

WEBVTT

NOTE duration:"00:10:17"

NOTE recognizability:0.906

NOTE language:en-us

NOTE Confidence: 0.952631741666667

00:00:00.000 --> 00:00:02.988 Hi everyone, my name is Jamie.

NOTE Confidence: 0.952631741666667

00:00:02.990 --> 00:00:04.358 Thank you all for being here.

NOTE Confidence: 0.952631741666667

00:00:04.360 --> 00:00:06.475 It's so nice to see you all in person

NOTE Confidence: 0.952631741666667

00:00:06.475 --> 00:00:08.389 and thank you for everyone who's

NOTE Confidence: 0.952631741666667

00:00:08.389 --> 00:00:10.599 tuning in online and also special

NOTE Confidence: 0.952631741666667

00:00:10.599 --> 00:00:13.077 thanks to my advisor Doctor Nauert.

NOTE Confidence: 0.952631741666667

00:00:13.080 --> 00:00:15.719 So my topic is tucked in weighted

NOTE Confidence: 0.952631741666667

00:00:15.719 --> 00:00:17.652 blankets to improve sleep in

NOTE Confidence: 0.952631741666667

00:00:17.652 --> 00:00:19.830 intensive care unit patients and I

NOTE Confidence: 0.952631741666667

00:00:19.830 --> 00:00:22.408 did the traditional thesis group.

NOTE Confidence: 0.952631741666667

00:00:22.410 --> 00:00:24.853 So just a quick outline of what

NOTE Confidence: 0.952631741666667

00:00:24.853 --> 00:00:27.069 will be going through today.

NOTE Confidence: 0.952631741666667

00:00:27.070 --> 00:00:29.050 So sleep in all people,

NOTE Confidence: 0.952631741666667

00:00:29.050 --> 00:00:31.829 but especially those in the critically ill,  
NOTE Confidence: 0.952631741666667

00:00:31.830 --> 00:00:32.988 is incredibly important.  
NOTE Confidence: 0.952631741666667

00:00:32.988 --> 00:00:35.304 Those in the intensive care unit  
NOTE Confidence: 0.952631741666667

00:00:35.304 --> 00:00:37.808 have been found to have all domains  
NOTE Confidence: 0.952631741666667

00:00:37.808 --> 00:00:39.694 of sleep deficiency that would  
NOTE Confidence: 0.952631741666667

00:00:39.694 --> 00:00:41.486 include abnormal sleep timing,  
NOTE Confidence: 0.952631741666667

00:00:41.490 --> 00:00:45.445 poor sleep quality, or short sleep duration.  
NOTE Confidence: 0.952631741666667

00:00:45.450 --> 00:00:48.078 Sleep deficiency can increase the risk  
NOTE Confidence: 0.952631741666667

00:00:48.078 --> 00:00:50.470 of infectious and inflammatory diseases,  
NOTE Confidence: 0.952631741666667

00:00:50.470 --> 00:00:52.955 and it has contributions to all 'cause  
NOTE Confidence: 0.952631741666667

00:00:52.955 --> 00:00:55.166 mortality and it shows that there  
NOTE Confidence: 0.952631741666667

00:00:55.166 --> 00:00:57.320 are implications up to 12 months.  
NOTE Confidence: 0.952631741666667

00:00:57.320 --> 00:01:00.828 After both physically and  
NOTE Confidence: 0.952631741666667

00:01:00.828 --> 00:01:03.459 psychologically with PTSD.  
NOTE Confidence: 0.952631741666667

00:01:03.460 --> 00:01:04.816 As far as measuring sleep goes,  
NOTE Confidence: 0.952631741666667

00:01:04.820 --> 00:01:06.956 there are two ways to go about it.

NOTE Confidence: 0.952631741666667  
00:01:06.960 --> 00:01:08.752 There are objective measures,  
NOTE Confidence: 0.952631741666667  
00:01:08.752 --> 00:01:10.992 which is polysomnography or PSG,  
NOTE Confidence: 0.952631741666667  
00:01:11.000 --> 00:01:12.461 the gold standard.  
NOTE Confidence: 0.952631741666667  
00:01:12.461 --> 00:01:15.383 This is a high cost and  
NOTE Confidence: 0.952631741666667  
00:01:15.383 --> 00:01:16.660 uncomfortable process.  
NOTE Confidence: 0.952631741666667  
00:01:16.660 --> 00:01:20.081 It requires a lot of wires or leads  
NOTE Confidence: 0.952631741666667  
00:01:20.081 --> 00:01:23.568 EKG EG on the head it tracks eye  
NOTE Confidence: 0.952631741666667  
00:01:23.568 --> 00:01:26.268 movements and patients already bogged  
NOTE Confidence: 0.952631741666667  
00:01:26.268 --> 00:01:30.888 down with a lot of Ivs and other wires  
NOTE Confidence: 0.952631741666667  
00:01:30.888 --> 00:01:33.906 and it overall just doesn't bode well.  
NOTE Confidence: 0.952631741666667  
00:01:33.906 --> 00:01:35.705 For a good study, however,  
NOTE Confidence: 0.952631741666667  
00:01:35.705 --> 00:01:36.715 there's actigraphy.  
NOTE Confidence: 0.952631741666667  
00:01:36.715 --> 00:01:39.240 It has a significant correlation,  
NOTE Confidence: 0.952631741666667  
00:01:39.240 --> 00:01:41.280 shown in studies with PSG,  
NOTE Confidence: 0.952631741666667  
00:01:41.280 --> 00:01:43.350 it's less invasive, less cumbersome,  
NOTE Confidence: 0.952631741666667

00:01:43.350 --> 00:01:44.391 more cost efficient.  
NOTE Confidence: 0.952631741666667

00:01:44.391 --> 00:01:46.126 It's essentially what we like  
NOTE Confidence: 0.952631741666667

00:01:46.126 --> 00:01:48.217 to say is a glorified Fitbit.  
NOTE Confidence: 0.952631741666667

00:01:48.220 --> 00:01:49.600 You wear it on your wrist,  
NOTE Confidence: 0.952631741666667

00:01:49.600 --> 00:01:52.600 and it can track your total sleep time.  
NOTE Confidence: 0.952631741666667

00:01:52.600 --> 00:01:54.424 Another way of going about measuring  
NOTE Confidence: 0.952631741666667

00:01:54.424 --> 00:01:56.120 sleep is a subjective measure.  
NOTE Confidence: 0.952631741666667

00:01:56.120 --> 00:01:58.416 The Richard Campbell Sleep  
NOTE Confidence: 0.952631741666667

00:01:58.416 --> 00:02:01.286 Questionnaire is the only validated  
NOTE Confidence: 0.952631741666667

00:02:01.286 --> 00:02:03.220 questionnaire for ICU patients.  
NOTE Confidence: 0.952631741666667

00:02:03.220 --> 00:02:04.118 It's significantly.  
NOTE Confidence: 0.952631741666667

00:02:04.118 --> 00:02:06.363 Has been found to correlate  
NOTE Confidence: 0.952631741666667

00:02:06.363 --> 00:02:07.710 with PSG measures.  
NOTE Confidence: 0.952631741666667

00:02:07.710 --> 00:02:10.111 It requires just a simple tickmark by  
NOTE Confidence: 0.952631741666667

00:02:10.111 --> 00:02:12.389 patients and that are critically ill,  
NOTE Confidence: 0.952631741666667

00:02:12.390 --> 00:02:13.980 so this works well for them.

NOTE Confidence: 0.952631741666667  
00:02:13.980 --> 00:02:15.488 They have low stamina,  
NOTE Confidence: 0.952631741666667  
00:02:15.488 --> 00:02:17.750 it just requires a simple tick  
NOTE Confidence: 0.952631741666667  
00:02:17.831 --> 00:02:19.967 mark on a visual analog scale.  
NOTE Confidence: 0.952631741666667  
00:02:19.970 --> 00:02:22.928 So many ways have been trial  
NOTE Confidence: 0.952631741666667  
00:02:22.928 --> 00:02:24.407 to enhance sleep,  
NOTE Confidence: 0.952631741666667  
00:02:24.410 --> 00:02:26.660 especially in the critically ill,  
NOTE Confidence: 0.952631741666667  
00:02:26.660 --> 00:02:29.790 but there's no evidence based  
NOTE Confidence: 0.952631741666667  
00:02:29.790 --> 00:02:31.668 pharmacological interventions available.  
NOTE Confidence: 0.952631741666667  
00:02:31.670 --> 00:02:33.872 Oftentimes, if we try to use  
NOTE Confidence: 0.952631741666667  
00:02:33.872 --> 00:02:35.870 pharmacological methods or adverse effects,  
NOTE Confidence: 0.952631741666667  
00:02:35.870 --> 00:02:37.226 and there can also be drug,  
NOTE Confidence: 0.952631741666667  
00:02:37.230 --> 00:02:38.126 drug interactions,  
NOTE Confidence: 0.952631741666667  
00:02:38.126 --> 00:02:40.814 and patients that are already enduring  
NOTE Confidence: 0.952631741666667  
00:02:40.814 --> 00:02:43.369 a large pharmacological burden.  
NOTE Confidence: 0.952631741666667  
00:02:43.370 --> 00:02:44.810 Normal non pharmacological interventions  
NOTE Confidence: 0.952631741666667

00:02:44.810 --> 00:02:47.700 have been tried and they show some promise.

NOTE Confidence: 0.952631741666667

00:02:47.700 --> 00:02:48.970 Some things like ear plugs,

NOTE Confidence: 0.952631741666667

00:02:48.970 --> 00:02:50.431 eye masks, music.

NOTE Confidence: 0.952631741666667

00:02:50.431 --> 00:02:52.379 Cluster nursing care specifically,

NOTE Confidence: 0.952631741666667

00:02:52.380 --> 00:02:54.151 is when nurses tried to do their

NOTE Confidence: 0.952631741666667

00:02:54.151 --> 00:02:56.503 best to do all their tasks at once

NOTE Confidence: 0.952631741666667

00:02:56.503 --> 00:02:58.403 when entering a room instead of

NOTE Confidence: 0.952631741666667

00:02:58.403 --> 00:03:00.128 going in multiple times specifically

NOTE Confidence: 0.952631741666667

00:03:00.128 --> 00:03:03.116 at Yale and the medical ICU,

NOTE Confidence: 0.952631741666667

00:03:03.120 --> 00:03:04.656 they have the standard of care,

NOTE Confidence: 0.952631741666667

00:03:04.660 --> 00:03:07.404 which is a quiet time from midnight

NOTE Confidence: 0.952631741666667

00:03:07.404 --> 00:03:09.945 to 4:00 AM and a quiet pack which

NOTE Confidence: 0.952631741666667

00:03:09.945 --> 00:03:11.647 is given to all patients and

NOTE Confidence: 0.952631741666667

00:03:11.647 --> 00:03:13.579 includes an eye mask and ear buds.

NOTE Confidence: 0.952631741666667

00:03:13.580 --> 00:03:15.068 Despite all these interventions

NOTE Confidence: 0.952631741666667

00:03:15.068 --> 00:03:16.556 that are tried consistently,

NOTE Confidence: 0.952631741666667  
00:03:16.560 --> 00:03:17.760 patients report for sleep,  
NOTE Confidence: 0.952631741666667  
00:03:17.760 --> 00:03:19.560 whether it's at Yale or another  
NOTE Confidence: 0.883516472142857  
00:03:19.619 --> 00:03:20.759 hospital and for this.  
NOTE Confidence: 0.883516472142857  
00:03:20.760 --> 00:03:22.630 Reason it's necessary to continue  
NOTE Confidence: 0.883516472142857  
00:03:22.630 --> 00:03:24.126 to evaluate more methods.  
NOTE Confidence: 0.899025654090909  
00:03:26.360 --> 00:03:28.008 Then comes weighted blankets,  
NOTE Confidence: 0.899025654090909  
00:03:28.008 --> 00:03:31.002 blankets of various sizes that are filled  
NOTE Confidence: 0.899025654090909  
00:03:31.002 --> 00:03:33.257 with different materials to evenly  
NOTE Confidence: 0.899025654090909  
00:03:33.257 --> 00:03:35.579 distribute the weight across a body.  
NOTE Confidence: 0.899025654090909  
00:03:35.580 --> 00:03:37.580 The theoretical framework is  
NOTE Confidence: 0.899025654090909  
00:03:37.580 --> 00:03:40.080 that it's deep touch pressure.  
NOTE Confidence: 0.899025654090909  
00:03:40.080 --> 00:03:42.645 It's almost like a hug  
NOTE Confidence: 0.899025654090909  
00:03:42.645 --> 00:03:45.360 or a swaddle for a baby,  
NOTE Confidence: 0.899025654090909  
00:03:45.360 --> 00:03:46.902 and they're ideally 10% of your  
NOTE Confidence: 0.899025654090909  
00:03:46.902 --> 00:03:48.449 body weight and they can be  
NOTE Confidence: 0.899025654090909

00:03:48.449 --> 00:03:49.841 manufactured in such a way that  
NOTE Confidence: 0.899025654090909

00:03:49.841 --> 00:03:51.597 they can be wiped down with wipes,  
NOTE Confidence: 0.899025654090909

00:03:51.600 --> 00:03:53.520 which would be helpful in an  
NOTE Confidence: 0.899025654090909

00:03:53.520 --> 00:03:55.138 intensive care unit setting they've  
NOTE Confidence: 0.899025654090909

00:03:55.138 --> 00:03:56.828 been studied in many populations.  
NOTE Confidence: 0.899025654090909

00:03:56.830 --> 00:03:58.530 They've been studied in  
NOTE Confidence: 0.899025654090909

00:03:58.530 --> 00:03:59.805 adult psychiatric centers,  
NOTE Confidence: 0.899025654090909

00:03:59.810 --> 00:04:04.017 children with autism neonates in the ICU,  
NOTE Confidence: 0.899025654090909

00:04:04.020 --> 00:04:06.750 those with breast cancer in  
NOTE Confidence: 0.899025654090909

00:04:06.750 --> 00:04:08.934 inpatient and outpatient settings.  
NOTE Confidence: 0.899025654090909

00:04:08.940 --> 00:04:11.346 These studies have often been flawed  
NOTE Confidence: 0.899025654090909

00:04:11.346 --> 00:04:14.338 in certain ways or have not had  
NOTE Confidence: 0.899025654090909

00:04:14.338 --> 00:04:16.523 significant sample sizes show bias,  
NOTE Confidence: 0.899025654090909

00:04:16.530 --> 00:04:18.942 but overall results have showed an  
NOTE Confidence: 0.899025654090909

00:04:18.942 --> 00:04:21.530 increase in total sleep time and  
NOTE Confidence: 0.899025654090909

00:04:21.530 --> 00:04:24.236 consistently show a high user satisfaction.

NOTE Confidence: 0.899025654090909  
00:04:24.240 --> 00:04:26.480 However, weighted blankets have not  
NOTE Confidence: 0.899025654090909  
00:04:26.480 --> 00:04:29.070 been tried in the critically ill.  
NOTE Confidence: 0.899025654090909  
00:04:29.070 --> 00:04:31.877 So as far as the problem goes,  
NOTE Confidence: 0.899025654090909  
00:04:31.880 --> 00:04:33.104 sleep deficiency is pervasive  
NOTE Confidence: 0.899025654090909  
00:04:33.104 --> 00:04:34.328 in the critically ill,  
NOTE Confidence: 0.899025654090909  
00:04:34.330 --> 00:04:36.630 with no evidence based pharmacological  
NOTE Confidence: 0.899025654090909  
00:04:36.630 --> 00:04:38.930 interventions shown to be effective.  
NOTE Confidence: 0.899025654090909  
00:04:38.930 --> 00:04:40.106 For this reason,  
NOTE Confidence: 0.899025654090909  
00:04:40.106 --> 00:04:41.282 non pharmacological strategies  
NOTE Confidence: 0.899025654090909  
00:04:41.282 --> 00:04:43.609 must be continued to be explored.  
NOTE Confidence: 0.899025654090909  
00:04:43.610 --> 00:04:44.995 Weighted blankets have been shown  
NOTE Confidence: 0.899025654090909  
00:04:44.995 --> 00:04:47.350 to help with sleep and anxiety in a  
NOTE Confidence: 0.899025654090909  
00:04:47.350 --> 00:04:48.870 variety of settings and populations.  
NOTE Confidence: 0.899025654090909  
00:04:48.870 --> 00:04:49.309 However,  
NOTE Confidence: 0.899025654090909  
00:04:49.309 --> 00:04:51.504 there's a lack of literature  
NOTE Confidence: 0.899025654090909

00:04:51.504 --> 00:04:53.773 in this population where sleep  
NOTE Confidence: 0.899025654090909

00:04:53.773 --> 00:04:55.529 is vital and jeopardized.  
NOTE Confidence: 0.899025654090909

00:04:55.530 --> 00:04:57.425 So we hypothesize that weighted  
NOTE Confidence: 0.899025654090909

00:04:57.425 --> 00:04:59.727 blankets used in hospital lies patients  
NOTE Confidence: 0.899025654090909

00:04:59.727 --> 00:05:02.086 over 50 years old in intensive care  
NOTE Confidence: 0.899025654090909

00:05:02.086 --> 00:05:03.958 units will have different mean  
NOTE Confidence: 0.899025654090909

00:05:03.958 --> 00:05:06.232 total sleep time when compared to  
NOTE Confidence: 0.899025654090909

00:05:06.232 --> 00:05:09.550 baseline of those with usual care.  
NOTE Confidence: 0.899025654090909

00:05:09.550 --> 00:05:12.357 This will be a randomized controlled trial.  
NOTE Confidence: 0.899025654090909

00:05:12.360 --> 00:05:13.770 It will have two arms,  
NOTE Confidence: 0.899025654090909

00:05:13.770 --> 00:05:15.278 weighted blankets and usual  
NOTE Confidence: 0.899025654090909

00:05:15.278 --> 00:05:16.786 or standard of care.  
NOTE Confidence: 0.899025654090909

00:05:16.790 --> 00:05:18.650 We will study adult critically  
NOTE Confidence: 0.899025654090909

00:05:18.650 --> 00:05:20.840 ill patients over 50 years old.  
NOTE Confidence: 0.899025654090909

00:05:20.840 --> 00:05:22.716 The reason we specify 50 years old  
NOTE Confidence: 0.899025654090909

00:05:22.716 --> 00:05:24.553 is that they are most susceptible

NOTE Confidence: 0.899025654090909  
00:05:24.553 --> 00:05:26.828 to the adverse effects of low sleep,  
NOTE Confidence: 0.899025654090909  
00:05:26.830 --> 00:05:28.306 including things like delirium,  
NOTE Confidence: 0.899025654090909  
00:05:28.306 --> 00:05:30.520 which is rampant in the ICU.  
NOTE Confidence: 0.899025654090909  
00:05:30.520 --> 00:05:32.410 The exclusion criteria will include  
NOTE Confidence: 0.899025654090909  
00:05:32.410 --> 00:05:33.922 those in respiratory failure,  
NOTE Confidence: 0.899025654090909  
00:05:33.930 --> 00:05:34.970 so those on, say,  
NOTE Confidence: 0.899025654090909  
00:05:34.970 --> 00:05:36.890 a ventilator or those with active loans,  
NOTE Confidence: 0.899025654090909  
00:05:36.890 --> 00:05:38.650 whether they're pressure wounds  
NOTE Confidence: 0.899025654090909  
00:05:38.650 --> 00:05:39.970 or recent surgeries.  
NOTE Confidence: 0.899025654090909  
00:05:39.970 --> 00:05:42.064 And those expected to leave within  
NOTE Confidence: 0.899025654090909  
00:05:42.064 --> 00:05:44.139 the next 24 hours by staff.  
NOTE Confidence: 0.899025654090909  
00:05:44.140 --> 00:05:46.050 We will evaluate all patients  
NOTE Confidence: 0.899025654090909  
00:05:46.050 --> 00:05:48.465 admitted to the MCU daily as  
NOTE Confidence: 0.899025654090909  
00:05:48.465 --> 00:05:50.610 potential subjects for this study.  
NOTE Confidence: 0.871958881428572  
00:05:52.930 --> 00:05:54.838 The key variables the intervention will  
NOTE Confidence: 0.871958881428572

00:05:54.838 --> 00:05:56.962 be the weighted blanket plus standard of  
NOTE Confidence: 0.871958881428572

00:05:56.962 --> 00:05:59.140 care and like I mentioned earlier at Yale,  
NOTE Confidence: 0.871958881428572

00:05:59.140 --> 00:06:00.790 the standard of care is that  
NOTE Confidence: 0.871958881428572

00:06:00.790 --> 00:06:02.639 quiet pack in those quiet hours,  
NOTE Confidence: 0.871958881428572

00:06:02.640 --> 00:06:05.440 the control will be standard of care alone.  
NOTE Confidence: 0.871958881428572

00:06:05.440 --> 00:06:08.030 The primary outcome will be total sleep  
NOTE Confidence: 0.871958881428572

00:06:08.030 --> 00:06:10.588 time via actigraphy that glorified Fitbit.  
NOTE Confidence: 0.871958881428572

00:06:10.590 --> 00:06:12.598 On night two of the blanket use and  
NOTE Confidence: 0.871958881428572

00:06:12.598 --> 00:06:14.455 the secondary outcome will be the  
NOTE Confidence: 0.871958881428572

00:06:14.455 --> 00:06:16.080 Sleep Questionnaire the next morning.  
NOTE Confidence: 0.871958881428572

00:06:16.080 --> 00:06:17.288 Based on that night,  
NOTE Confidence: 0.871958881428572

00:06:17.288 --> 00:06:19.718 two of the study we will come.  
NOTE Confidence: 0.871958881428572

00:06:19.718 --> 00:06:22.560 Get consent from all patients to videotape  
NOTE Confidence: 0.871958881428572

00:06:22.632 --> 00:06:25.012 to ensure that the blanket is used  
NOTE Confidence: 0.871958881428572

00:06:25.012 --> 00:06:27.777 for at least one hour on that night.  
NOTE Confidence: 0.871958881428572

00:06:27.780 --> 00:06:29.915 Two of the study and only those

NOTE Confidence: 0.871958881428572  
00:06:29.915 --> 00:06:32.538 that use the blanket for one hour  
NOTE Confidence: 0.871958881428572  
00:06:32.538 --> 00:06:34.170 will qualify for analysis.  
NOTE Confidence: 0.871958881428572  
00:06:34.170 --> 00:06:35.484 Blinding the intervention  
NOTE Confidence: 0.871958881428572  
00:06:35.484 --> 00:06:36.798 to the participants.  
NOTE Confidence: 0.871958881428572  
00:06:36.800 --> 00:06:39.632 We will phrase it as a non pharmacological  
NOTE Confidence: 0.871958881428572  
00:06:39.632 --> 00:06:42.115 sleep study and we will leave out  
NOTE Confidence: 0.871958881428572  
00:06:42.115 --> 00:06:44.020 the fact that the intervention of  
NOTE Confidence: 0.871958881428572  
00:06:44.020 --> 00:06:46.449 interest is the way to blanket because  
NOTE Confidence: 0.871958881428572  
00:06:46.449 --> 00:06:49.398 standard of care as well also has  
NOTE Confidence: 0.871958881428572  
00:06:49.398 --> 00:06:50.778 non pharmacological interventions,  
NOTE Confidence: 0.871958881428572  
00:06:50.780 --> 00:06:52.133 the ear buds.  
NOTE Confidence: 0.871958881428572  
00:06:52.133 --> 00:06:53.937 And the eye mask.  
NOTE Confidence: 0.871958881428572  
00:06:53.940 --> 00:06:54.996 Finding the outcome.  
NOTE Confidence: 0.871958881428572  
00:06:54.996 --> 00:06:56.052 The research assistant  
NOTE Confidence: 0.871958881428572  
00:06:56.052 --> 00:06:57.802 interpreting the data will not  
NOTE Confidence: 0.871958881428572

00:06:57.802 --> 00:06:59.227 have access to the allocation.  
NOTE Confidence: 0.839108095

00:07:01.280 --> 00:07:05.096 So yells, MCU admits 4000 patients per year,  
NOTE Confidence: 0.839108095

00:07:05.100 --> 00:07:07.878 and the median stays three nights,  
NOTE Confidence: 0.839108095

00:07:07.880 --> 00:07:10.288 which allows us to determine that this would  
NOTE Confidence: 0.839108095

00:07:10.288 --> 00:07:13.168 be a feasible study to carry out at Yale.  
NOTE Confidence: 0.839108095

00:07:13.170 --> 00:07:16.794 We calculated the sample size based on data  
NOTE Confidence: 0.839108095

00:07:16.794 --> 00:07:19.928 historical data in the Yale ICU based on Dr.  
NOTE Confidence: 0.839108095

00:07:19.930 --> 00:07:22.226 Narcs lab. They found that the average  
NOTE Confidence: 0.839108095

00:07:22.226 --> 00:07:25.107 is 94 minutes of total sleep time with  
NOTE Confidence: 0.839108095

00:07:25.107 --> 00:07:26.937 variance of 61 minutes willpower.  
NOTE Confidence: 0.839108095

00:07:26.940 --> 00:07:29.358 The study to 80% affect size  
NOTE Confidence: 0.839108095

00:07:29.358 --> 00:07:31.364 of 20% or 18 minutes.  
NOTE Confidence: 0.839108095

00:07:31.364 --> 00:07:33.354 So given all this data,  
NOTE Confidence: 0.839108095

00:07:33.360 --> 00:07:36.727 historical data based on Doctor Notes Lab,  
NOTE Confidence: 0.839108095

00:07:36.730 --> 00:07:38.662 we will have a calculated sample  
NOTE Confidence: 0.839108095

00:07:38.662 --> 00:07:40.732 size of 324 and will round up to

NOTE Confidence: 0.839108095

00:07:40.732 --> 00:07:42.360 3:30 to allow for correction.

NOTE Confidence: 0.899454952

00:07:44.500 --> 00:07:47.308 So this is just a graphic

NOTE Confidence: 0.899454952

00:07:47.308 --> 00:07:49.180 kind of outlying everything.

NOTE Confidence: 0.899454952

00:07:49.180 --> 00:07:52.239 I already said patients will be admitted

NOTE Confidence: 0.899454952

00:07:52.239 --> 00:07:55.660 to the hospital later admitted to the MCU.

NOTE Confidence: 0.899454952

00:07:55.660 --> 00:07:57.248 They'll be randomized either

NOTE Confidence: 0.899454952

00:07:57.248 --> 00:07:58.836 to control or intervention,

NOTE Confidence: 0.899454952

00:07:58.840 --> 00:08:01.360 and they'll wear actigraphy on night one,

NOTE Confidence: 0.899454952

00:08:01.360 --> 00:08:03.176 though the night of interest is night two,

NOTE Confidence: 0.899454952

00:08:03.180 --> 00:08:04.524 once they're accustomed to all of

NOTE Confidence: 0.899454952

00:08:04.524 --> 00:08:05.920 these things being on their body,

NOTE Confidence: 0.899454952

00:08:05.920 --> 00:08:08.576 and they've adjusted to being on the unit,

NOTE Confidence: 0.899454952

00:08:08.580 --> 00:08:10.515 so night two will collect

NOTE Confidence: 0.899454952

00:08:10.515 --> 00:08:11.676 the actigraphy data,

NOTE Confidence: 0.899454952

00:08:11.680 --> 00:08:14.128 and the next morning will do

NOTE Confidence: 0.899454952

00:08:14.128 --> 00:08:15.352 the Sleep questionnaire.  
NOTE Confidence: 0.899454952

00:08:15.360 --> 00:08:16.907 Based on night, two of the study.  
NOTE Confidence: 0.947279737272727

00:08:19.130 --> 00:08:20.955 So. The impact that this  
NOTE Confidence: 0.947279737272727

00:08:20.955 --> 00:08:23.340 could have is that it could.  
NOTE Confidence: 0.947279737272727

00:08:23.340 --> 00:08:25.272 Improve patient outcomes both short term  
NOTE Confidence: 0.947279737272727

00:08:25.272 --> 00:08:27.818 and long term like I'd mentioned earlier,  
NOTE Confidence: 0.947279737272727

00:08:27.820 --> 00:08:30.270 these effects of low sleep can carry  
NOTE Confidence: 0.947279737272727

00:08:30.270 --> 00:08:33.418 on up to 12 months after discharge.  
NOTE Confidence: 0.947279737272727

00:08:33.420 --> 00:08:37.081 It allows us to offer another non  
NOTE Confidence: 0.947279737272727

00:08:37.081 --> 00:08:39.245 pharmacological option to those  
NOTE Confidence: 0.947279737272727

00:08:39.245 --> 00:08:42.662 that don't have many options and it  
NOTE Confidence: 0.947279737272727

00:08:42.662 --> 00:08:44.466 can increase patient satisfaction.  
NOTE Confidence: 0.947279737272727

00:08:44.470 --> 00:08:47.991 It avoids secondary harm and not trying  
NOTE Confidence: 0.947279737272727

00:08:47.991 --> 00:08:50.500 to treat pharmacologically and while  
NOTE Confidence: 0.947279737272727

00:08:50.500 --> 00:08:53.500 it is a very specific population.  
NOTE Confidence: 0.947279737272727

00:08:53.500 --> 00:08:55.230 It's a population where sleep

NOTE Confidence: 0.947279737272727  
00:08:55.230 --> 00:08:56.268 is most disrupted,  
NOTE Confidence: 0.947279737272727  
00:08:56.270 --> 00:08:59.062 and ideally we would be able to generalize  
NOTE Confidence: 0.947279737272727  
00:08:59.062 --> 00:09:01.308 and apply to a wider population.  
NOTE Confidence: 0.856886671428571  
00:09:03.440 --> 00:09:06.317 Uhm, the study has some potential strengths.  
NOTE Confidence: 0.856886671428571  
00:09:06.320 --> 00:09:08.120 It's a significant sample size  
NOTE Confidence: 0.856886671428571  
00:09:08.120 --> 00:09:10.307 based on historical data where the  
NOTE Confidence: 0.856886671428571  
00:09:10.307 --> 00:09:12.275 actual study would be taking place.  
NOTE Confidence: 0.856886671428571  
00:09:12.280 --> 00:09:15.030 It's also the first of its kind in that it  
NOTE Confidence: 0.856886671428571  
00:09:15.095 --> 00:09:17.780 offers objective and subjective outcomes,  
NOTE Confidence: 0.856886671428571  
00:09:17.780 --> 00:09:21.372 and we do try to address bias through  
NOTE Confidence: 0.856886671428571  
00:09:21.372 --> 00:09:24.747 blinding the participants to the  
NOTE Confidence: 0.856886671428571  
00:09:24.747 --> 00:09:27.129 non pharmacological intervention.  
NOTE Confidence: 0.856886671428571  
00:09:27.130 --> 00:09:28.660 We do also have limitations.  
NOTE Confidence: 0.856886671428571  
00:09:28.660 --> 00:09:30.170 There is difficulty with binding  
NOTE Confidence: 0.856886671428571  
00:09:30.170 --> 00:09:31.959 given that a weighted blanket is  
NOTE Confidence: 0.856886671428571

00:09:31.959 --> 00:09:33.534 quite heavy and you can tell it's.  
NOTE Confidence: 0.856886671428571

00:09:33.540 --> 00:09:36.480 Waited up. And there's also a high  
NOTE Confidence: 0.856886671428571

00:09:36.480 --> 00:09:38.740 variability of sleep at baseline.  
NOTE Confidence: 0.856886671428571

00:09:38.740 --> 00:09:40.777 I think I mentioned earlier the average  
NOTE Confidence: 0.856886671428571

00:09:40.777 --> 00:09:42.721 and Niels McHugh is 94 minutes with  
NOTE Confidence: 0.856886671428571

00:09:42.721 --> 00:09:45.096 the variance of 61 minutes pretty high.  
NOTE Confidence: 0.856886671428571

00:09:45.096 --> 00:09:47.516 However, we do try to address that by  
NOTE Confidence: 0.856886671428571

00:09:47.516 --> 00:09:49.857 carrying out the study in yells McHugh.  
NOTE Confidence: 0.856886671428571

00:09:49.860 --> 00:09:51.600 Additionally, there's some limitations  
NOTE Confidence: 0.856886671428571

00:09:51.600 --> 00:09:53.775 with the accuracy of actigraphy,  
NOTE Confidence: 0.856886671428571

00:09:53.780 --> 00:09:55.770 as it is an accelerometer,  
NOTE Confidence: 0.856886671428571

00:09:55.770 --> 00:09:56.740 it's worn on your wrist,  
NOTE Confidence: 0.856886671428571

00:09:56.740 --> 00:09:57.770 and if you're not moving,  
NOTE Confidence: 0.856886671428571

00:09:57.770 --> 00:09:59.900 it's harder for it to track,  
NOTE Confidence: 0.856886671428571

00:09:59.900 --> 00:10:02.098 so it's just one thing to keep  
NOTE Confidence: 0.856886671428571

00:10:02.098 --> 00:10:04.439 in mind when we interpret data.

NOTE Confidence: 0.856886671428571

00:10:04.440 --> 00:10:06.132 So I just want to thank you all for

NOTE Confidence: 0.856886671428571

00:10:06.132 --> 00:10:07.676 listening. I want to thank Doctor Nauert.

NOTE Confidence: 0.856886671428571

00:10:07.680 --> 00:10:10.056 She was an amazing thesis advisor.

NOTE Confidence: 0.856886671428571

00:10:10.060 --> 00:10:10.720 Thank you.

NOTE Confidence: 0.856886671428571

00:10:10.720 --> 00:10:12.700 Rosanna and Megan and the Graduate

NOTE Confidence: 0.856886671428571

00:10:12.700 --> 00:10:14.273 writing lab and everyone who

NOTE Confidence: 0.856886671428571

00:10:14.273 --> 00:10:16.261 helped get us here to this point

NOTE Confidence: 0.856886671428571

00:10:16.319 --> 00:10:17.000 and thanks class of 2021.