00:20:26.284 --> 00:20:28.764 which is important because these

NOTE Confidence: 0.912833137

00:20:28.764 --> 00:20:31.186 people tend to have multiple

NOTE Confidence: 0.912833137

00:20:31.186 --> 00:20:33.038 things going on simultaneously.

NOTE Confidence: 0.912833137

00:20:33.040 --> 00:20:36.134 And so I'll talk now a little

NOTE Confidence: 0.912833137

00:20:36.134 --> 00:20:38.838 bit of about some of the.

NOTE Confidence: 0.912833137

00:20:38.840 --> 00:20:41.470 The work using self reported

NOTE Confidence: 0.912833137

00:20:41.470 --> 00:20:44.100 measures and specifically looking at  
NOTE Confidence: 0.912833137

00:20:44.182 --> 00:20:46.852 insomnia and hypersomnia or daytime  
NOTE Confidence: 0.912833137

00:20:46.852 --> 00:20:49.937 sleepiness and in older adults and  
NOTE Confidence: 0.912833137

00:20:49.937 --> 00:20:52.593 so this is work that I did using.  
NOTE Confidence: 0.912833137

00:20:52.600 --> 00:20:54.312 Previously collected data from  
NOTE Confidence: 0.912833137

00:20:54.312 --> 00:20:56.024 the precipitating events project.  
NOTE Confidence: 0.912833137

00:20:56.030 --> 00:20:58.645 This is a community dwelling  
NOTE Confidence: 0.912833137

00:20:58.645 --> 00:21:00.737 cohort in New Haven.  
NOTE Confidence: 0.912833137

00:21:00.740 --> 00:21:02.903 People were at least 70 at the  
NOTE Confidence: 0.912833137

00:21:02.903 --> 00:21:05.138 time that they entered the study.  
NOTE Confidence: 0.912833137

00:21:05.140 --> 00:21:07.338 And every 18 months they have these  
NOTE Confidence: 0.912833137

00:21:07.338 --> 00:21:09.040 very detailed home assessments.  
NOTE Confidence: 0.912833137

00:21:09.040 --> 00:21:11.938 We get things like medical conditions,  
NOTE Confidence: 0.912833137

00:21:11.940 --> 00:21:13.388 medication use,  
NOTE Confidence: 0.912833137

00:21:13.388 --> 00:21:15.560 cognitive function, depression,  
NOTE Confidence: 0.912833137

00:21:15.560 --> 00:21:18.060 so very detailed measures

NOTE Confidence: 0.912833137

00:21:18.060 --> 00:21:20.560 in these older people.

NOTE Confidence: 0.912833137

00:21:20.560 --> 00:21:24.232 And about six or seven years into the study,

NOTE Confidence: 0.912833137

00:21:24.240 --> 00:21:25.520 they started to collect

NOTE Confidence: 0.912833137

00:21:25.520 --> 00:21:26.480 different sleep measures,

NOTE Confidence: 0.912833137

00:21:26.480 --> 00:21:28.508 including the Epworth and the ISIL.

NOTE Confidence: 0.912833137

00:21:28.510 --> 00:21:30.659 And so that's some of the data.

NOTE Confidence: 0.912833137

00:21:30.660 --> 00:21:33.145 What I'm going to present to you.

NOTE Confidence: 0.912833137

00:21:33.150 --> 00:21:35.590 And so our hypothesis was that when we

NOTE Confidence: 0.912833137

00:21:35.590 --> 00:21:38.237 looked at these measures and we looked

NOTE Confidence: 0.912833137

00:21:38.237 --> 00:21:40.207 at these symptoms of hypersomnia,

NOTE Confidence: 0.912833137

00:21:40.210 --> 00:21:41.858 insomnia that they would

NOTE Confidence: 0.912833137

00:21:41.858 --> 00:21:43.506 be prevalent and severe.

NOTE Confidence: 0.912833137

00:21:43.510 --> 00:21:45.198 And the reason is because of all of

NOTE Confidence: 0.912833137

00:21:45.198 --> 00:21:46.909 the things that I previously told you,

NOTE Confidence: 0.912833137

00:21:46.910 --> 00:21:47.255 right.

NOTE Confidence: 0.912833137

00:21:47.255 --> 00:21:49.670 They have they have more medical conditions,  
NOTE Confidence: 0.912833137

00:21:49.670 --> 00:21:52.148 more medications and and and all  
NOTE Confidence: 0.912833137

00:21:52.148 --> 00:21:54.929 of these things sort of convening  
NOTE Confidence: 0.912833137

00:21:54.929 --> 00:21:57.544 to potentially impact their sleep.  
NOTE Confidence: 0.912833137

00:21:57.550 --> 00:21:59.760 So here is the cohort,  
NOTE Confidence: 0.912833137

00:21:59.760 --> 00:22:01.566 just to get give you a sense  
NOTE Confidence: 0.912833137

00:22:01.566 --> 00:22:03.160 of what they looked like.  
NOTE Confidence: 0.912833137

00:22:03.160 --> 00:22:04.980 So you can see on average the  
NOTE Confidence: 0.912833137

00:22:04.980 --> 00:22:07.155 age was 84 at the time that  
NOTE Confidence: 0.912833137

00:22:07.155 --> 00:22:08.815 we were studying their sleep.  
NOTE Confidence: 0.912833137

00:22:08.820 --> 00:22:10.780 They have a lot of medical problems,  
NOTE Confidence: 0.912833137

00:22:10.780 --> 00:22:12.328 they have obesity,  
NOTE Confidence: 0.912833137

00:22:12.328 --> 00:22:14.168 cardiovascular disease, lung disease.  
NOTE Confidence: 0.912833137

00:22:14.168 --> 00:22:14.976 They have.  
NOTE Confidence: 0.912833137

00:22:14.976 --> 00:22:18.498 They use a lot of medications, on average 9.  
NOTE Confidence: 0.912833137

00:22:18.498 --> 00:22:20.694 And there's a lot of depression,

NOTE Confidence: 0.912833137  
00:22:20.700 --> 00:22:22.440 cognitive impairment and low  
NOTE Confidence: 0.912833137  
00:22:22.440 --> 00:22:24.180 physical activity in this,  
NOTE Confidence: 0.912833137  
00:22:24.180 --> 00:22:25.128 in this cohort.  
NOTE Confidence: 0.872675315333333  
00:22:27.700 --> 00:22:28.820 So here's the Epworth,  
NOTE Confidence: 0.872675315333333  
00:22:28.820 --> 00:22:30.500 which probably doesn't need a lot  
NOTE Confidence: 0.872675315333333  
00:22:30.550 --> 00:22:32.000 of description in this group,  
NOTE Confidence: 0.872675315333333  
00:22:32.000 --> 00:22:34.097 but I just want to remind you all this,  
NOTE Confidence: 0.872675315333333  
00:22:34.100 --> 00:22:36.436 the range is zero to four and really  
NOTE Confidence: 0.872675315333333  
00:22:36.436 --> 00:22:37.896 we think clinically significant  
NOTE Confidence: 0.872675315333333  
00:22:37.896 --> 00:22:40.717 hypersomnia is 10 and above and that  
NOTE Confidence: 0.872675315333333  
00:22:40.717 --> 00:22:43.194 10 to 15 is sort of more moderate,  
NOTE Confidence: 0.872675315333333  
00:22:43.200 --> 00:22:46.098 whereas 16 and above is severe.  
NOTE Confidence: 0.872675315333333  
00:22:46.100 --> 00:22:47.822 And so here's what we found  
NOTE Confidence: 0.872675315333333  
00:22:47.822 --> 00:22:48.970 in the pep cohort.  
NOTE Confidence: 0.872675315333333  
00:22:48.970 --> 00:22:50.980 So the median Epworth score  
NOTE Confidence: 0.872675315333333

00:22:50.980 --> 00:22:52.990 in this cohort was six,  
NOTE Confidence: 0.872675315333333

00:22:52.990 --> 00:22:55.854 so very much in the normal range and  
NOTE Confidence: 0.872675315333333

00:22:55.854 --> 00:22:58.438 those people that cut off of 10 and  
NOTE Confidence: 0.872675315333333

00:22:58.438 --> 00:23:00.988 above it was about 23% of the cohort.  
NOTE Confidence: 0.872675315333333

00:23:00.988 --> 00:23:03.948 So you know very common, but also.  
NOTE Confidence: 0.872675315333333

00:23:03.948 --> 00:23:05.850 Pretty mild overall,  
NOTE Confidence: 0.872675315333333

00:23:05.850 --> 00:23:08.670 most of those people are falling  
NOTE Confidence: 0.872675315333333

00:23:08.670 --> 00:23:10.550 into that mild category.  
NOTE Confidence: 0.872675315333333

00:23:10.550 --> 00:23:11.966 And when we looked at insomnia,  
NOTE Confidence: 0.872675315333333

00:23:11.970 --> 00:23:15.486 so just remind you that I, I how it works.  
NOTE Confidence: 0.872675315333333

00:23:15.486 --> 00:23:18.307 So we have the insomnia symptoms and then  
NOTE Confidence: 0.872675315333333

00:23:18.307 --> 00:23:20.904 the sort of DSM criteria about whether,  
NOTE Confidence: 0.872675315333333

00:23:20.910 --> 00:23:22.495 you know people are worried  
NOTE Confidence: 0.872675315333333

00:23:22.495 --> 00:23:23.446 about their sleep,  
NOTE Confidence: 0.872675315333333

00:23:23.450 --> 00:23:25.060 about whether they think it  
NOTE Confidence: 0.872675315333333

00:23:25.060 --> 00:23:26.026 interferes with activities.

NOTE Confidence: 0.872675315333333  
00:23:26.030 --> 00:23:28.067 So this range is 0 to 28.  
NOTE Confidence: 0.872675315333333  
00:23:28.070 --> 00:23:31.030 The threshold is really 8 and above and  
NOTE Confidence: 0.872675315333333  
00:23:31.030 --> 00:23:34.045 then mild is 8 to 14 moderate insomnia,  
NOTE Confidence: 0.872675315333333  
00:23:34.050 --> 00:23:37.830 15 to 21 in severe is 22 to 28.  
NOTE Confidence: 0.872675315333333  
00:23:37.830 --> 00:23:41.394 So here's what we saw in this cohort with  
NOTE Confidence: 0.872675315333333  
00:23:41.394 --> 00:23:44.378 respect to the Insomnia Severity index.  
NOTE Confidence: 0.872675315333333  
00:23:44.380 --> 00:23:46.620 So if we use that sort of cut off of  
NOTE Confidence: 0.872675315333333  
00:23:46.685 --> 00:23:49.720 eight and above to to establish insomnia,  
NOTE Confidence: 0.872675315333333  
00:23:49.720 --> 00:23:52.720 that was in 43% of the cohort.  
NOTE Confidence: 0.872675315333333  
00:23:52.720 --> 00:23:54.850 But again they they the severity  
NOTE Confidence: 0.872675315333333  
00:23:54.925 --> 00:23:56.038 was pretty mild.  
NOTE Confidence: 0.872675315333333  
00:23:56.040 --> 00:23:58.250 So among those people with  
NOTE Confidence: 0.872675315333333  
00:23:58.250 --> 00:24:00.018 an abnormal ISIS score,  
NOTE Confidence: 0.872675315333333  
00:24:00.020 --> 00:24:01.760 the mean ISIS score was 12,  
NOTE Confidence: 0.872675315333333  
00:24:01.760 --> 00:24:04.710 so in that mild range.  
NOTE Confidence: 0.872675315333333

00:24:04.710 --> 00:24:06.228 And we also looked at what  
NOTE Confidence: 0.872675315333333

00:24:06.228 --> 00:24:07.849 happened to the ISI over time.  
NOTE Confidence: 0.872675315333333

00:24:07.850 --> 00:24:09.985 And so here I'm comparing the three  
NOTE Confidence: 0.872675315333333

00:24:09.985 --> 00:24:11.890 different age groups we have in black,  
NOTE Confidence: 0.872675315333333

00:24:11.890 --> 00:24:12.877 our youngest olds,  
NOTE Confidence: 0.872675315333333

00:24:12.877 --> 00:24:15.180 in red the oldest old or the  
NOTE Confidence: 0.872675315333333

00:24:15.250 --> 00:24:17.700 middle old and blue the oldest old.  
NOTE Confidence: 0.872675315333333

00:24:17.700 --> 00:24:19.278 And you can see these ISIL,  
NOTE Confidence: 0.872675315333333

00:24:19.280 --> 00:24:21.800 the mean ISIS scores over time  
NOTE Confidence: 0.872675315333333

00:24:21.800 --> 00:24:24.099 are really overlapping and they're  
NOTE Confidence: 0.872675315333333

00:24:24.099 --> 00:24:26.279 falling below that threshold.  
NOTE Confidence: 0.872675315333333

00:24:26.280 --> 00:24:30.124 And so I would say that, you know,  
NOTE Confidence: 0.872675315333333

00:24:30.124 --> 00:24:32.159 this was a surprising result.  
NOTE Confidence: 0.872675315333333

00:24:32.160 --> 00:24:33.768 You know, we have this cohort,  
NOTE Confidence: 0.872675315333333

00:24:33.770 --> 00:24:36.297 older people, a lot of medical problems,  
NOTE Confidence: 0.872675315333333

00:24:36.300 --> 00:24:38.508 a lot of medications, they're depressed,

NOTE Confidence: 0.872675315333333  
00:24:38.510 --> 00:24:39.809 they're cognitively impaired.  
NOTE Confidence: 0.872675315333333  
00:24:39.809 --> 00:24:42.407 And yet we have this kind  
NOTE Confidence: 0.872675315333333  
00:24:42.407 --> 00:24:44.420 of discordance between.  
NOTE Confidence: 0.872675315333333  
00:24:44.420 --> 00:24:44.922 I mean,  
NOTE Confidence: 0.872675315333333  
00:24:44.922 --> 00:24:46.679 we do see these symptoms are common,  
NOTE Confidence: 0.872675315333333  
00:24:46.680 --> 00:24:48.608 but they're not severe.  
NOTE Confidence: 0.872675315333333  
00:24:48.608 --> 00:24:53.240 And so it really did cause us to think well.  
NOTE Confidence: 0.872675315333333  
00:24:53.240 --> 00:24:53.982 Is there,  
NOTE Confidence: 0.872675315333333  
00:24:53.982 --> 00:24:55.466 is there discordance between  
NOTE Confidence: 0.872675315333333  
00:24:55.466 --> 00:24:57.637 how they perceive their sleep or  
NOTE Confidence: 0.872675315333333  
00:24:57.637 --> 00:24:59.503 how they report their sleep and  
NOTE Confidence: 0.872675315333333  
00:24:59.503 --> 00:25:01.269 how they're actually sleeping?  
NOTE Confidence: 0.872675315333333  
00:25:01.270 --> 00:25:04.007 And and to think maybe the existing  
NOTE Confidence: 0.872675315333333  
00:25:04.007 --> 00:25:06.003 self reported sleep measures are  
NOTE Confidence: 0.872675315333333  
00:25:06.003 --> 00:25:08.259 not appropriate in this age group  
NOTE Confidence: 0.872675315333333

00:25:08.259 --> 00:25:11.144 and so if if not, why might that be?  
NOTE Confidence: 0.872675315333333

00:25:11.144 --> 00:25:12.824 What are some potential mechanisms  
NOTE Confidence: 0.872675315333333

00:25:12.824 --> 00:25:15.385 here that might sort of explain the  
NOTE Confidence: 0.872675315333333

00:25:15.385 --> 00:25:16.825 discordance between what people  
NOTE Confidence: 0.872675315333333

00:25:16.883 --> 00:25:19.127 are reporting and what we're seeing  
NOTE Confidence: 0.872675315333333

00:25:19.127 --> 00:25:20.249 on objective measures?  
NOTE Confidence: 0.872675315333333

00:25:20.250 --> 00:25:20.900 So first,  
NOTE Confidence: 0.872675315333333

00:25:20.900 --> 00:25:23.175 it could be that symptoms are better  
NOTE Confidence: 0.872675315333333

00:25:23.175 --> 00:25:24.603 tolerated in this group, right?  
NOTE Confidence: 0.872675315333333

00:25:24.603 --> 00:25:25.768 They've been living with these  
NOTE Confidence: 0.872675315333333

00:25:25.768 --> 00:25:26.950 symptoms for a long time,  
NOTE Confidence: 0.872675315333333

00:25:26.950 --> 00:25:29.476 so maybe because of that they're  
NOTE Confidence: 0.872675315333333

00:25:29.476 --> 00:25:31.160 less likely to report  
NOTE Confidence: 0.914254293636364

00:25:31.240 --> 00:25:32.838 them. Could be lifestyle mediated.  
NOTE Confidence: 0.914254293636364

00:25:32.838 --> 00:25:35.447 They might not have the same caregiving  
NOTE Confidence: 0.914254293636364

00:25:35.447 --> 00:25:37.274 responsibilities, they may not have

NOTE Confidence: 0.914254293636364  
00:25:37.274 --> 00:25:38.358 the same work responsibilities,  
NOTE Confidence: 0.914254293636364  
00:25:38.360 --> 00:25:41.384 and so they can sort of adjust their  
NOTE Confidence: 0.914254293636364  
00:25:41.384 --> 00:25:43.690 lifestyle to deal with those sleep problems,  
NOTE Confidence: 0.914254293636364  
00:25:43.690 --> 00:25:45.574 whether it's trouble sleeping  
NOTE Confidence: 0.914254293636364  
00:25:45.574 --> 00:25:47.929 at night or daytime sleepiness.  
NOTE Confidence: 0.914254293636364  
00:25:47.930 --> 00:25:49.680 There is this phenomenon which  
NOTE Confidence: 0.914254293636364  
00:25:49.680 --> 00:25:51.430 is the paradox of well-being.  
NOTE Confidence: 0.914254293636364  
00:25:51.430 --> 00:25:53.488 And really what that is is that,  
NOTE Confidence: 0.914254293636364  
00:25:53.490 --> 00:25:56.394 you know, older people may be less likely  
NOTE Confidence: 0.914254293636364  
00:25:56.394 --> 00:25:58.758 to report dispatch dissatisfaction or  
NOTE Confidence: 0.914254293636364  
00:25:58.758 --> 00:26:01.358 distress because their actual state  
NOTE Confidence: 0.914254293636364  
00:26:01.358 --> 00:26:04.399 of health exceeds what they expected.  
NOTE Confidence: 0.914254293636364  
00:26:04.400 --> 00:26:06.050 And I do hear this in clinic all the time.  
NOTE Confidence: 0.914254293636364  
00:26:06.050 --> 00:26:06.790 It's sort of like well,  
NOTE Confidence: 0.914254293636364  
00:26:06.790 --> 00:26:07.802 what do you expect?  
NOTE Confidence: 0.914254293636364

00:26:07.802 --> 00:26:10.445 I'm 85, you know, so I think that they're,  
NOTE Confidence: 0.914254293636364

00:26:10.450 --> 00:26:14.048 it's possible that there are you know.  
NOTE Confidence: 0.914254293636364

00:26:14.050 --> 00:26:15.875 Perhaps they they're doing better  
NOTE Confidence: 0.914254293636364

00:26:15.875 --> 00:26:18.422 than they thought, and so they might  
NOTE Confidence: 0.914254293636364

00:26:18.422 --> 00:26:20.600 not report symptoms because of that.  
NOTE Confidence: 0.914254293636364

00:26:20.600 --> 00:26:21.840 And then, you know,  
NOTE Confidence: 0.914254293636364

00:26:21.840 --> 00:26:23.080 there's this question about  
NOTE Confidence: 0.914254293636364

00:26:23.080 --> 00:26:24.700 validity of existing measures.  
NOTE Confidence: 0.914254293636364

00:26:24.700 --> 00:26:26.608 I'm really studying a population in  
NOTE Confidence: 0.914254293636364

00:26:26.608 --> 00:26:29.127 their in their 80s and these were not  
NOTE Confidence: 0.914254293636364

00:26:29.127 --> 00:26:31.489 people who were studied in some of these.  
NOTE Confidence: 0.914254293636364

00:26:31.490 --> 00:26:32.966 Of these sort of, you know,  
NOTE Confidence: 0.914254293636364

00:26:32.970 --> 00:26:34.656 original validation studies.  
NOTE Confidence: 0.914254293636364

00:26:34.656 --> 00:26:36.176 And so, you know,  
NOTE Confidence: 0.914254293636364

00:26:36.176 --> 00:26:37.760 if I were to point out just a  
NOTE Confidence: 0.914254293636364

00:26:37.817 --> 00:26:39.735 couple things like let's look at a

NOTE Confidence: 0.914254293636364  
00:26:39.735 --> 00:26:41.328 couple of questions from the ISIS.  
NOTE Confidence: 0.914254293636364  
00:26:41.330 --> 00:26:43.260 How worried or distressed are  
NOTE Confidence: 0.914254293636364  
00:26:43.260 --> 00:26:45.190 you about your sleep problem?  
NOTE Confidence: 0.914254293636364  
00:26:45.190 --> 00:26:47.452 How much does it interfere with  
NOTE Confidence: 0.914254293636364  
00:26:47.452 --> 00:26:48.583 your daily function?  
NOTE Confidence: 0.914254293636364  
00:26:48.590 --> 00:26:50.878 Perhaps that's not particularly  
NOTE Confidence: 0.914254293636364  
00:26:50.878 --> 00:26:53.166 meaningful to this population.  
NOTE Confidence: 0.914254293636364  
00:26:53.170 --> 00:26:54.770 And then if we look at the Epworth,  
NOTE Confidence: 0.914254293636364  
00:26:54.770 --> 00:26:56.708 the, you know, and are they,  
NOTE Confidence: 0.914254293636364  
00:26:56.710 --> 00:26:58.845 many of my patients have low vision,  
NOTE Confidence: 0.914254293636364  
00:26:58.850 --> 00:27:01.382 so they might not be reading, they might.  
NOTE Confidence: 0.914254293636364  
00:27:01.382 --> 00:27:02.918 Not be watching TV and they  
NOTE Confidence: 0.914254293636364  
00:27:02.918 --> 00:27:04.500 may no longer be driving,  
NOTE Confidence: 0.914254293636364  
00:27:04.500 --> 00:27:06.908 and so it's possible that certain questions  
NOTE Confidence: 0.914254293636364  
00:27:06.908 --> 00:27:09.108 in the airports don't apply either.  
NOTE Confidence: 0.87566411

00:27:11.170 --> 00:27:13.704 And so then the the other potential

NOTE Confidence: 0.87566411

00:27:13.704 --> 00:27:16.036 mechanism is could there be a

NOTE Confidence: 0.87566411

00:27:16.036 --> 00:27:17.604 blunted awareness of symptoms.

NOTE Confidence: 0.87566411

00:27:17.610 --> 00:27:19.794 So we have seen this in

NOTE Confidence: 0.87566411

00:27:19.794 --> 00:27:21.250 other domains of health.

NOTE Confidence: 0.87566411

00:27:21.250 --> 00:27:24.034 So for example, older adults have

NOTE Confidence: 0.87566411

00:27:24.034 --> 00:27:25.890 milder respiratory symptoms in

NOTE Confidence: 0.87566411

00:27:25.968 --> 00:27:28.290 response to bronchoconstriction.

NOTE Confidence: 0.87566411

00:27:28.290 --> 00:27:30.390 They have less severe symptoms

NOTE Confidence: 0.87566411

00:27:30.390 --> 00:27:32.070 in response to hypoglycemia

NOTE Confidence: 0.87566411

00:27:32.070 --> 00:27:34.799 and they have higher rates of

NOTE Confidence: 0.87566411

00:27:34.799 --> 00:27:36.143 silent myocardial ischemia.

NOTE Confidence: 0.87566411

00:27:36.150 --> 00:27:37.818 And then actually specifically

NOTE Confidence: 0.87566411

00:27:37.818 --> 00:27:39.903 in the world of sleep,

NOTE Confidence: 0.87566411

00:27:39.910 --> 00:27:42.592 one of my prior mentors published

NOTE Confidence: 0.87566411

00:27:42.592 --> 00:27:45.589 this work where he was comparing

NOTE Confidence: 0.87566411

00:27:45.590 --> 00:27:46.854 middle-aged and older adults.

NOTE Confidence: 0.87566411

00:27:46.854 --> 00:27:49.110 And what he found in this work

NOTE Confidence: 0.87566411

00:27:49.110 --> 00:27:50.868 is that the older adults had

NOTE Confidence: 0.87566411

00:27:50.868 --> 00:27:52.390 more severe sleep disorders,

NOTE Confidence: 0.87566411

00:27:52.390 --> 00:27:54.750 but were reporting milder insomnia,

NOTE Confidence: 0.87566411

00:27:54.750 --> 00:27:56.930 mild hypersomnia and less fatigue.

NOTE Confidence: 0.932357534

00:28:00.220 --> 00:28:04.110 So why does it matter?

NOTE Confidence: 0.932357534

00:28:04.110 --> 00:28:05.330 This is the shrug emoji.

NOTE Confidence: 0.932357534

00:28:05.330 --> 00:28:07.292 This is my daughter's doing their

NOTE Confidence: 0.932357534

00:28:07.292 --> 00:28:09.369 best impression of the shrug emoji.

NOTE Confidence: 0.932357534

00:28:09.370 --> 00:28:12.684 This is something that I really had

NOTE Confidence: 0.932357534

00:28:12.684 --> 00:28:15.186 to bring to the geriatrician audience

NOTE Confidence: 0.932357534

00:28:15.186 --> 00:28:17.658 because they said if it ain't broke,

NOTE Confidence: 0.932357534

00:28:17.660 --> 00:28:18.724 don't fix it, right?

NOTE Confidence: 0.932357534

00:28:18.724 --> 00:28:20.810 If they're not reporting the sleep problems,

NOTE Confidence: 0.932357534

00:28:20.810 --> 00:28:22.088 then what are you doing here?  
NOTE Confidence: 0.932357534

00:28:22.090 --> 00:28:23.178 They, they they didn't  
NOTE Confidence: 0.932357534

00:28:23.178 --> 00:28:24.810 really love this idea of the,  
NOTE Confidence: 0.932357534

00:28:24.810 --> 00:28:26.588 the road that I was going down.  
NOTE Confidence: 0.932357534

00:28:26.590 --> 00:28:30.073 And so, you know what I say to them is this  
NOTE Confidence: 0.932357534

00:28:30.073 --> 00:28:33.295 is potentially a missed opportunity, right?  
NOTE Confidence: 0.932357534

00:28:33.295 --> 00:28:35.170 If we're not.  
NOTE Confidence: 0.932357534

00:28:35.170 --> 00:28:36.862 Hearing the symptoms,  
NOTE Confidence: 0.932357534

00:28:36.862 --> 00:28:40.810 if we're not detecting these sleep problems,  
NOTE Confidence: 0.932357534

00:28:40.810 --> 00:28:42.826 then we're not intervening upon them  
NOTE Confidence: 0.932357534

00:28:42.826 --> 00:28:44.877 and we're not preventing the adverse  
NOTE Confidence: 0.932357534

00:28:44.877 --> 00:28:46.502 outcomes that could come about  
NOTE Confidence: 0.932357534

00:28:46.502 --> 00:28:48.359 because of these sleep problems.  
NOTE Confidence: 0.932357534

00:28:48.360 --> 00:28:51.048 And I would also say we're not  
NOTE Confidence: 0.932357534

00:28:51.048 --> 00:28:53.180 appropriately evaluating our interventions.  
NOTE Confidence: 0.932357534

00:28:53.180 --> 00:28:55.224 And so the example like I'd like

NOTE Confidence: 0.932357534

00:28:55.224 --> 00:28:57.536 to give is the LIFE study which

NOTE Confidence: 0.932357534

00:28:57.536 --> 00:28:59.820 was this large national multi site

NOTE Confidence: 0.932357534

00:28:59.820 --> 00:29:03.376 study of older adults to look at a

NOTE Confidence: 0.932357534

00:29:03.376 --> 00:29:05.480 physical activity and intervention

NOTE Confidence: 0.932357534

00:29:05.480 --> 00:29:08.644 to prevent disability and as a

NOTE Confidence: 0.932357534

00:29:08.644 --> 00:29:11.350 secondary outcome they looked at the.

NOTE Confidence: 0.932357534

00:29:11.350 --> 00:29:13.595 Effect of this physical activity

NOTE Confidence: 0.932357534

00:29:13.595 --> 00:29:15.840 intervention on the Epworth and

NOTE Confidence: 0.932357534

00:29:15.913 --> 00:29:18.230 the ISIL and there was no change.

NOTE Confidence: 0.932357534

00:29:18.230 --> 00:29:20.618 And so is that because physical

NOTE Confidence: 0.932357534

00:29:20.618 --> 00:29:22.576 activity doesn't do anything to

NOTE Confidence: 0.932357534

00:29:22.576 --> 00:29:24.912 help sleep or is it because we don't

NOTE Confidence: 0.932357534

00:29:24.912 --> 00:29:27.344 have the right tools to evaluate the

NOTE Confidence: 0.932357534

00:29:27.344 --> 00:29:29.720 change in sleep that might happen from

NOTE Confidence: 0.932357534

00:29:29.720 --> 00:29:31.040 a physical activity intervention?

NOTE Confidence: 0.9114389016

00:29:34.180 --> 00:29:37.330 So this really sort of took me to the  
NOTE Confidence: 0.9114389016

00:29:37.330 --> 00:29:40.929 next part of my research was to to  
NOTE Confidence: 0.9114389016

00:29:40.929 --> 00:29:43.000 start incorporating some objective  
NOTE Confidence: 0.9114389016

00:29:43.000 --> 00:29:48.160 measures of sleep deficiency and so.  
NOTE Confidence: 0.9114389016

00:29:48.160 --> 00:29:49.728 I'm going to tell you a bit about  
NOTE Confidence: 0.9114389016

00:29:49.728 --> 00:29:51.266 this project that I did where I was  
NOTE Confidence: 0.9114389016

00:29:51.266 --> 00:29:52.730 looking at really if you think about  
NOTE Confidence: 0.9114389016

00:29:52.730 --> 00:29:54.092 it in terms of sleep deficiency,  
NOTE Confidence: 0.9114389016

00:29:54.100 --> 00:29:55.609 insufficient sleep duration,  
NOTE Confidence: 0.9114389016

00:29:55.609 --> 00:29:57.621 so comparing self reported  
NOTE Confidence: 0.9114389016

00:29:57.621 --> 00:29:59.600 and objective short sleep.  
NOTE Confidence: 0.9114389016

00:29:59.600 --> 00:30:01.744 And so, you know, I wanted to look  
NOTE Confidence: 0.9114389016

00:30:01.744 --> 00:30:04.059 at the prevalence of short sleep,  
NOTE Confidence: 0.9114389016

00:30:04.060 --> 00:30:06.678 but again because I was thinking about  
NOTE Confidence: 0.9114389016

00:30:06.678 --> 00:30:08.193 this potential discordance between  
NOTE Confidence: 0.9114389016

00:30:08.193 --> 00:30:10.161 what older adults were reporting and

NOTE Confidence: 0.9114389016

00:30:10.161 --> 00:30:12.418 how they may actually be sleeping,

NOTE Confidence: 0.9114389016

00:30:12.420 --> 00:30:15.068 I wanted to look at the diagnostic accuracy

NOTE Confidence: 0.9114389016

00:30:15.068 --> 00:30:18.078 of self report versus an objective measure.

NOTE Confidence: 0.9114389016

00:30:18.080 --> 00:30:19.388 And so you know,

NOTE Confidence: 0.9114389016

00:30:19.388 --> 00:30:21.350 we define short sleep is less

NOTE Confidence: 0.9114389016

00:30:21.421 --> 00:30:23.335 than or equal to six hours.

NOTE Confidence: 0.9114389016

00:30:23.340 --> 00:30:25.236 I'm showing you this U-shaped curve,

NOTE Confidence: 0.9114389016

00:30:25.240 --> 00:30:26.936 which probably many of you have seen before,

NOTE Confidence: 0.9114389016

00:30:26.940 --> 00:30:29.886 but we know that sleep duration.

NOTE Confidence: 0.9114389016

00:30:29.890 --> 00:30:32.032 Has this huge shaped curve whether

NOTE Confidence: 0.9114389016

00:30:32.032 --> 00:30:34.275 we're talking about mortality and many

NOTE Confidence: 0.9114389016

00:30:34.275 --> 00:30:35.791 other cardiovascular and metabolic

NOTE Confidence: 0.9114389016

00:30:35.791 --> 00:30:37.870 outcomes and it's really you know,

NOTE Confidence: 0.9114389016

00:30:37.870 --> 00:30:39.910 so, so long sleep is associated

NOTE Confidence: 0.9114389016

00:30:39.910 --> 00:30:40.930 with worsening outcomes,

NOTE Confidence: 0.9114389016

00:30:40.930 --> 00:30:43.464 but then short sleep really at 6  
NOTE Confidence: 0.9114389016

00:30:43.464 --> 00:30:46.152 hours and below is also associated  
NOTE Confidence: 0.9114389016

00:30:46.152 --> 00:30:48.180 with these adverse outcomes.  
NOTE Confidence: 0.9114389016

00:30:48.180 --> 00:30:50.728 So that's how we define short sleep  
NOTE Confidence: 0.9114389016

00:30:50.728 --> 00:30:54.566 and I use data from the study of  
NOTE Confidence: 0.9114389016

00:30:54.566 --> 00:30:56.698 osteoporotic fractures and the  
NOTE Confidence: 0.9114389016

00:30:56.698 --> 00:30:59.180 osteoporotic fractures in men study,  
NOTE Confidence: 0.9114389016

00:30:59.180 --> 00:31:02.855 the ancillary study that's based on sleep.  
NOTE Confidence: 0.9114389016

00:31:02.860 --> 00:31:04.372 A lot of you are probably familiar  
NOTE Confidence: 0.9114389016

00:31:04.372 --> 00:31:05.770 with this and if you're interested  
NOTE Confidence: 0.9114389016

00:31:05.770 --> 00:31:07.180 in aging at all and sleep,  
NOTE Confidence: 0.9114389016

00:31:07.180 --> 00:31:10.155 you know this is this is really  
NOTE Confidence: 0.9114389016

00:31:10.155 --> 00:31:12.280 a really wonderful resource.  
NOTE Confidence: 0.9114389016

00:31:12.280 --> 00:31:14.160 And so I'm going to spend a little  
NOTE Confidence: 0.9114389016

00:31:14.160 --> 00:31:15.408 time talking about it because  
NOTE Confidence: 0.9114389016

00:31:15.408 --> 00:31:17.088 a couple of the projects that I

NOTE Confidence: 0.9114389016

00:31:17.145 --> 00:31:18.645 did have been using data from.

NOTE Confidence: 0.9114389016

00:31:18.650 --> 00:31:21.380 These two cohorts so soft is women

NOTE Confidence: 0.9114389016

00:31:21.380 --> 00:31:24.629 and at the time I'm studying them,

NOTE Confidence: 0.9114389016

00:31:24.630 --> 00:31:26.000 the mean age was 84.

NOTE Confidence: 0.9114389016

00:31:26.000 --> 00:31:29.285 You can see over 3000 women and then men.

NOTE Confidence: 0.9114389016

00:31:29.290 --> 00:31:34.450 Mr Oss about 3000 men with a mean age of 76.

NOTE Confidence: 0.9114389016

00:31:34.450 --> 00:31:36.892 And so these studies were designed

NOTE Confidence: 0.9114389016

00:31:36.892 --> 00:31:38.520 to evaluate many determinants

NOTE Confidence: 0.9114389016

00:31:38.587 --> 00:31:39.859 of successful aging.

NOTE Confidence: 0.9114389016

00:31:39.860 --> 00:31:41.340 And so because of that,

NOTE Confidence: 0.9114389016

00:31:41.340 --> 00:31:43.156 they incorporated comprehensive sleep

NOTE Confidence: 0.9114389016

00:31:43.156 --> 00:31:46.400 visits at a couple different time points.

NOTE Confidence: 0.9114389016

00:31:46.400 --> 00:31:50.838 And as part of that comprehensive visit,

NOTE Confidence: 0.9114389016

00:31:50.840 --> 00:31:52.022 we had actigraphy.

NOTE Confidence: 0.9114389016

00:31:52.022 --> 00:31:53.992 So that's the objective measure

NOTE Confidence: 0.9114389016

00:31:53.992 --> 00:31:56.372 that I use for the study that  
NOTE Confidence: 0.9114389016

00:31:56.372 --> 00:31:58.380 I'm going to tell you about.  
NOTE Confidence: 0.9114389016

00:31:58.380 --> 00:32:00.116 And then I just want to highlight  
NOTE Confidence: 0.9114389016

00:32:00.116 --> 00:32:01.648 a couple things because I'm going  
NOTE Confidence: 0.9114389016

00:32:01.648 --> 00:32:03.349 to refer to them here and also  
NOTE Confidence: 0.9114389016

00:32:03.407 --> 00:32:04.877 in some of the other studies.  
NOTE Confidence: 0.9114389016

00:32:04.880 --> 00:32:06.824 But this is a big reason why this  
NOTE Confidence: 0.9114389016

00:32:06.824 --> 00:32:08.881 is such a wonderful cohort to study  
NOTE Confidence: 0.9114389016

00:32:08.881 --> 00:32:11.343 because we get to study all of these  
NOTE Confidence: 0.9114389016

00:32:11.343 --> 00:32:13.804 things that are so important in older people.  
NOTE Confidence: 0.9114389016

00:32:13.804 --> 00:32:14.188 Multimorbidity,  
NOTE Confidence: 0.9114389016

00:32:14.188 --> 00:32:16.492 which I'm going to be defining  
NOTE Confidence: 0.9114389016

00:32:16.492 --> 00:32:18.896 as having at least chronic 3  
NOTE Confidence: 0.9114389016

00:32:18.896 --> 00:32:20.078 chronic medical conditions,  
NOTE Confidence: 0.9114389016

00:32:20.080 --> 00:32:23.769 they have measures of depression and anxiety.  
NOTE Confidence: 0.9114389016

00:32:23.770 --> 00:32:26.190 They have great information about

NOTE Confidence: 0.9114389016  
00:32:26.190 --> 00:32:28.248 medication use, so antidepressants.  
NOTE Confidence: 0.9114389016  
00:32:28.248 --> 00:32:30.968 Activating medications which is a  
NOTE Confidence: 0.9114389016  
00:32:30.968 --> 00:32:34.014 stimulant or an oral steroid and  
NOTE Confidence: 0.9114389016  
00:32:34.014 --> 00:32:36.172 then CNS active medications, so.  
NOTE Confidence: 0.9114389016  
00:32:36.172 --> 00:32:36.794 Benzodiazepines,  
NOTE Confidence: 0.9114389016  
00:32:36.794 --> 00:32:37.416 anticonvulsants,  
NOTE Confidence: 0.9114389016  
00:32:37.416 --> 00:32:39.282 narcotics and antipsychotics  
NOTE Confidence: 0.9114389016  
00:32:39.282 --> 00:32:41.770 and then they have  
NOTE Confidence: 0.8857249333333333  
00:32:41.843 --> 00:32:44.219 information on these geriatric  
NOTE Confidence: 0.8857249333333333  
00:32:44.219 --> 00:32:46.595 conditions or geriatric syndromes.  
NOTE Confidence: 0.8857249333333333  
00:32:46.600 --> 00:32:48.118 So cognitive impairment,  
NOTE Confidence: 0.8857249333333333  
00:32:48.118 --> 00:32:50.648 physical impairment which is really  
NOTE Confidence: 0.8857249333333333  
00:32:50.648 --> 00:32:54.125 a gate speed is a well validated  
NOTE Confidence: 0.8857249333333333  
00:32:54.125 --> 00:32:56.037 measure of physical impairment.  
NOTE Confidence: 0.8857249333333333  
00:32:56.040 --> 00:32:58.434 They have frailty and a previously  
NOTE Confidence: 0.8857249333333333

00:32:58.434 --> 00:33:00.030 validated soft frailty index  
NOTE Confidence: 0.8857249333333333

00:33:00.098 --> 00:33:01.998 and then information on falls,  
NOTE Confidence: 0.8857249333333333

00:33:02.000 --> 00:33:04.070 another really important geriatric syndrome.  
NOTE Confidence: 0.884377446

00:33:06.360 --> 00:33:08.416 OK. So again, because I'm going to be  
NOTE Confidence: 0.884377446

00:33:08.416 --> 00:33:10.098 talking about this cohort for a bit,  
NOTE Confidence: 0.884377446

00:33:10.100 --> 00:33:11.576 I figured I should just tell  
NOTE Confidence: 0.884377446

00:33:11.576 --> 00:33:13.220 you a little bit about them.  
NOTE Confidence: 0.884377446

00:33:13.220 --> 00:33:15.782 So you can see men were a  
NOTE Confidence: 0.884377446

00:33:15.782 --> 00:33:17.879 little bit younger than women,  
NOTE Confidence: 0.884377446

00:33:17.880 --> 00:33:20.136 average age was 76 versus 84.  
NOTE Confidence: 0.884377446

00:33:20.140 --> 00:33:23.059 And that's just because the men's cohort,  
NOTE Confidence: 0.884377446

00:33:23.060 --> 00:33:24.048 that study started later.  
NOTE Confidence: 0.884377446

00:33:24.048 --> 00:33:25.530 So by the time the sleep  
NOTE Confidence: 0.884377446

00:33:25.584 --> 00:33:26.970 visit was done in the women,  
NOTE Confidence: 0.884377446

00:33:26.970 --> 00:33:30.930 they were actually significantly older.  
NOTE Confidence: 0.884377446

00:33:30.930 --> 00:33:32.310 You can see the minority race.

NOTE Confidence: 0.884377446

00:33:32.310 --> 00:33:34.788 Ethnicity is about 10% of these cohorts.

NOTE Confidence: 0.884377446

00:33:34.790 --> 00:33:36.914 And you can also see the women probably as

NOTE Confidence: 0.884377446

00:33:36.914 --> 00:33:39.346 a function of the fact that they're older,

NOTE Confidence: 0.884377446

00:33:39.350 --> 00:33:40.301 they're less educated,

NOTE Confidence: 0.884377446

00:33:40.301 --> 00:33:41.886 they're more likely to live

NOTE Confidence: 0.884377446

00:33:41.886 --> 00:33:43.170 alone or be widowed,

NOTE Confidence: 0.884377446

00:33:43.170 --> 00:33:44.970 and they have more medical conditions,

NOTE Confidence: 0.884377446

00:33:44.970 --> 00:33:46.036 more multimorbidity,

NOTE Confidence: 0.884377446

00:33:46.036 --> 00:33:47.102 more depression,

NOTE Confidence: 0.884377446

00:33:47.102 --> 00:33:49.767 anxiety and more physical impairment.

NOTE Confidence: 0.879158488695653

00:33:52.500 --> 00:33:54.867 And so here is the study where we really

NOTE Confidence: 0.879158488695653

00:33:54.867 --> 00:33:56.964 looked at the agreement between a self

NOTE Confidence: 0.879158488695653

00:33:56.964 --> 00:33:59.220 report of short sleep and the objective,

NOTE Confidence: 0.879158488695653

00:33:59.220 --> 00:34:02.237 in this case actor graphic short sleep.

NOTE Confidence: 0.879158488695653

00:34:02.240 --> 00:34:05.072 And so this is here's some very fancy

NOTE Confidence: 0.879158488695653

00:34:05.072 --> 00:34:07.681 statistics where I'm doing a two by  
NOTE Confidence: 0.879158488695653

00:34:07.681 --> 00:34:09.516 two table and calculating sensitivity  
NOTE Confidence: 0.879158488695653

00:34:09.582 --> 00:34:11.807 specificity using actigraphy as the  
NOTE Confidence: 0.879158488695653

00:34:11.807 --> 00:34:14.032 sort of reference standard here.  
NOTE Confidence: 0.879158488695653

00:34:14.040 --> 00:34:16.210 And so I want to just focus  
NOTE Confidence: 0.879158488695653

00:34:16.210 --> 00:34:17.980 on these blue quadrants,  
NOTE Confidence: 0.879158488695653

00:34:17.980 --> 00:34:20.338 which is where things don't match.  
NOTE Confidence: 0.879158488695653

00:34:20.340 --> 00:34:22.596 OK, so you have someone who's.  
NOTE Confidence: 0.879158488695653

00:34:22.600 --> 00:34:24.544 Saying they don't have short sleep  
NOTE Confidence: 0.879158488695653

00:34:24.544 --> 00:34:26.060 but Actigraphy is showing it.  
NOTE Confidence: 0.879158488695653

00:34:26.060 --> 00:34:28.538 Or they say they do and actigraphy  
NOTE Confidence: 0.879158488695653

00:34:28.538 --> 00:34:30.949 is showing they have normal sleep.  
NOTE Confidence: 0.879158488695653

00:34:30.950 --> 00:34:33.219 So you can see this about 30% of  
NOTE Confidence: 0.879158488695653

00:34:33.219 --> 00:34:36.012 men in the women also very common  
NOTE Confidence: 0.879158488695653

00:34:36.012 --> 00:34:38.723 to have these discordant numbers and  
NOTE Confidence: 0.879158488695653

00:34:38.723 --> 00:34:42.630 so if you look at the sensitivity.

NOTE Confidence: 0.879158488695653  
00:34:42.630 --> 00:34:43.755 It's pretty poor.  
NOTE Confidence: 0.879158488695653  
00:34:43.755 --> 00:34:46.380 So there's a high false negative rate.  
NOTE Confidence: 0.879158488695653  
00:34:46.380 --> 00:34:48.876 Specificity is a little bit better,  
NOTE Confidence: 0.879158488695653  
00:34:48.880 --> 00:34:51.346 but also still pretty poor with  
NOTE Confidence: 0.879158488695653  
00:34:51.346 --> 00:34:53.460 a high false positive rate.  
NOTE Confidence: 0.879158488695653  
00:34:53.460 --> 00:34:55.886 So what this means is that, you know,  
NOTE Confidence: 0.879158488695653  
00:34:55.886 --> 00:34:57.398 we have missed opportunities.  
NOTE Confidence: 0.879158488695653  
00:34:57.400 --> 00:34:59.176 We have, you know,  
NOTE Confidence: 0.879158488695653  
00:34:59.176 --> 00:35:01.396 short sleep that we're potentially  
NOTE Confidence: 0.879158488695653  
00:35:01.396 --> 00:35:03.720 missing and we're not intervening upon.  
NOTE Confidence: 0.879158488695653  
00:35:03.720 --> 00:35:06.880 But we also have the potential for overtree,  
NOTE Confidence: 0.879158488695653  
00:35:06.880 --> 00:35:07.303 right?  
NOTE Confidence: 0.879158488695653  
00:35:07.303 --> 00:35:09.418 Perhaps we're identifying people with  
NOTE Confidence: 0.879158488695653  
00:35:09.418 --> 00:35:12.648 short sleep and maybe using a benzodiazepine.  
NOTE Confidence: 0.879158488695653  
00:35:12.650 --> 00:35:14.515 And that's inappropriate and setting  
NOTE Confidence: 0.879158488695653

00:35:14.515 --> 00:35:17.589 them up for risk of adverse outcomes.  
NOTE Confidence: 0.874634087272727

00:35:19.990 --> 00:35:22.646 So you know, this is I think really  
NOTE Confidence: 0.874634087272727

00:35:22.646 --> 00:35:25.627 pointing to the need to go beyond just  
NOTE Confidence: 0.874634087272727

00:35:25.627 --> 00:35:28.119 self reported measures and older people.  
NOTE Confidence: 0.93114931

00:35:30.130 --> 00:35:32.643 But I also want to show you that this is not  
NOTE Confidence: 0.93114931

00:35:32.643 --> 00:35:34.925 just when we're talking about sleep duration.  
NOTE Confidence: 0.93114931

00:35:34.930 --> 00:35:38.098 And so this next project that I'm going to  
NOTE Confidence: 0.93114931

00:35:38.098 --> 00:35:41.034 present with the Mr Ross and soft cohorts  
NOTE Confidence: 0.93114931

00:35:41.034 --> 00:35:43.449 looks at positive sleep discrepancy.  
NOTE Confidence: 0.93114931

00:35:43.450 --> 00:35:45.142 So first let me tell you what that is.  
NOTE Confidence: 0.93114931

00:35:45.150 --> 00:35:47.292 I didn't make it up to sort of a  
NOTE Confidence: 0.93114931

00:35:47.292 --> 00:35:49.168 known entity in Sleep Medicine.  
NOTE Confidence: 0.93114931

00:35:49.170 --> 00:35:51.144 This is when self reported sleep is  
NOTE Confidence: 0.93114931

00:35:51.144 --> 00:35:53.351 in the direction of less impairment  
NOTE Confidence: 0.93114931

00:35:53.351 --> 00:35:55.087 and corresponding objective measures.  
NOTE Confidence: 0.93114931

00:35:55.090 --> 00:35:57.778 And so it really is now we're

NOTE Confidence: 0.93114931

00:35:57.778 --> 00:36:00.190 focusing on that sort of false.

NOTE Confidence: 0.93114931

00:36:00.190 --> 00:36:03.760 Negative quadrant, OK.

NOTE Confidence: 0.93114931

00:36:03.760 --> 00:36:04.304 And again,

NOTE Confidence: 0.93114931

00:36:04.304 --> 00:36:06.208 I think it's important because this is

NOTE Confidence: 0.93114931

00:36:06.208 --> 00:36:07.820 a missed opportunity and potentially

NOTE Confidence: 0.93114931

00:36:07.820 --> 00:36:10.323 this is a common thing to find an

NOTE Confidence: 0.93114931

00:36:10.323 --> 00:36:12.150 older people for all of those things

NOTE Confidence: 0.93114931

00:36:12.150 --> 00:36:14.175 that I mentioned before because of

NOTE Confidence: 0.93114931

00:36:14.175 --> 00:36:16.333 because we're not asking the right

NOTE Confidence: 0.93114931

00:36:16.333 --> 00:36:18.367 questions or maybe they're you know

NOTE Confidence: 0.93114931

00:36:18.367 --> 00:36:20.779 have a blunted awareness of symptoms.

NOTE Confidence: 0.93114931

00:36:20.780 --> 00:36:23.282 And so we wanted to look at the prevalence

NOTE Confidence: 0.93114931

00:36:23.282 --> 00:36:25.947 of positive sleep discrepancy and also

NOTE Confidence: 0.93114931

00:36:25.947 --> 00:36:28.267 what are the characteristics associated

NOTE Confidence: 0.93114931

00:36:28.330 --> 00:36:30.310 with positive sleep discrepancy.

NOTE Confidence: 0.93114931

00:36:30.310 --> 00:36:32.686 So again we're looking in the Mr Ross  
NOTE Confidence: 0.93114931

00:36:32.686 --> 00:36:35.352 and soft cohort and so when I now I want  
NOTE Confidence: 0.93114931

00:36:35.352 --> 00:36:37.670 to tell you this is how we sort of.  
NOTE Confidence: 0.93114931

00:36:37.670 --> 00:36:38.304 You know,  
NOTE Confidence: 0.93114931

00:36:38.304 --> 00:36:40.523 started to look at this analytical sample.  
NOTE Confidence: 0.93114931

00:36:40.530 --> 00:36:42.994 So we started with people who had  
NOTE Confidence: 0.93114931

00:36:42.994 --> 00:36:45.330 no self reported sleep deficiency.  
NOTE Confidence: 0.93114931

00:36:45.330 --> 00:36:47.100 And here I'm defining that as  
NOTE Confidence: 0.93114931

00:36:47.100 --> 00:36:49.232 people with a normal score on the  
NOTE Confidence: 0.93114931

00:36:49.232 --> 00:36:51.522 Epworth and a normal score on the  
NOTE Confidence: 0.93114931

00:36:51.522 --> 00:36:52.850 Pittsburgh Sleep Quality index.  
NOTE Confidence: 0.93114931

00:36:52.850 --> 00:36:53.168 OK,  
NOTE Confidence: 0.93114931

00:36:53.168 --> 00:36:54.758 so these are people really  
NOTE Confidence: 0.93114931

00:36:54.758 --> 00:36:56.486 if we had administered these  
NOTE Confidence: 0.93114931

00:36:56.486 --> 00:36:58.436 questionnaires when they said OK,  
NOTE Confidence: 0.93114931

00:36:58.440 --> 00:36:59.658 these people don't have a problem.

NOTE Confidence: 0.799180101111111

00:37:01.700 --> 00:37:06.317 So in men we had about 3000 with Actigraphy.

NOTE Confidence: 0.799180101111111

00:37:06.320 --> 00:37:08.254 And on the next slide, I'll be clear why.

NOTE Confidence: 0.799180101111111

00:37:08.254 --> 00:37:09.700 I was sort of focusing on

NOTE Confidence: 0.799180101111111

00:37:09.758 --> 00:37:11.018 people with actigraphy.

NOTE Confidence: 0.799180101111111

00:37:11.020 --> 00:37:14.566 And so it was about 1500 men.

NOTE Confidence: 0.799180101111111

00:37:14.566 --> 00:37:17.824 Of that group who had normal,

NOTE Confidence: 0.799180101111111

00:37:17.830 --> 00:37:23.080 Epworth and PSQI scores so in women.

NOTE Confidence: 0.799180101111111

00:37:23.080 --> 00:37:26.230 We were looking at visit 9 and

NOTE Confidence: 0.799180101111111

00:37:26.230 --> 00:37:29.986 830 of them had actigraphy data

NOTE Confidence: 0.799180101111111

00:37:29.986 --> 00:37:33.578 and of those 333 women had normal

NOTE Confidence: 0.799180101111111

00:37:33.578 --> 00:37:36.660 scores on the Epworth and the PSQI.

NOTE Confidence: 0.799180101111111

00:37:36.660 --> 00:37:39.360 And so now I'm going to tell you how

NOTE Confidence: 0.799180101111111

00:37:39.360 --> 00:37:42.507 I defined objective sleep deficiency.

NOTE Confidence: 0.799180101111111

00:37:42.510 --> 00:37:44.352 That was having a deficit and

NOTE Confidence: 0.799180101111111

00:37:44.352 --> 00:37:46.609 at least one of these domains.

NOTE Confidence: 0.799180101111111

00:37:46.610 --> 00:37:48.998 So duration or saying now a  
NOTE Confidence: 0.7991801011111111

00:37:48.998 --> 00:37:51.579 deficit and duration which was an  
NOTE Confidence: 0.7991801011111111

00:37:51.579 --> 00:37:52.950 active average activity,  
NOTE Confidence: 0.7991801011111111

00:37:52.950 --> 00:37:56.430 raphy duration less than 320 minutes  
NOTE Confidence: 0.7991801011111111

00:37:56.430 --> 00:38:00.230 or it's it's a little over 5 hours.  
NOTE Confidence: 0.7991801011111111

00:38:00.230 --> 00:38:02.618 Quality was also from Actigraphy wake  
NOTE Confidence: 0.7991801011111111

00:38:02.618 --> 00:38:05.657 after sleep onset of at least 88 minutes.  
NOTE Confidence: 0.7991801011111111

00:38:05.660 --> 00:38:07.805 Regularity was the standard deviation  
NOTE Confidence: 0.7991801011111111

00:38:07.805 --> 00:38:09.950 of the actigraphy derived sleep  
NOTE Confidence: 0.7991801011111111

00:38:10.019 --> 00:38:12.594 midpoint being greater than 65 minutes.  
NOTE Confidence: 0.7991801011111111

00:38:12.594 --> 00:38:15.276 And I base these on previously  
NOTE Confidence: 0.7991801011111111

00:38:15.276 --> 00:38:17.952 published work from Mr Oss looking  
NOTE Confidence: 0.7991801011111111

00:38:17.952 --> 00:38:20.072 at these different domains and  
NOTE Confidence: 0.7991801011111111

00:38:20.072 --> 00:38:22.538 how they predicted mortality.  
NOTE Confidence: 0.7991801011111111

00:38:22.540 --> 00:38:24.478 So that's sort of where these  
NOTE Confidence: 0.7991801011111111

00:38:24.478 --> 00:38:26.160 cut offs are derived from.

NOTE Confidence: 0.7991801011111111  
00:38:26.160 --> 00:38:28.610 And then I looked at daytime alertness  
NOTE Confidence: 0.7991801011111111  
00:38:28.610 --> 00:38:30.600 using the psychomotor vigilance task.  
NOTE Confidence: 0.7991801011111111  
00:38:30.600 --> 00:38:33.018 And so basically we defined an  
NOTE Confidence: 0.7991801011111111  
00:38:33.018 --> 00:38:35.063 impairment in daytime alertness based  
NOTE Confidence: 0.7991801011111111  
00:38:35.063 --> 00:38:37.235 on falling in the worst quartile.  
NOTE Confidence: 0.7991801011111111  
00:38:37.240 --> 00:38:38.518 For the cohort,  
NOTE Confidence: 0.7991801011111111  
00:38:38.518 --> 00:38:40.648 for the psychomotor vigilance task.  
NOTE Confidence: 0.7991801011111111  
00:38:40.650 --> 00:38:43.450 And why use the Pvt?  
NOTE Confidence: 0.7991801011111111  
00:38:43.450 --> 00:38:45.403 It's because we think that that sort  
NOTE Confidence: 0.7991801011111111  
00:38:45.403 --> 00:38:47.537 of quality of sustained attention or  
NOTE Confidence: 0.7991801011111111  
00:38:47.537 --> 00:38:49.597 daytime alertness that you measured,  
NOTE Confidence: 0.7991801011111111  
00:38:49.600 --> 00:38:53.925 the Pvt is particularly sensitive  
NOTE Confidence: 0.7991801011111111  
00:38:53.925 --> 00:38:56.520 to deficits in.  
NOTE Confidence: 0.7991801011111111  
00:38:56.520 --> 00:38:58.648 Sleep in homeostatic sleep  
NOTE Confidence: 0.7991801011111111  
00:38:58.648 --> 00:39:00.776 or in circadian sleep.  
NOTE Confidence: 0.9546644633333333

00:39:03.510 --> 00:39:08.075 OK. So again. We're defining positive  
NOTE Confidence: 0.9546644633333333

00:39:08.075 --> 00:39:10.150 sleep discrepancy as having normal  
NOTE Confidence: 0.9546644633333333

00:39:10.150 --> 00:39:12.237 self reported scores but having a  
NOTE Confidence: 0.9546644633333333

00:39:12.237 --> 00:39:14.031 deficit in one of those domains.  
NOTE Confidence: 0.9546644633333333

00:39:14.040 --> 00:39:16.424 And So what we did is we did  
NOTE Confidence: 0.9546644633333333

00:39:16.424 --> 00:39:17.950 logistic regression basically to  
NOTE Confidence: 0.9546644633333333

00:39:17.950 --> 00:39:20.120 find the characteristics that are  
NOTE Confidence: 0.9546644633333333

00:39:20.120 --> 00:39:22.358 associated with falling in this group.  
NOTE Confidence: 0.9546644633333333

00:39:22.360 --> 00:39:24.694 And so we're really not considering  
NOTE Confidence: 0.9546644633333333

00:39:24.694 --> 00:39:26.919 these groups here where you know,  
NOTE Confidence: 0.9546644633333333

00:39:26.920 --> 00:39:29.452 yes, they have both self reported  
NOTE Confidence: 0.9546644633333333

00:39:29.452 --> 00:39:31.140 and objective sleep deficiency.  
NOTE Confidence: 0.9546644633333333

00:39:31.140 --> 00:39:33.150 We're not considering people who  
NOTE Confidence: 0.9546644633333333

00:39:33.150 --> 00:39:35.160 have self reported sleep deficiency,  
NOTE Confidence: 0.9546644633333333

00:39:35.160 --> 00:39:38.250 but you know, normal. Objective measures.  
NOTE Confidence: 0.9546644633333333

00:39:38.250 --> 00:39:39.450 We're really comparing them

NOTE Confidence: 0.9546644633333333  
00:39:39.450 --> 00:39:40.950 to the reference group here,  
NOTE Confidence: 0.9546644633333333  
00:39:40.950 --> 00:39:43.994 which is people who are, you know,  
NOTE Confidence: 0.9546644633333333  
00:39:43.994 --> 00:39:46.904 who really have normal sleep.  
NOTE Confidence: 0.9546644633333333  
00:39:46.910 --> 00:39:47.980 And so first of all,  
NOTE Confidence: 0.9546644633333333  
00:39:47.980 --> 00:39:49.130 I'll show you the prevalence.  
NOTE Confidence: 0.9546644633333333  
00:39:49.130 --> 00:39:51.860 So here we'll start with the men  
NOTE Confidence: 0.9546644633333333  
00:39:51.860 --> 00:39:54.786 and you can see you know what what  
NOTE Confidence: 0.9546644633333333  
00:39:54.786 --> 00:39:56.880 were the the prevalence of having  
NOTE Confidence: 0.9546644633333333  
00:39:56.953 --> 00:39:58.968 an abnormality in each domain.  
NOTE Confidence: 0.9546644633333333  
00:39:58.970 --> 00:40:00.152 And so overall,  
NOTE Confidence: 0.9546644633333333  
00:40:00.152 --> 00:40:02.910 of all those men who had normal  
NOTE Confidence: 0.9546644633333333  
00:40:03.003 --> 00:40:05.019 Epworth and PSQI scores,  
NOTE Confidence: 0.9546644633333333  
00:40:05.020 --> 00:40:08.964 about almost 50% of them had a deficit  
NOTE Confidence: 0.9546644633333333  
00:40:08.964 --> 00:40:13.100 in an objective sleep deficiency.  
NOTE Confidence: 0.9546644633333333  
00:40:13.100 --> 00:40:15.852 In women, fairly similar.  
NOTE Confidence: 0.9546644633333333

00:40:15.852 --> 00:40:18.875 So 46% of those women with  
NOTE Confidence: 0.9546644633333333

00:40:18.875 --> 00:40:21.210 normal Epworth and PSQI scores  
NOTE Confidence: 0.9546644633333333

00:40:21.298 --> 00:40:24.238 actually had an objective deficit.  
NOTE Confidence: 0.9546644633333333

00:40:24.240 --> 00:40:25.888 Or objective sleep deficiency.  
NOTE Confidence: 0.8731324

00:40:28.220 --> 00:40:31.372 So we then looked at, you know,  
NOTE Confidence: 0.8731324

00:40:31.372 --> 00:40:34.500 by comparing them to that normal sleep group,  
NOTE Confidence: 0.8731324

00:40:34.500 --> 00:40:36.895 we found those clinical characteristics  
NOTE Confidence: 0.8731324

00:40:36.895 --> 00:40:39.290 that were significantly associated with  
NOTE Confidence: 0.8731324

00:40:39.356 --> 00:40:41.420 having positive sleep discrepancy.  
NOTE Confidence: 0.8731324

00:40:41.420 --> 00:40:44.161 So you can see age, obesity,  
NOTE Confidence: 0.8731324

00:40:44.161 --> 00:40:48.166 napping, you can see those.  
NOTE Confidence: 0.8731324

00:40:48.170 --> 00:40:50.550 Those geriatric impairments that we  
NOTE Confidence: 0.8731324

00:40:50.550 --> 00:40:53.480 think are so important in aging.  
NOTE Confidence: 0.8731324

00:40:53.480 --> 00:40:54.695 And in women,  
NOTE Confidence: 0.8731324

00:40:54.695 --> 00:40:57.125 we found very fairly similar results.  
NOTE Confidence: 0.8731324

00:40:57.130 --> 00:40:59.896 So older age was associated with

NOTE Confidence: 0.8731324

00:40:59.896 --> 00:41:01.740 having positive sleep discrepancy,

NOTE Confidence: 0.8731324

00:41:01.740 --> 00:41:04.440 obesity and napping.

NOTE Confidence: 0.8731324

00:41:04.440 --> 00:41:06.710 Multimorbidity.

NOTE Confidence: 0.8731324

00:41:06.710 --> 00:41:08.798 And then having those geriatric syndromes

NOTE Confidence: 0.8731324

00:41:08.798 --> 00:41:11.210 and that was similar in men and women.

NOTE Confidence: 0.815074945

00:41:14.100 --> 00:41:17.140 So positive sleep discrepancy.

NOTE Confidence: 0.815074945

00:41:17.140 --> 00:41:18.660 Very common.

NOTE Confidence: 0.815074945

00:41:18.660 --> 00:41:21.355 We see it again with increasing age,

NOTE Confidence: 0.815074945

00:41:21.360 --> 00:41:23.500 with obesity, with medical comorbidity,

NOTE Confidence: 0.815074945

00:41:23.500 --> 00:41:24.466 with geriatric syndromes.

NOTE Confidence: 0.815074945

00:41:24.466 --> 00:41:26.720 And I I think this is important

NOTE Confidence: 0.815074945

00:41:26.777 --> 00:41:28.912 because I think this is a missed

NOTE Confidence: 0.815074945

00:41:28.912 --> 00:41:30.327 opportunity and we're potentially

NOTE Confidence: 0.815074945

00:41:30.327 --> 00:41:32.537 not detecting these sleep problems.

NOTE Confidence: 0.815074945

00:41:32.540 --> 00:41:34.311 And so you know that's why the

NOTE Confidence: 0.815074945

00:41:34.311 --> 00:41:36.044 focus of my work going forward  
NOTE Confidence: 0.815074945

00:41:36.044 --> 00:41:38.158 is to really say we need better  
NOTE Confidence: 0.815074945

00:41:38.220 --> 00:41:40.395 instruments to improve detection of  
NOTE Confidence: 0.815074945

00:41:40.395 --> 00:41:42.570 sleep deficiency in this population.  
NOTE Confidence: 0.815074945

00:41:42.570 --> 00:41:45.013 And so I'm just gonna finish with  
NOTE Confidence: 0.815074945

00:41:45.013 --> 00:41:47.672 one more project that I'll tell you  
NOTE Confidence: 0.815074945

00:41:47.672 --> 00:41:49.976 about and that's looking at insomnia  
NOTE Confidence: 0.815074945

00:41:50.053 --> 00:41:52.568 with objective short sleep duration,  
NOTE Confidence: 0.815074945

00:41:52.570 --> 00:41:53.610 which is, you know,  
NOTE Confidence: 0.815074945

00:41:53.610 --> 00:41:54.390 sort of interesting.  
NOTE Confidence: 0.815074945

00:41:54.390 --> 00:41:57.646 I don't think I imagined it this way,  
NOTE Confidence: 0.815074945

00:41:57.650 --> 00:42:01.115 but it really is measuring sleep in a more  
NOTE Confidence: 0.815074945

00:42:01.115 --> 00:42:03.404 comprehensive way because it's looking  
NOTE Confidence: 0.815074945

00:42:03.404 --> 00:42:05.694 across domains of sleep deficiency.  
NOTE Confidence: 0.815074945

00:42:05.700 --> 00:42:07.758 And so probably many of you know  
NOTE Confidence: 0.815074945

00:42:07.758 --> 00:42:09.774 this is being recognized more and

NOTE Confidence: 0.815074945

00:42:09.774 --> 00:42:11.904 more as a high risk phenotype.

NOTE Confidence: 0.815074945

00:42:11.910 --> 00:42:14.689 And so I'm pointing to really I

NOTE Confidence: 0.815074945

00:42:14.689 --> 00:42:16.610 think sort of seminal papers that

NOTE Confidence: 0.815074945

00:42:16.610 --> 00:42:18.680 have looked at this in younger,

NOTE Confidence: 0.815074945

00:42:18.680 --> 00:42:21.248 more middle age groups and shown

NOTE Confidence: 0.815074945

00:42:21.248 --> 00:42:24.040 that this phenotype is associated

NOTE Confidence: 0.815074945

00:42:24.040 --> 00:42:26.400 with worsening with mortality,

NOTE Confidence: 0.815074945

00:42:26.400 --> 00:42:27.604 cardiovascular disease,

NOTE Confidence: 0.815074945

00:42:27.604 --> 00:42:30.012 diabetes and even cognitive

NOTE Confidence: 0.815074945

00:42:30.012 --> 00:42:31.216 performance impairments.

NOTE Confidence: 0.815074945

00:42:31.220 --> 00:42:33.116 There's some this is somewhat controversial,

NOTE Confidence: 0.815074945

00:42:33.120 --> 00:42:35.652 but there's some evidence to suggest

NOTE Confidence: 0.815074945

00:42:35.652 --> 00:42:38.798 that this group is actually that CBT.

NOTE Confidence: 0.815074945

00:42:38.800 --> 00:42:41.968 I may be less effective in this group.

NOTE Confidence: 0.815074945

00:42:41.970 --> 00:42:44.126 And so we wanted to study this.

NOTE Confidence: 0.815074945

00:42:44.130 --> 00:42:45.285 It had previously been studied  
NOTE Confidence: 0.815074945

00:42:45.285 --> 00:42:46.209 in middle age groups.  
NOTE Confidence: 0.815074945

00:42:46.210 --> 00:42:48.674 We wanted to study this in older people.  
NOTE Confidence: 0.815074945

00:42:48.680 --> 00:42:51.110 And so here's how we did it in Mr  
NOTE Confidence: 0.815074945

00:42:51.110 --> 00:42:54.040 Ross and soft. And it was really.  
NOTE Confidence: 0.815074945

00:42:54.040 --> 00:42:57.619 Sort of replicating the way that insomnia  
NOTE Confidence: 0.815074945

00:42:57.619 --> 00:43:02.276 was identified in previous work in sleep,  
NOTE Confidence: 0.815074945

00:43:02.280 --> 00:43:03.876 heart health in middle-aged  
NOTE Confidence: 0.815074945

00:43:03.876 --> 00:43:06.270 people to look at this phenotype.  
NOTE Confidence: 0.815074945

00:43:06.270 --> 00:43:08.826 And so insomnia was based on having any of  
NOTE Confidence: 0.815074945

00:43:08.826 --> 00:43:11.530 the following at least three times a week,  
NOTE Confidence: 0.815074945

00:43:11.530 --> 00:43:13.826 trouble getting to sleep within 30 minutes,  
NOTE Confidence: 0.815074945

00:43:13.830 --> 00:43:14.856 waking up in the middle of  
NOTE Confidence: 0.815074945

00:43:14.856 --> 00:43:15.890 the night or early morning,  
NOTE Confidence: 0.815074945

00:43:15.890 --> 00:43:18.674 or taking a medication to help with sleep.  
NOTE Confidence: 0.815074945

00:43:18.680 --> 00:43:20.311 And then a sort of departure from

NOTE Confidence: 0.815074945

00:43:20.311 --> 00:43:21.859 what had been done previously,

NOTE Confidence: 0.815074945

00:43:21.860 --> 00:43:23.543 if you know this work from the Penn State

NOTE Confidence: 0.815074945

00:43:23.543 --> 00:43:24.859 cohort is sleep Heart health study,

NOTE Confidence: 0.815074945

00:43:24.860 --> 00:43:26.550 then you probably know they

NOTE Confidence: 0.815074945

00:43:26.550 --> 00:43:27.226 use polysomnography,

NOTE Confidence: 0.815074945

00:43:27.230 --> 00:43:29.870 polysomnography to define a sleep

NOTE Confidence: 0.815074945

00:43:29.870 --> 00:43:33.140 duration of less than six hours.

NOTE Confidence: 0.815074945

00:43:33.140 --> 00:43:35.740 We used actigraphy for a number of reasons,

NOTE Confidence: 0.815074945

00:43:35.740 --> 00:43:38.520 but I would say if we really want to be

NOTE Confidence: 0.815074945

00:43:38.593 --> 00:43:41.659 able to study this phenotype going forward,

NOTE Confidence: 0.815074945

00:43:41.660 --> 00:43:44.145 then doing it with polysomnography

NOTE Confidence: 0.815074945

00:43:44.145 --> 00:43:45.636 just isn't feasible.

NOTE Confidence: 0.815074945

00:43:45.640 --> 00:43:49.160 So we are using actigraphy and I think,

NOTE Confidence: 0.815074945

00:43:49.160 --> 00:43:49.532 you know,

NOTE Confidence: 0.815074945

00:43:49.532 --> 00:43:51.573 we don't have a whole lot of time to talk

NOTE Confidence: 0.815074945

00:43:51.573 --> 00:43:53.097 about the benefits and the limitations.

NOTE Confidence: 0.815074945

00:43:53.100 --> 00:43:55.068 But let's just say the benefit

NOTE Confidence: 0.815074945

00:43:55.068 --> 00:43:57.804 is that any of you who use it

NOTE Confidence: 0.815074945

00:43:57.804 --> 00:43:59.820 know man actigraphy is so easy,

NOTE Confidence: 0.815074945

00:43:59.820 --> 00:44:03.140 especially compared to polysomnography.

NOTE Confidence: 0.815074945

00:44:03.140 --> 00:44:07.154 OK, so here's what we found in the men.

NOTE Confidence: 0.815074945

00:44:07.160 --> 00:44:11.168 So if we are starting with.

NOTE Confidence: 0.815074945

00:44:11.170 --> 00:44:13.872 That sort of the 3000 people from

NOTE Confidence: 0.815074945

00:44:13.872 --> 00:44:16.349 that first sleep visit of Mr OSS,

NOTE Confidence: 0.815074945

00:44:16.350 --> 00:44:19.420 we then take out these other phenotypes.

NOTE Confidence: 0.815074945

00:44:19.420 --> 00:44:22.510 OK, so your long sleep duration,

NOTE Confidence: 0.815074945

00:44:22.510 --> 00:44:24.945 asymptomatic short sleep and your

NOTE Confidence: 0.815074945

00:44:24.945 --> 00:44:27.380 insomnia with normal sleep duration,

NOTE Confidence: 0.919821216666667

00:44:27.380 --> 00:44:29.015 OK. So I'm showing you

NOTE Confidence: 0.919821216666667

00:44:29.015 --> 00:44:30.323 the prevalence of those.

NOTE Confidence: 0.919821216666667

00:44:30.330 --> 00:44:32.328 But really what we're focusing down

NOTE Confidence: 0.919821216666667  
00:44:32.328 --> 00:44:35.220 here on is those people who had insomnia  
NOTE Confidence: 0.919821216666667  
00:44:35.220 --> 00:44:37.452 with short sleeve and those people  
NOTE Confidence: 0.919821216666667  
00:44:37.519 --> 00:44:39.823 who had normal sleep and so of that,  
NOTE Confidence: 0.919821216666667  
00:44:39.830 --> 00:44:43.550 you know, 3000. Plus. Population.  
NOTE Confidence: 0.919821216666667  
00:44:43.550 --> 00:44:45.762 About 20% of the men had insomnia  
NOTE Confidence: 0.919821216666667  
00:44:45.762 --> 00:44:47.350 with short sleep duration,  
NOTE Confidence: 0.919821216666667  
00:44:47.350 --> 00:44:48.898 so you can see fairly common,  
NOTE Confidence: 0.919821216666667  
00:44:48.900 --> 00:44:52.330 you know, a fifth of the cohort.  
NOTE Confidence: 0.919821216666667  
00:44:52.330 --> 00:44:53.886 So then in women,  
NOTE Confidence: 0.919821216666667  
00:44:53.886 --> 00:44:57.390 when we sort of separated out those groups,  
NOTE Confidence: 0.919821216666667  
00:44:57.390 --> 00:45:00.036 we can see that insomnia with short  
NOTE Confidence: 0.919821216666667  
00:45:00.036 --> 00:45:04.719 sleep duration was about 13% of women.  
NOTE Confidence: 0.919821216666667  
00:45:04.720 --> 00:45:07.204 And so now I'm going to show you what  
NOTE Confidence: 0.919821216666667  
00:45:07.204 --> 00:45:09.764 happens when we compare insomnia with short  
NOTE Confidence: 0.919821216666667  
00:45:09.764 --> 00:45:12.410 sleep duration to people with normal sleep.  
NOTE Confidence: 0.919821216666667

00:45:12.410 --> 00:45:14.288 And this is a busy slide,  
NOTE Confidence: 0.919821216666667

00:45:14.290 --> 00:45:16.153 but I'm going to sort of break it down  
NOTE Confidence: 0.919821216666667

00:45:16.153 --> 00:45:17.947 for you to make it more digestible.  
NOTE Confidence: 0.919821216666667

00:45:17.950 --> 00:45:19.950 We have our men here, our normal  
NOTE Confidence: 0.919821216666667

00:45:19.950 --> 00:45:22.050 sleepers versus insomnia with short sleep,  
NOTE Confidence: 0.919821216666667

00:45:22.050 --> 00:45:23.975 and our women here are normal sleep  
NOTE Confidence: 0.919821216666667

00:45:23.975 --> 00:45:25.449 versus insomnia with short sleep.  
NOTE Confidence: 0.919821216666667

00:45:25.450 --> 00:45:27.866 And what you'll see is across the board,  
NOTE Confidence: 0.919821216666667

00:45:27.870 --> 00:45:30.080 people with insomnia and short  
NOTE Confidence: 0.919821216666667

00:45:30.080 --> 00:45:32.290 sleeve have more health conditions,  
NOTE Confidence: 0.919821216666667

00:45:32.290 --> 00:45:34.669 more depression, anxiety,  
NOTE Confidence: 0.919821216666667

00:45:34.669 --> 00:45:37.048 more sleep disorders.  
NOTE Confidence: 0.919821216666667

00:45:37.050 --> 00:45:38.690 They have more medication,  
NOTE Confidence: 0.919821216666667

00:45:38.690 --> 00:45:40.740 so they're more likely to  
NOTE Confidence: 0.919821216666667

00:45:40.740 --> 00:45:42.400 use antidepressants.  
NOTE Confidence: 0.919821216666667

00:45:42.400 --> 00:45:44.260 Activating medications, CNS,

NOTE Confidence: 0.919821216666667  
00:45:44.260 --> 00:45:46.120 CNS, active medications.  
NOTE Confidence: 0.919821216666667  
00:45:46.120 --> 00:45:48.455 They're more likely to have  
NOTE Confidence: 0.919821216666667  
00:45:48.455 --> 00:45:50.323 those psychosocial and behavioral  
NOTE Confidence: 0.919821216666667  
00:45:50.323 --> 00:45:52.348 factors that can impact sleep.  
NOTE Confidence: 0.919821216666667  
00:45:52.350 --> 00:45:54.600 Like living alone and and napping  
NOTE Confidence: 0.919821216666667  
00:45:54.600 --> 00:45:56.647 and they're more likely to  
NOTE Confidence: 0.919821216666667  
00:45:56.647 --> 00:45:58.078 have geriatric conditions.  
NOTE Confidence: 0.919821216666667  
00:45:58.080 --> 00:45:58.716 And again,  
NOTE Confidence: 0.919821216666667  
00:45:58.716 --> 00:46:01.260 here's another slide with a lot of numbers,  
NOTE Confidence: 0.919821216666667  
00:46:01.260 --> 00:46:02.022 but the,  
NOTE Confidence: 0.919821216666667  
00:46:02.022 --> 00:46:05.070 what I'm really just trying to show you  
NOTE Confidence: 0.919821216666667  
00:46:05.157 --> 00:46:08.013 here is that when we adjust for age,  
NOTE Confidence: 0.919821216666667  
00:46:08.020 --> 00:46:10.540 race, ethnicity, education,  
NOTE Confidence: 0.919821216666667  
00:46:10.540 --> 00:46:13.060 obesity and multimorbidity,  
NOTE Confidence: 0.919821216666667  
00:46:13.060 --> 00:46:15.268 those relationships are maintained.  
NOTE Confidence: 0.919821216666667

00:46:15.268 --> 00:46:18.416 So they are robust to adjusting  
NOTE Confidence: 0.919821216666667

00:46:18.416 --> 00:46:20.756 for all of those things.  
NOTE Confidence: 0.919821216666667

00:46:20.760 --> 00:46:23.325 So we see in both men and women that  
NOTE Confidence: 0.919821216666667

00:46:23.325 --> 00:46:25.475 those with insomnia and short sleep  
NOTE Confidence: 0.919821216666667

00:46:25.475 --> 00:46:28.229 are much more likely to have obesity.  
NOTE Confidence: 0.919821216666667

00:46:28.230 --> 00:46:29.288 Multimorbidity.  
NOTE Confidence: 0.919821216666667

00:46:29.288 --> 00:46:31.404 Cognitive problems,  
NOTE Confidence: 0.919821216666667

00:46:31.404 --> 00:46:35.413 depressive issues and geriatric impairments,  
NOTE Confidence: 0.919821216666667

00:46:35.413 --> 00:46:39.199 and so I think you know.  
NOTE Confidence: 0.919821216666667

00:46:39.200 --> 00:46:40.156 This really.  
NOTE Confidence: 0.919821216666667

00:46:40.156 --> 00:46:43.980 This is a group with high medical burden.  
NOTE Confidence: 0.919821216666667

00:46:43.980 --> 00:46:46.598 I'm probably at risk for adverse outcomes.  
NOTE Confidence: 0.919821216666667

00:46:46.600 --> 00:46:48.536 That's some work that needs to be done,  
NOTE Confidence: 0.919821216666667

00:46:48.540 --> 00:46:50.843 but I think it also shows the  
NOTE Confidence: 0.919821216666667

00:46:50.843 --> 00:46:53.080 benefit of taking the sort of  
NOTE Confidence: 0.919821216666667

00:46:53.080 --> 00:46:54.648 multifaceted approach of defining

NOTE Confidence: 0.919821216666667  
00:46:54.648 --> 00:46:57.509 sleep in a more comprehensive way.  
NOTE Confidence: 0.889543784444444  
00:46:59.540 --> 00:47:01.886 And so I'll I'll end them  
NOTE Confidence: 0.889543784444444  
00:47:01.886 --> 00:47:03.059 with future directions,  
NOTE Confidence: 0.889543784444444  
00:47:03.060 --> 00:47:06.434 which is the focus of my K award in  
NOTE Confidence: 0.889543784444444  
00:47:06.434 --> 00:47:09.278 trying to define sleep deficiency by  
NOTE Confidence: 0.889543784444444  
00:47:09.278 --> 00:47:12.789 measuring each of these different domains.  
NOTE Confidence: 0.889543784444444  
00:47:12.790 --> 00:47:17.278 And so I am doing home based polysomnography.  
NOTE Confidence: 0.889543784444444  
00:47:17.280 --> 00:47:18.728 That's the gold standard,  
NOTE Confidence: 0.889543784444444  
00:47:18.728 --> 00:47:22.293 but I'm also trying to see whether an EEG  
NOTE Confidence: 0.889543784444444  
00:47:22.293 --> 00:47:24.927 measuring headband might be sufficient to  
NOTE Confidence: 0.889543784444444  
00:47:24.927 --> 00:47:27.739 define sleep quality in this population.  
NOTE Confidence: 0.889543784444444  
00:47:27.740 --> 00:47:31.277 I'm using Actigraphy to try to get at that  
NOTE Confidence: 0.889543784444444  
00:47:31.277 --> 00:47:34.160 domain of inappropriate sleep timing.  
NOTE Confidence: 0.889543784444444  
00:47:34.160 --> 00:47:37.346 And so right now I'm really in the the  
NOTE Confidence: 0.889543784444444  
00:47:37.346 --> 00:47:40.680 first couple phases of the work which are,  
NOTE Confidence: 0.889543784444444

00:47:40.680 --> 00:47:42.056 you know, quantitative phase,  
NOTE Confidence: 0.889543784444444

00:47:42.056 --> 00:47:43.776 where I'm really comparing self  
NOTE Confidence: 0.889543784444444

00:47:43.776 --> 00:47:45.367 reported and objective measures of  
NOTE Confidence: 0.889543784444444

00:47:45.367 --> 00:47:47.161 sleep deficiency in this age group.  
NOTE Confidence: 0.889543784444444

00:47:47.170 --> 00:47:49.660 And then I'm also starting to  
NOTE Confidence: 0.889543784444444

00:47:49.660 --> 00:47:51.320 do qualitative interviews where  
NOTE Confidence: 0.889543784444444

00:47:51.397 --> 00:47:53.507 I'm exploring how these people.  
NOTE Confidence: 0.889543784444444

00:47:53.510 --> 00:47:55.185 Describe their sleep and their  
NOTE Confidence: 0.889543784444444

00:47:55.185 --> 00:47:57.524 impairments during the day to to try  
NOTE Confidence: 0.889543784444444

00:47:57.524 --> 00:47:59.024 and determine whether there might  
NOTE Confidence: 0.889543784444444

00:47:59.024 --> 00:48:03.128 be better ways to assess that with.  
NOTE Confidence: 0.889543784444444

00:48:03.130 --> 00:48:05.550 With with self reported measures  
NOTE Confidence: 0.889543784444444

00:48:05.550 --> 00:48:07.970 and hopefully ultimately to define  
NOTE Confidence: 0.889543784444444

00:48:08.046 --> 00:48:10.602 or develop a new sleep deficiency  
NOTE Confidence: 0.889543784444444

00:48:10.602 --> 00:48:13.307 instrument to detect this and older  
NOTE Confidence: 0.889543784444444

00:48:13.307 --> 00:48:16.079 people that's really sort of specifically

NOTE Confidence: 0.889543784444444  
00:48:16.079 --> 00:48:18.670 designed for use in older people.  
NOTE Confidence: 0.889543784444444  
00:48:18.670 --> 00:48:21.530 So that's the focus of my OK,  
NOTE Confidence: 0.889543784444444  
00:48:21.530 --> 00:48:24.032 that's what I'm in the thick of right now  
NOTE Confidence: 0.889543784444444  
00:48:24.040 --> 00:48:27.703 and so I'll just end with some key points.  
NOTE Confidence: 0.889543784444444  
00:48:27.710 --> 00:48:29.830 Sleep deficiency is a global  
NOTE Confidence: 0.889543784444444  
00:48:29.830 --> 00:48:31.102 construct capturing deficits  
NOTE Confidence: 0.889543784444444  
00:48:31.102 --> 00:48:33.369 arising due to poor sleep quality,  
NOTE Confidence: 0.889543784444444  
00:48:33.370 --> 00:48:35.590 insufficient duration and  
NOTE Confidence: 0.889543784444444  
00:48:35.590 --> 00:48:37.810 or inappropriate timing.  
NOTE Confidence: 0.889543784444444  
00:48:37.810 --> 00:48:40.320 This sleep deficiency in older  
NOTE Confidence: 0.889543784444444  
00:48:40.320 --> 00:48:42.328 adults is multi factorial.  
NOTE Confidence: 0.889543784444444  
00:48:42.330 --> 00:48:43.950 Self reporting instruments alone  
NOTE Confidence: 0.889543784444444  
00:48:43.950 --> 00:48:46.380 may not be sufficient to describe  
NOTE Confidence: 0.889543784444444  
00:48:46.442 --> 00:48:48.157 this entity in older adults.  
NOTE Confidence: 0.889543784444444  
00:48:48.160 --> 00:48:50.695 Future work should incorporate measures  
NOTE Confidence: 0.889543784444444

00:48:50.695 --> 00:48:53.230 to that evaluate sleep comprehensively.  
NOTE Confidence: 0.889543784444444

00:48:53.230 --> 00:48:55.786 So that is all I have and then I'll  
NOTE Confidence: 0.889543784444444

00:48:55.786 --> 00:48:58.503 end with the thank yous again and sort  
NOTE Confidence: 0.889543784444444

00:48:58.503 --> 00:49:00.984 of point to all of these wonderful  
NOTE Confidence: 0.889543784444444

00:49:00.984 --> 00:49:03.854 people that I get to work with and  
NOTE Confidence: 0.889543784444444

00:49:03.854 --> 00:49:06.146 sleep in geriatrics here at Yale.  
NOTE Confidence: 0.72020066

00:49:13.040 --> 00:49:15.513 Great. Uh, thank you.  
NOTE Confidence: 0.72020066

00:49:15.513 --> 00:49:18.580 Brianne was a great talk, a  
NOTE Confidence: 0.779873142222222

00:49:18.580 --> 00:49:19.832 lot of interesting information,  
NOTE Confidence: 0.779873142222222

00:49:19.832 --> 00:49:21.397 a lot of broke information.  
NOTE Confidence: 0.779873142222222

00:49:21.400 --> 00:49:24.208 So I think we have a couple of  
NOTE Confidence: 0.779873142222222

00:49:24.208 --> 00:49:26.894 comments and questions in the chat  
NOTE Confidence: 0.779873142222222

00:49:26.894 --> 00:49:29.738 and we'll start with John Winkleman.  
NOTE Confidence: 0.779873142222222

00:49:29.740 --> 00:49:32.169 And so it John mentions that you've  
NOTE Confidence: 0.779873142222222

00:49:32.169 --> 00:49:34.020 shown us cross-sectional associations,  
NOTE Confidence: 0.779873142222222

00:49:34.020 --> 00:49:36.280 Mr Oz has longitudinal data.

NOTE Confidence: 0.779873142222222

00:49:36.280 --> 00:49:38.032 Have you examined your group of

NOTE Confidence: 0.779873142222222

00:49:38.032 --> 00:49:39.750 interest for long term outcomes?

NOTE Confidence: 0.85093077125

00:49:39.880 --> 00:49:42.144 Yeah, so that's what we're working on now.

NOTE Confidence: 0.90772153

00:49:43.940 --> 00:49:48.302 Great, great. And then Robert Thomas

NOTE Confidence: 0.90772153

00:49:48.302 --> 00:49:51.350 has a question and a statement.

NOTE Confidence: 0.90772153

00:49:51.350 --> 00:49:54.140 Intervention plea is exclamation point.

NOTE Confidence: 0.90772153

00:49:54.140 --> 00:49:56.260 So the description is good.

NOTE Confidence: 0.90772153

00:49:56.260 --> 00:49:58.186 But there's no mystery that elderly

NOTE Confidence: 0.90772153

00:49:58.186 --> 00:49:59.470 have multifaceted sleep loss.

NOTE Confidence: 0.90772153

00:49:59.470 --> 00:50:01.269 And So what is the pragmatic approach

NOTE Confidence: 0.90772153

00:50:01.269 --> 00:50:03.147 to change the sleep in the elderly?

NOTE Confidence: 0.905392616

00:50:04.440 --> 00:50:07.640 So yeah, I mean. First,

NOTE Confidence: 0.905392616

00:50:07.640 --> 00:50:09.090 there's no easy answer here,

NOTE Confidence: 0.905392616

00:50:09.090 --> 00:50:11.808 and I'm probably.

NOTE Confidence: 0.905392616

00:50:11.810 --> 00:50:13.730 Not telling you something you don't

NOTE Confidence: 0.905392616

00:50:13.730 --> 00:50:17.290 know already, but I think what I,  
NOTE Confidence: 0.905392616

00:50:17.290 --> 00:50:19.665 what I commonly experience is  
NOTE Confidence: 0.905392616

00:50:19.665 --> 00:50:22.629 that when these people come to me,  
NOTE Confidence: 0.905392616

00:50:22.630 --> 00:50:24.597 you know, they've just been on benzos  
NOTE Confidence: 0.905392616

00:50:24.597 --> 00:50:26.592 or see drugs forever and they've  
NOTE Confidence: 0.905392616

00:50:26.592 --> 00:50:28.417 never had their sleep evaluated.  
NOTE Confidence: 0.905392616

00:50:28.420 --> 00:50:31.024 And so I think definitely having  
NOTE Confidence: 0.905392616

00:50:31.024 --> 00:50:34.130 a very good history and work up  
NOTE Confidence: 0.905392616

00:50:34.130 --> 00:50:36.270 is important in these people.  
NOTE Confidence: 0.905392616

00:50:36.270 --> 00:50:38.804 And I would say I think there's,  
NOTE Confidence: 0.905392616

00:50:38.810 --> 00:50:40.630 you know, because there are so many  
NOTE Confidence: 0.905392616

00:50:40.630 --> 00:50:42.507 different things that can affect their sleep.  
NOTE Confidence: 0.905392616

00:50:42.510 --> 00:50:44.330 But there's a lot of.  
NOTE Confidence: 0.905392616

00:50:44.330 --> 00:50:46.066 Different things so we can intervene on.  
NOTE Confidence: 0.905392616

00:50:46.070 --> 00:50:48.021 You know, I mentioned medications, right?  
NOTE Confidence: 0.905392616

00:50:48.021 --> 00:50:49.876 So that's definitely something we

NOTE Confidence: 0.905392616

00:50:49.876 --> 00:50:52.249 can change to make sleep better.

NOTE Confidence: 0.905392616

00:50:52.250 --> 00:50:54.418 I think we could probably do a better

NOTE Confidence: 0.905392616

00:50:54.418 --> 00:50:56.349 job of identifying and treating

NOTE Confidence: 0.905392616

00:50:56.349 --> 00:50:58.549 sleep disorders in these people.

NOTE Confidence: 0.905392616

00:50:58.550 --> 00:50:59.213 So, you know,

NOTE Confidence: 0.905392616

00:50:59.213 --> 00:51:01.150 I I think we have to start there.

NOTE Confidence: 0.905392616

00:51:01.150 --> 00:51:04.786 I mean I'm very the reason.

NOTE Confidence: 0.905392616

00:51:04.790 --> 00:51:06.764 Would I have wanted jump to interventions?

NOTE Confidence: 0.905392616

00:51:06.770 --> 00:51:07.021 Yes.

NOTE Confidence: 0.905392616

00:51:07.021 --> 00:51:09.280 But I I do think that we need better

NOTE Confidence: 0.905392616

00:51:09.348 --> 00:51:11.676 tools before we jump to interventions.

NOTE Confidence: 0.905392616

00:51:11.680 --> 00:51:12.820 And So what I hope is,

NOTE Confidence: 0.905392616

00:51:12.820 --> 00:51:13.642 you know,

NOTE Confidence: 0.905392616

00:51:13.642 --> 00:51:16.108 maybe the future is like a

NOTE Confidence: 0.905392616

00:51:16.108 --> 00:51:17.604 deprescribing intervention to see

NOTE Confidence: 0.905392616

00:51:17.604 --> 00:51:19.704 how that helps sleep or to really  
NOTE Confidence: 0.905392616

00:51:19.704 --> 00:51:21.919 think about what are we doing to  
NOTE Confidence: 0.905392616

00:51:21.919 --> 00:51:23.946 these people when in their sleep,  
NOTE Confidence: 0.905392616

00:51:23.946 --> 00:51:26.334 when we give them things like  
NOTE Confidence: 0.905392616

00:51:26.334 --> 00:51:27.724 antipsychotics or, you know,  
NOTE Confidence: 0.905392616

00:51:27.724 --> 00:51:29.209 because I think that's something  
NOTE Confidence: 0.905392616

00:51:29.209 --> 00:51:29.803 in geriatrics,  
NOTE Confidence: 0.905392616

00:51:29.810 --> 00:51:32.110 they are used very frequently  
NOTE Confidence: 0.905392616

00:51:32.110 --> 00:51:34.078 off labeled to help with sleep.  
NOTE Confidence: 0.905392616

00:51:34.078 --> 00:51:35.650 But what are we actually doing  
NOTE Confidence: 0.905392616

00:51:35.709 --> 00:51:36.549 to these people?  
NOTE Confidence: 0.905392616

00:51:36.550 --> 00:51:38.125 And so I think we need better  
NOTE Confidence: 0.905392616

00:51:38.125 --> 00:51:39.310 tools to figure that out.  
NOTE Confidence: 0.790083175

00:51:42.790 --> 00:51:44.790 Great. Thank you, Brianne.  
NOTE Confidence: 0.790083175

00:51:44.790 --> 00:51:47.118 So I I'll ask a oh,  
NOTE Confidence: 0.790083175

00:51:47.120 --> 00:51:49.590 here's another question from John.

NOTE Confidence: 0.790083175

00:51:49.590 --> 00:51:51.282 How did your patient do when

NOTE Confidence: 0.790083175

00:51:51.282 --> 00:51:52.790 treated for their sleep apnea?

NOTE Confidence: 0.790083175

00:51:52.790 --> 00:51:53.330 Great question.

NOTE Confidence: 0.768940830714286

00:51:53.340 --> 00:51:54.964 Actually did great. She was one of

NOTE Confidence: 0.768940830714286

00:51:54.964 --> 00:51:56.439 those people who just took to it.

NOTE Confidence: 0.768940830714286

00:51:56.440 --> 00:52:01.268 There's no problem. So, I mean,

NOTE Confidence: 0.768940830714286

00:52:01.268 --> 00:52:03.060 maybe you could maybe you sort of look

NOTE Confidence: 0.768940830714286

00:52:03.110 --> 00:52:04.925 at her home sleep test and say, oh,

NOTE Confidence: 0.768940830714286

00:52:04.925 --> 00:52:06.990 she's just got apneas and, you know,

NOTE Confidence: 0.768940830714286

00:52:06.990 --> 00:52:09.640 maybe she just needs to open up her airway.

NOTE Confidence: 0.768940830714286

00:52:09.640 --> 00:52:13.296 I don't know. She she did very well.

NOTE Confidence: 0.768940830714286

00:52:13.300 --> 00:52:15.148 But I don't think that I'm

NOTE Confidence: 0.768940830714286

00:52:15.148 --> 00:52:16.695 particularly good at figuring out

NOTE Confidence: 0.768940830714286

00:52:16.695 --> 00:52:18.473 who those people are going to be.

NOTE Confidence: 0.768940830714286

00:52:18.480 --> 00:52:21.728 I I just think that in my population

NOTE Confidence: 0.768940830714286

00:52:21.728 --> 00:52:24.392 they all deserve a chance because,  
NOTE Confidence: 0.768940830714286

00:52:24.392 --> 00:52:26.576 you know, for a lot of them,  
NOTE Confidence: 0.768940830714286

00:52:26.580 --> 00:52:28.800 cognition is a priority. Right.  
NOTE Confidence: 0.768940830714286

00:52:28.800 --> 00:52:30.318 And there's not a lot else  
NOTE Confidence: 0.768940830714286

00:52:30.318 --> 00:52:32.380 we can do to help cognition.  
NOTE Confidence: 0.768940830714286

00:52:32.380 --> 00:52:35.076 So if we can find a sleep disorder  
NOTE Confidence: 0.768940830714286

00:52:35.076 --> 00:52:37.258 like sleep apnea and treat it,  
NOTE Confidence: 0.768940830714286

00:52:37.260 --> 00:52:38.898 even though we know the treatment  
NOTE Confidence: 0.768940830714286

00:52:38.898 --> 00:52:39.717 can be hard,  
NOTE Confidence: 0.768940830714286

00:52:39.720 --> 00:52:42.096 I think a lot of them are willing to,  
NOTE Confidence: 0.768940830714286

00:52:42.100 --> 00:52:42.734 you know,  
NOTE Confidence: 0.768940830714286

00:52:42.734 --> 00:52:46.103 to do the work because that is a that is  
NOTE Confidence: 0.768940830714286

00:52:46.103 --> 00:52:48.198 an important patient centered outcome.  
NOTE Confidence: 0.804093792142857

00:52:49.840 --> 00:52:52.270 So Brian, I wanted to ask you a question  
NOTE Confidence: 0.804093792142857

00:52:52.270 --> 00:52:54.547 about defining adequate sleep duration.  
NOTE Confidence: 0.804093792142857

00:52:54.550 --> 00:52:58.046 I think one of the papers you had.

NOTE Confidence: 0.804093792142857  
00:52:58.050 --> 00:53:01.641 Mentioned was a paper from Wallace and  
NOTE Confidence: 0.804093792142857  
00:53:01.641 --> 00:53:04.572 Sleep noting the situation was defined based  
NOTE Confidence: 0.804093792142857  
00:53:04.572 --> 00:53:06.840 on cardiovascular outcomes or et cetera.  
NOTE Confidence: 0.804093792142857  
00:53:06.840 --> 00:53:09.864 Yeah. And so. You know,  
NOTE Confidence: 0.804093792142857  
00:53:09.864 --> 00:53:11.136 it seems like based on your  
NOTE Confidence: 0.804093792142857  
00:53:11.136 --> 00:53:12.369 description for geriatric approach,  
NOTE Confidence: 0.804093792142857  
00:53:12.370 --> 00:53:13.483 you know we got to be looking  
NOTE Confidence: 0.804093792142857  
00:53:13.483 --> 00:53:14.529 at things other than mortality,  
NOTE Confidence: 0.804093792142857  
00:53:14.530 --> 00:53:16.770 we got to be looking at function  
NOTE Confidence: 0.804093792142857  
00:53:16.770 --> 00:53:18.099 and institutionalization and so on.  
NOTE Confidence: 0.804093792142857  
00:53:18.100 --> 00:53:20.354 And so do we have data on  
NOTE Confidence: 0.804093792142857  
00:53:20.354 --> 00:53:21.860 well functioning older adults,  
NOTE Confidence: 0.804093792142857  
00:53:21.860 --> 00:53:23.090 men and women and conversely  
NOTE Confidence: 0.804093792142857  
00:53:23.090 --> 00:53:24.620 you know those who are poor,  
NOTE Confidence: 0.804093792142857  
00:53:24.620 --> 00:53:26.515 poorly functional to anchor this  
NOTE Confidence: 0.804093792142857

00:53:26.515 --> 00:53:28.410 definition of short sleep duration  
NOTE Confidence: 0.804093792142857

00:53:28.473 --> 00:53:30.198 versus long sleep duration rather  
NOTE Confidence: 0.804093792142857

00:53:30.198 --> 00:53:31.923 than looking at things like  
NOTE Confidence: 0.804093792142857

00:53:31.987 --> 00:53:33.967 mortality or incidence of diabetes.  
NOTE Confidence: 0.633109066714286

00:53:33.980 --> 00:53:36.644 I mean you know again it's I sort of  
NOTE Confidence: 0.633109066714286

00:53:36.644 --> 00:53:39.307 I'm not particularly interested in.  
NOTE Confidence: 0.633109066714286

00:53:39.310 --> 00:53:41.242 Those outcomes when I'm trying to think  
NOTE Confidence: 0.633109066714286

00:53:41.242 --> 00:53:43.769 about what I want to do to help my patients,  
NOTE Confidence: 0.633109066714286

00:53:43.770 --> 00:53:45.303 but I'm sort of using it as  
NOTE Confidence: 0.633109066714286

00:53:45.303 --> 00:53:46.570 a benchmark to say, alright,  
NOTE Confidence: 0.633109066714286

00:53:46.570 --> 00:53:49.290 can we all agree that if sleep duration,  
NOTE Confidence: 0.633109066714286

00:53:49.290 --> 00:53:51.155 this sleep duration is associated  
NOTE Confidence: 0.633109066714286

00:53:51.155 --> 00:53:53.020 with mortality in older people  
NOTE Confidence: 0.633109066714286

00:53:53.085 --> 00:53:55.069 that this is a good way to define?  
NOTE Confidence: 0.633109066714286

00:53:55.070 --> 00:53:58.760 You know, poor sleep duration.  
NOTE Confidence: 0.633109066714286

00:53:58.760 --> 00:54:02.524 So. So I I see your point. I'm,

NOTE Confidence: 0.633109066714286  
00:54:02.524 --> 00:54:05.980 I'm kind of just using it as a benchmark,  
NOTE Confidence: 0.633109066714286  
00:54:05.980 --> 00:54:09.550 but you know, I do think.  
NOTE Confidence: 0.633109066714286  
00:54:09.550 --> 00:54:12.270 I mean and you probably know this just  
NOTE Confidence: 0.633109066714286  
00:54:12.270 --> 00:54:15.456 as well as I do that there are if you  
NOTE Confidence: 0.633109066714286  
00:54:15.456 --> 00:54:18.069 think about you know treatment of OSA,  
NOTE Confidence: 0.633109066714286  
00:54:18.070 --> 00:54:20.194 you know maybe there are certain  
NOTE Confidence: 0.633109066714286  
00:54:20.194 --> 00:54:21.256 outcomes where we're,  
NOTE Confidence: 0.633109066714286  
00:54:21.260 --> 00:54:22.470 we're not meeting the metric,  
NOTE Confidence: 0.633109066714286  
00:54:22.470 --> 00:54:24.300 but there are other things that  
NOTE Confidence: 0.633109066714286  
00:54:24.300 --> 00:54:25.852 are more patient centered and  
NOTE Confidence: 0.633109066714286  
00:54:25.852 --> 00:54:27.520 more having to do with symptoms  
NOTE Confidence: 0.633109066714286  
00:54:27.520 --> 00:54:29.319 where where CPAP does help people.  
NOTE Confidence: 0.798743980952381  
00:54:29.860 --> 00:54:32.338 Just wondering if there is a cohort  
NOTE Confidence: 0.798743980952381  
00:54:32.338 --> 00:54:34.922 of people that is like really well  
NOTE Confidence: 0.798743980952381  
00:54:34.922 --> 00:54:37.088 off and healthy aging Agers and  
NOTE Confidence: 0.798743980952381

00:54:37.167 --> 00:54:38.840 you look at their sleep to define.  
NOTE Confidence: 0.803964106666667

00:54:39.640 --> 00:54:42.178 There are people studying like the,  
NOTE Confidence: 0.803964106666667

00:54:42.180 --> 00:54:44.736 you know, sent to gennario ANS  
NOTE Confidence: 0.803964106666667

00:54:44.740 --> 00:54:46.540 and people who are just just,  
NOTE Confidence: 0.803964106666667

00:54:46.540 --> 00:54:48.190 you know, genetically they come for  
NOTE Confidence: 0.803964106666667

00:54:48.190 --> 00:54:49.908 this stuff from the stock where  
NOTE Confidence: 0.803964106666667

00:54:49.908 --> 00:54:51.594 everybody lives to like past 100.  
NOTE Confidence: 0.803964106666667

00:54:51.600 --> 00:54:53.756 So there are people studying those groups,  
NOTE Confidence: 0.803964106666667

00:54:53.760 --> 00:54:55.812 but I don't know that anybody  
NOTE Confidence: 0.803964106666667

00:54:55.812 --> 00:54:57.180 is studying their sleep.  
NOTE Confidence: 0.803964106666667

00:54:57.180 --> 00:54:58.708 It's an interesting idea.  
NOTE Confidence: 0.757147598181818

00:54:59.990 --> 00:55:01.505 So there's another question in  
NOTE Confidence: 0.757147598181818

00:55:01.505 --> 00:55:03.480 the chat and from John Cronin.  
NOTE Confidence: 0.757147598181818

00:55:03.480 --> 00:55:05.142 Do you have any experience using  
NOTE Confidence: 0.757147598181818

00:55:05.142 --> 00:55:06.250 promise fatigue or promise  
NOTE Confidence: 0.757147598181818

00:55:06.302 --> 00:55:07.757 sleep disturbance in your work?

NOTE Confidence: 0.757147598181818  
00:55:07.760 --> 00:55:09.965 And any thoughts on their  
NOTE Confidence: 0.757147598181818  
00:55:09.965 --> 00:55:12.619 value compared to ESS or I I,  
NOTE Confidence: 0.757147598181818  
00:55:12.620 --> 00:55:19.190 for example, yeah. I have not.  
NOTE Confidence: 0.886436295714286  
00:55:19.190 --> 00:55:21.606 I, you know, I'm familiar with those and  
NOTE Confidence: 0.886436295714286  
00:55:21.606 --> 00:55:26.050 I have certainly looked at them. Umm.  
NOTE Confidence: 0.886436295714286  
00:55:26.050 --> 00:55:29.186 I don't have a sense that they're better  
NOTE Confidence: 0.886436295714286  
00:55:29.186 --> 00:55:31.794 or worse than what we have already.  
NOTE Confidence: 0.886436295714286  
00:55:31.794 --> 00:55:34.718 I mean, I I think.  
NOTE Confidence: 0.886436295714286  
00:55:34.720 --> 00:55:37.088 You, you you just have to be sort  
NOTE Confidence: 0.886436295714286  
00:55:37.088 --> 00:55:38.986 of judicious in what you're asking  
NOTE Confidence: 0.886436295714286  
00:55:38.986 --> 00:55:41.444 people in your study to do which is  
NOTE Confidence: 0.886436295714286  
00:55:41.444 --> 00:55:43.136 why I'm not also collecting those  
NOTE Confidence: 0.886436295714286  
00:55:43.136 --> 00:55:44.676 measures currently because I think  
NOTE Confidence: 0.886436295714286  
00:55:44.676 --> 00:55:46.619 you know you probably want to do,  
NOTE Confidence: 0.886436295714286  
00:55:46.620 --> 00:55:49.636 you have to do fatigue and then promise  
NOTE Confidence: 0.886436295714286

00:55:49.636 --> 00:55:52.304 has two different in addition to fatigue,  
NOTE Confidence: 0.886436295714286

00:55:52.304 --> 00:55:54.253 it's the sleep disturbance and I can't  
NOTE Confidence: 0.886436295714286

00:55:54.253 --> 00:55:56.149 remember the other one and so it just  
NOTE Confidence: 0.886436295714286

00:55:56.149 --> 00:55:57.817 ends up being a lot of questions.  
NOTE Confidence: 0.886436295714286

00:55:57.820 --> 00:55:58.816 And so you know,  
NOTE Confidence: 0.886436295714286

00:55:58.816 --> 00:56:00.939 I think if you really wanted to focus  
NOTE Confidence: 0.886436295714286

00:56:00.939 --> 00:56:02.920 on promise you'd probably do those and  
NOTE Confidence: 0.886436295714286

00:56:02.920 --> 00:56:04.979 you wouldn't collect anything else.  
NOTE Confidence: 0.886436295714286

00:56:04.980 --> 00:56:06.310 Or you'd be very limited in what  
NOTE Confidence: 0.886436295714286

00:56:06.310 --> 00:56:07.250 else you could collect.  
NOTE Confidence: 0.894929631111111

00:56:09.500 --> 00:56:12.140 Sounds good maybe one last question  
NOTE Confidence: 0.894929631111111

00:56:12.140 --> 00:56:14.831 from Robert Thomas you've you've you're  
NOTE Confidence: 0.894929631111111

00:56:14.831 --> 00:56:17.573 using things like Knox Self applied  
NOTE Confidence: 0.894929631111111

00:56:17.573 --> 00:56:20.700 system and the and the band and so  
NOTE Confidence: 0.894929631111111

00:56:20.700 --> 00:56:22.788 Doctor Thomas wondering what about  
NOTE Confidence: 0.894929631111111

00:56:22.788 --> 00:56:25.271 other wearable track to track sleep

NOTE Confidence: 0.894929631111111

00:56:25.271 --> 00:56:28.440 such as the aura ring or circle ring

NOTE Confidence: 0.894929631111111

00:56:28.440 --> 00:56:31.527 or whatever whatever other ring or or.

NOTE Confidence: 0.894929631111111

00:56:31.530 --> 00:56:32.830 Watch the people use.

NOTE Confidence: 0.626166218

00:56:32.960 --> 00:56:37.058 Yeah. So, um, I think, you know,

NOTE Confidence: 0.626166218

00:56:37.058 --> 00:56:38.374 I'm not particularly wedded

NOTE Confidence: 0.626166218

00:56:38.374 --> 00:56:40.460 to one kind of technology.

NOTE Confidence: 0.626166218

00:56:40.460 --> 00:56:42.344 I just want to use technology

NOTE Confidence: 0.626166218

00:56:42.344 --> 00:56:44.250 that's sort of more feasible.

NOTE Confidence: 0.886612731111111

00:56:46.610 --> 00:56:48.626 I can't say off the top of my head,

NOTE Confidence: 0.886612731111111

00:56:48.630 --> 00:56:50.646 you know, the reason I went with the

NOTE Confidence: 0.886612731111111

00:56:50.646 --> 00:56:52.826 headband is because you can get EG with it.

NOTE Confidence: 0.886612731111111

00:56:52.830 --> 00:56:54.720 So I'm not as familiar with the

NOTE Confidence: 0.886612731111111

00:56:54.720 --> 00:56:56.682 ring and what it does, you know,

NOTE Confidence: 0.886612731111111

00:56:56.682 --> 00:56:57.906 as opposed to actigraphy

NOTE Confidence: 0.886612731111111

00:56:57.906 --> 00:56:59.670 or as opposed to doesn't.

NOTE Confidence: 0.886612731111111

00:56:59.670 --> 00:57:00.694 I mean, it doesn't.  
NOTE Confidence: 0.8866127311111111

00:57:00.694 --> 00:57:02.632 How how good is the the sleep  
NOTE Confidence: 0.8866127311111111

00:57:02.632 --> 00:57:05.026 architecture that you get from the rain?  
NOTE Confidence: 0.7120209

00:57:09.910 --> 00:57:10.910 I don't know, robertino.  
NOTE Confidence: 0.888354556

00:57:14.490 --> 00:57:18.430 Well, depends on what technology.  
NOTE Confidence: 0.888354556

00:57:18.430 --> 00:57:21.900 It is clear that you don't get the EEG, but.  
NOTE Confidence: 0.888354556

00:57:21.900 --> 00:57:23.636 You can get a fair amount of,  
NOTE Confidence: 0.888354556

00:57:23.640 --> 00:57:25.400 you can get activity monitoring.  
NOTE Confidence: 0.888354556

00:57:25.400 --> 00:57:27.168 Yes, you can get kind of you know,  
NOTE Confidence: 0.888354556

00:57:27.170 --> 00:57:28.636 finger activity,  
NOTE Confidence: 0.888354556

00:57:28.636 --> 00:57:31.568 finger movements, hand movements.  
NOTE Confidence: 0.888354556

00:57:31.570 --> 00:57:34.380 You can get oximetry, of course.  
NOTE Confidence: 0.888354556

00:57:34.380 --> 00:57:35.780 You can get heart rate,  
NOTE Confidence: 0.888354556

00:57:35.780 --> 00:57:38.244 so you can get do a heart  
NOTE Confidence: 0.888354556

00:57:38.244 --> 00:57:39.300 rate variability assessment.  
NOTE Confidence: 0.888354556

00:57:39.300 --> 00:57:40.911 You can measure sleep

NOTE Confidence: 0.888354556

00:57:40.911 --> 00:57:42.739 quality in different ways.

NOTE Confidence: 0.888354556

00:57:42.740 --> 00:57:45.468 And of course you can track it infinitely.

NOTE Confidence: 0.888354556

00:57:45.470 --> 00:57:47.469 Hmm, so that's a.

NOTE Confidence: 0.888354556

00:57:47.469 --> 00:57:51.020 So you can do the more direct measurements,

NOTE Confidence: 0.888354556

00:57:51.020 --> 00:57:52.900 which you do infrequently,

NOTE Confidence: 0.888354556

00:57:52.900 --> 00:57:55.250 and fill the gaps with.

NOTE Confidence: 0.717243924285714

00:57:57.850 --> 00:58:00.587 The variables, the Fitbit is pretty good.

NOTE Confidence: 0.717243924285714

00:58:00.590 --> 00:58:03.668 The new, the latest Fitbit Apple

NOTE Confidence: 0.717243924285714

00:58:03.668 --> 00:58:06.430 Watch Sleep assessment is decent.

NOTE Confidence: 0.717243924285714

00:58:06.430 --> 00:58:08.446 Now, the problem is that they

NOTE Confidence: 0.717243924285714

00:58:08.446 --> 00:58:10.450 are not tuned to elderly.

NOTE Confidence: 0.717243924285714

00:58:10.450 --> 00:58:13.182 So if you say if it gives you an

NOTE Confidence: 0.717243924285714

00:58:13.182 --> 00:58:14.909 output that you have no deep sleep,

NOTE Confidence: 0.717243924285714

00:58:14.910 --> 00:58:17.510 it doesn't mean that there's no good sleep.

NOTE Confidence: 0.717243924285714

00:58:17.510 --> 00:58:19.327 We see the problem in the sleep clinic

NOTE Confidence: 0.717243924285714

00:58:19.327 --> 00:58:20.369 already where patients come here.  
NOTE Confidence: 0.717243924285714

00:58:20.370 --> 00:58:21.898 Oh, my ring said that I'm doing that,  
NOTE Confidence: 0.540247802

00:58:21.910 --> 00:58:23.740 right? Yes, of course, yeah.  
NOTE Confidence: 0.795536398

00:58:25.110 --> 00:58:27.720 You know, maybe you're not.  
NOTE Confidence: 0.795536398

00:58:27.720 --> 00:58:30.352 OK, so doctor minor sounds like a  
NOTE Confidence: 0.795536398

00:58:30.352 --> 00:58:32.809 conflict of interest waiting to happen.  
NOTE Confidence: 0.795536398

00:58:32.810 --> 00:58:34.350 Some data in older folks  
NOTE Confidence: 0.795536398

00:58:34.350 --> 00:58:36.880 so that the. Algorithms  
NOTE Confidence: 0.813838864

00:58:36.880 --> 00:58:39.630 can be better thresholded right now. If  
NOTE Confidence: 0.863449492

00:58:39.640 --> 00:58:41.640 you're sleeping like a rock,  
NOTE Confidence: 0.863449492

00:58:41.640 --> 00:58:44.688 you are an N3 if you move just a bit.  
NOTE Confidence: 0.863449492

00:58:44.690 --> 00:58:47.580 You're in light sleep, so.  
NOTE Confidence: 0.863449492

00:58:47.580 --> 00:58:48.768 The output is, not.  
NOTE Confidence: 0.77834581

00:58:50.810 --> 00:58:54.350 Properly calibrated, I guess.  
NOTE Confidence: 0.77834581

00:58:54.350 --> 00:58:56.546 OK, very good. Well, all right.  
NOTE Confidence: 0.77834581

00:58:56.550 --> 00:58:59.518 Well, thank you everyone for a great

NOTE Confidence: 0.77834581

00:58:59.518 --> 00:59:02.578 questions and thanks Brian for a great talk.

NOTE Confidence: 0.77834581

00:59:02.580 --> 00:59:04.785 And thank you all for attending and

NOTE Confidence: 0.77834581

00:59:04.785 --> 00:59:06.571 we're looking forward to our next

NOTE Confidence: 0.77834581

00:59:06.571 --> 00:59:08.711 session which will be in just about a

NOTE Confidence: 0.77834581

00:59:08.711 --> 00:59:10.820 month in December before the holidays.

NOTE Confidence: 0.77834581

00:59:10.820 --> 00:59:12.140 Take care everybody,

NOTE Confidence: 0.77834581

00:59:12.140 --> 00:59:17.000 great seeing you and. Meet soon.