



Supplementary Materials

Sleep in the Natural Environment: A Pilot Study

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S1: Demographic questionnaire

Demographics
Assigned Study Identification Number:
2. What is your biological sex? Male Female
3. Are you Spanish, Hispanic, or Latino? No Yes
4. What is your race? (Mark all that apply) White Black/African American American Indian/Alaska Native Asian Native Hawaiian or Other Pacific Islander Other (please specify)
5. What is the highest level of education you have completed? 6. What is your height in inches?
7. What is your weight in lbs?

8. What is your neck collar size in cms?
9. What best describes your current main daily activities?
Working full time (day shifts)
Working full time (rotating or night shifts)
Working part time (day shifts)
Working part time (rotating or night shifts)
Unemployed, looking for work
☐ In school
Stay at home parent
Retired
Disabled
Prefer not to answer
10. Thinking about the past 3 months, which of the following best describes your work schedule Regular day shifts Regular evening shifts
Regular night shifts (9pm to 8am)
Rotating shifts (one that changes periodically from days, evening or nights)
Split shifts (one consisting of two distinct periods each day)
An irregular schedule
Prefer not to answer
11. Do you have flexible work hours that allow you to vary or make changes in the time you begin and end work?
Yes
○ No
Prefer not to answer

S2: SF-36 questionnaire

0	Much better now than one year ago	Compared to one y	0	Excellent	2. In general, would you say your health is:	Instructions: This quevery question. If yo	36-Item Short Form
0	Somewhat better now than one year ago	3. Compared to one year ago, how would your rate your health in general now?	0	Very good	ou say your health is:	Instructions: This questionnaire asks you about your general health. Please attempt to answer every question. If you are unsure about how to answer a question, please give the best answer you can. You do not have to answer any question you feel uncomfortable answering.	36-Item Short Form Survey Instrument (Page 1)
0	About the same	ur rate your health ir	0	Good		u about your gener low to answer a qui	(Page 1)
0	Somewhat worse now than one year ago	n general <u>now?</u>	0	Fair		al health. Please atte estion, please give th	
0	Much worse now than one year ago		0	Poor		mpt to answer ne best answer you	

0	0	0
No, Not Limited at All	Yes, Limited a Little	11. Walking <u>several blocks</u> Yes, Limited a Lot
0	0	0
No, Not Limited at All	Yes, Limited a Little	Yes, Limited a Lot
		10. Walking <u>more than a mile</u>
0	0	0
No, Not Limited at All	Yes, Limited a Little	 Bending, kneeling, or stooping Yes, Limited a Lot
0	0	0
No, Not Limited at All	Yes, Limited a Little	Yes, Limited a Lot
		o Climbing on dight of this
0	0	0
No, Not Limited at All	Yes, Limited a Little	7. Climbing several flights of stairs Yes, Limited a Lot
0	0	0
No, Not Limited at All	Yes, Limited a Little	Yes, Limited a Lot
		6. Lifting or carrying groceries
0	0	0
No, Not Limited at All	Yes, Limited a Little	Yes, Limited a Lot
ner, bowling or playing golf	a table, pushing a vacuum clear	5. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf
0	0	0
No, Not Limited at All	Yes, Limited a Little	Yes, Limited a Lot
ng in strenuous sports	lifting heavy objects, participatir	4. <u>Vigorous activities,</u> such as running, lifting heavy objects, participating in strenuous sports
<u>cal day</u> . Does your <u>health</u> nov	ties you might do during atypi ow much?	The following items are about activities you might do during a <u>typical day</u> . Does your <u>health</u> now limit you in these activities? If so, how much?
	nent (Page 2)	36-Item Short Form Survey Instrument (Page 2)

0	Yes, Limited a Lot	13. Bathing or dressing yourself	0	12. Walking <u>one block</u> Yes, Limited a Lot
0	Yes, Limited a Little		0	Yes, Limited a Little
0	No, Not Limited at All		0	No, Not Limited at All

0	Yes	17. Had difficulty performing the work or other activities (for example, it took extra effort)	0	Yes	16. Were limited in the kind of work or other activities	0	Yes	15. Accomplished less than you would like	0	Yes	14. Cut down the amount of time you spent on work or other activities	During the <u>past 4 weeks,</u> have you had any of the following problems with your work or other regular daily activities as a result of your <u>physical health?</u>	Medical Outcomes Study: 36-Item Short Form Survey Instrument (Page 3)
0	No	ample, it took extra effort)	0	No		0	No		0	No	ctivities	g problems with your work or other	nstrument (Page 3)

0	Yes	20. Didn't do work or other activities ascarefully as usual	0	Yes	19. Accomplished less than you would like	0	Yes	anxious)? 18. Cut down the amount of time you spent on work or other activities	During the <u>past 4 weeks,</u> have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or	36-Item Short Form Survey Instrument (Page 4)
0	No		0	No		0	No		s with your work or other	

0	23. During the past 4 outside the home an	0	22. How much <u>bodily</u> None	0	Not at all	21. During the <u>past 4</u> your normal social a	Medical Outcomes
0	weeks, how much did d housework)? A little bit	0	pain have you had du	0	Slightly	<u>.weeks,</u> to what exten ctivities with family, fric	Study: 36-Item Sho
0	d <u>pain</u> interfere with you Moderately	0	uring the past 4 weeks?	0	Moderately	t has your physical hea	Medical Outcomes Study: 36-Item Short Form Survey Instrument (Page 5)
0	ir normal work (includir Quite a bit	0	ate Severe	0	Quite a bit	alth or emotional proble лирs?	trument (Page 5)
0	ng both work Extremely	0	Very Severe	0	Extremely	ms interfered with	
		past 4 weeks, how much did pain interfere with your normal work (including bott me and housework)? A little bit Moderately Quite a bit	uch did pain interfere with your normal work (including both	had during the past 4 weeks? Mild Moderate Severe Mild Moderate Severe Could be a bit E Moderately Ouite a bit E	had during the past 4 weeks? Mild Moderate Severe Outh did pain interfere with your normal work (including both the Moderately Outle a bit	Moderately And during the past 4 weeks? Mild Moderate Severe Mild Moderate Severe Mild Moderate Severe Outle a bit E Moderate Severe	t extent has your physical health or emotional problems intents, neighbors, or groups? Moderately Ouite a bit E Mid Moderate Moderate Moderate Ouite a bit E Moderate Ouite a bit

29. Have you felt downhearted and blue? AG All of the Time Most of the Time	e you felt downhearted and b			All of the Time Most of the Time	28. Did you have a lot of energy?	0	All of the Time Most of the Time	27. Have you felt calm and peaceful?	0	All of the Time Most of the Time	26. Have you felt so down in the dumps that nothing could cheer you up?	0	All of the Time Most of the Time	25. Have you been a very nervous person?	0	All of the Time Most of the Time	24. Did you feel full of pep?	How much of the time during the past 4 weeks	weeks. For each question, please give the one answer that comes closest to the way you have been feeling.	These questions are about how you feel and how things have been with you during thepast 4	36-Item Short Form Survey Instrument (Page 6)
A Good Bit of the Time		lue?	0	A Good Bit of the Time		0	A Good Bit of the Time		0	A Good Bit of the Time	າps that nothing c	0	A Good Bit of the Time	erson?	0	A Good Bit of the Time		ast 4 weeks	give the one ans	u feel and how t	ument (Page 6)
some or the Time			0	Some of the Time		0	Some of the Time		0	Some of the Time	ould cheer you up	0	Some of the Time		0	Some of the Time			wer that comes	hings have been	
	A Little of the Time		0	A Little of the Time		0	A Little of the Time		0	A Little of the Time	?	0	A Little of the Time		0	A Little of the Time			closest to the way	with you during	
	None of the Time		0	None of the Time		0	None of the Time		0	None of the Time		0	None of the Time		0	None of the Time			/ you have been	thepast 4	

0	32. Did you feel tired? All of the Time M	0	31. Have you bee	0	30. Did you feel worn out? All of the Time Most of
0	red? Most of the Time	0	31. Have you been a happy person? All of the Time Most of the Time	0	vorn out? Most of the Time
0	A Good Bit of the	0	A Good Bit of the	0	A Good Bit of the Time
\circ	Some of the Time	0	Some of the Time	0	Some of the Time
0	A Little of the Time	0	A Little of the Time	0	A Little of the Time
0	None of the Time	0	None of the Time	0	None of the Time

	interfered with your s	36-Item Short For
	33. During the <u>past 4 weeks</u> , now much of the line has youphysical health of emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)? Not of the line with the line and the line when the line with the line with the line when the line with the line	36-Item Short Form Survey Instrument (Page 7)
	ne time has yourphysic iting with friends, relati	(Page 7)
	ves, etc.)?	
	problems	

0	Definitely True	37. My health is excellent	0	Definitely True	36. I expect my health to get worse	0	Definitely True	35. I am as healthy as anybody I know	0	Definitely True	34. I seem to get sick a little easier than other people	How TRUE or FALSE is each of the following statements for you.	36-Item Short Form Survey Instrument (Page 8)
0	Mostly True	ent	0	Mostly True	to get worse	0	Mostly True	anybody I know	0	Mostly True	a little easier than ot	is each of the follo	Survey Instrumen
0	Don't Know		0	Don't Know		0	Don't Know		0	Don't Know	her people	wing statements fo	it (Page 8)
0	Mostly False		0	Mostly False		0	Mostly False		0	Mostly False		r you.	
0	Definitely False		0	Definitely False		0	Definitely False		0	Definitely False			

S3: MEQ questionnaire

Instructions: This questionnaire asks you about when you feel the most alert. Please attempt to answer every mustion. If you are unsure about how to answer a question, please give the best	estionnaire a	sks you about w	hen you feel the i	nost alert. Please	attempt to
answer every question. If you are unsure about how to answer a question, please give the best answer you can. You do not have to answer any question you feel uncomfortable answering. Each question should be answered independently of others. Do NOT go back and check your answers.	do not have	unsure about ho to answer any que ependently of otl	w to answer a quuestion you feel uners. Do NOT go l	estion, please grant of the comfortable and check y	ve the best swering. Each our answers.
38. Approximately what time would you get up if you were entirely free to plan your day?	ıt time would y	ou get up if you w	ere entirely free to	plan your day?	
5:00 AM-6:30 AM 6:3 (05:00-06:30 h) (0	6:30 AM-7:45 AM (06:30-07:45 h)	7:45 AM-9:45 AM (07:45-09:45 h)	9:45 AM-11:00 AM (09:45-11:00 h)	11:00 AM-12 noon (11:00-12:00 h)	12 noon-5:00 AM (12:00-05:00)
0	0	0	0	0	0
39. Approximately what time would you go to bed if you were entirely free to plan your evening?	ıt time would y	ou go to bed if yo	u were entirely fre	e to plan your	
8:00 PM-9:00 PM 9:00 (20:00-21:00 h) (2	9:00 PM-10:15 PM (21:00-22:15 h)	10:15 PM-12:30 AM (22:15-00:30 h)	12:30 AM-1:45 AM (00:30-01:45 h)	1:45 AM-3:00 AM (01:45-03:00 h)	3:00 AM-8:00 PM (03:00-20:00 h)
0	0	0	0	0	0
40. If you usually have to get up at a specific time in the morning, how much do you depend on an alarm clock? Not al all Slightly Somewhat Very much	to get up at a				
0		specific time in the	e morning, how m	uch do you depen	d on an alarm Very much
41. How easy do you find it to get up in the morning (when you are not awakened unexpectedly)?		specific time in the slightly	e morning, how m	uch do you depen	d on an alarm Very much
Very difficult	ind it to get up	specific time in the slightly slightly in the morning (v	somewhat	uch do you depen	d on an alarm Very much
0	ind it to get up	slightly up in the morning (v	se morning, how m	uch do you depen	d on an alarm Very much Very easy
42. How alert do you feel during the first half hour after you wake up in the morning?	ind it to get up Sor	specific time in the significant significant significant significant specific time in the morning (v	somewhat	uch do you depen	d on an alarm Very much Very easy
Not at all alert	ind it to get up	specific time in the slightly slightly in the morning (vinewhat difficult first half hour after	somewhat Som	uch do you depen	d on an alarm Very much Very easy
0	ind it to get up Sor sel during the	slightly slightly in the morning (v mewhat difficult mewhat difficult slightly alert slightly alert	Somewhat Somewhat Somewhat hen you are not a Fairly easy r you wake up in the	uch do you depen wakened	d on an alarm Very much Very easy Very easy Very alert
	ind it to get up Sor sel during the	specific time in the slightly sin the morning (volume to the morning (volume to the slightly alert slightly alert	Somewhat Somewhat hen you are not a Fairly easy	uch do you depen wakened	d on an alarm Very much Very easy Very alert
43. How hungry do you feel during the first half hour after you wake up?	ind it to get up	specific time in the slightly sin the morning (volume to the morning (volume to the slightly alert slightly ale	Somewhat Somewhat hen you are not a fairly easy r you wake up in th Fairly alen fairly out wake up?	uch do you depen wakened	d on an alarm Very much Very easy Very easy
3. How hungry do you Not at all hungry	and it to get up	a specific time in the slightly p in the morning (v promewhat difficult or slightly elert slightly elert slightly hungry	so morning, how mu Somewhat Somewhat Somewhat Fairly easy Fairly easy Fairly alert Fairly out Fairly hungry	uch do you depen wakened wa morning?	Very nuch Very alert Very alert Very hungry

44. During the first half hour after you wake up in the morning, how do you feel?	ır after you wake up in t	the morning, how	do you feel?	
Very tired	Fairly tired	Fairly	Fairly refreshed	Very refreshed
0	0		0	0
45. If you had no commitments the next day, what time would you go to bed compared to your usual	ents the next day, what	t time would you g	go to bed compa	red to your usual
Seldom or never later	Less than 1 hour later		1-2 hours later	More than 2 hours later
0	0		0	0
46. You have decided to do physical exercise. A friend suggests that you do this for one hour twice a week, and the best time for him is between 7-8 AM (07-08 h). Bearing in mind nothing but your own internal	o physical exercise. A fr r him is between 7-8 AN	riend suggests tha M (07-08 h). Bear	at you do this for	one hour twice a
"clock," how do you think you would perform?	ou would perform?		1100	
O DOOR IN BOOK ON	O O O O O O O O O O O O O O O O O O O		A A A A A A A A A A A A A A A A A A A	And I werk dillicon
47. At approximately what time in the evening do you feel tired, and, as a result, in need of sleep?	time in the evening do	you feel tired, and	d, as a result, in	need of sleep?
8:00 PM-9:00 PM 9 (20:00-21:00 h)	9:00 PM-10:15 PM 10:1:	10:15 PM-12:45 AM	12:45 AM-2:00 AM (00:45-02:00 h)	
0		(22:15-00:45 h)	A	(uz:uu-us:uu n)
18. You want to be at your	peak performance for a	2:15-00:45 h) a test that you kno	ow is going to be	mentally exhausting
.8. You want to be at your ind will last two hours. Yo one of the four testing time	peak performance for a u are entirely free to pla	2:15-00:45 h) 2:15-00:45 h) a test that you known your day. Cons	ow is going to be	mentally exhausting
48. You want to be at your peak performance for a test that you know is going to be mentally exhausting and will last two hours. You are entirely free to plan your day. Considering only your "internal clock," which one of the four testing times would you choose? 8.AM-10.AM (08-10.h) 11.AM-1.PM (11-13.h) 3.PM-5.PM (15-17.h) 7.PM-9.PM (19-21.h)	peak performance for a u are entirely free to pla s would you choose?	2:15-00:45 h) 2:15-00:45 h) 2:15-00:45 h) 3:15-00:45 h)	ow is going to be idering only you	r "internal clock," whi
8. You want to be at your not will ast two hours. Yo no of the four testing tim 8 AM-10 AM (08-10 h)	peak performance for a ure entirely free to play swould you choose?	2:15-00:45 h) 2:15-00:45 h) a test that you kno n your day. Cons) 3 PM-5 P	you know is going to bu ay. Considering only you 3 PM-5 PM (15-17 h)	mentally exhausting r "internal clock," whit
48. You want to be at your peak performance for a test that you and will last two hours. You are entirely free to plan your day. Cone of the four testing times would you choose? 8 AM-10 AM (08-10 h) 11 AM-1 PM (11-13 h) 3 PM 49. If you got into bed at 11 PM (23 h), how tired would you be?	peak performance for a uare entirely free to pla so would you choose? 11 AM-1 PM (11-13 h)	a test that you kno in your day. Cons i) 3 PM-5 P would you be?	ow is going to buildering only you wildering only you wildering only you	mentally exhausting r "internal clock," whi
8. You want to be at your nd will last two hours. Yo ne of the four testing times and 108-10 h) 8. AM-10 AM (08-10 h) 9. If you got into bed at 1 Not at all fired	peak performance for a uare entirely free to pla se would you choose? 11 AM-1 PM (11-13 h) 1 PM (23 h), how tired v A little tired	2:15-00:45 h) 2:15-00:45 h) a test that you kno in your day. Cons in your day. Cons in your day. Cons in you be? Fair	know is going to bu onsidering only you -5 PM (15–17 h)	r "internal clock," whi
B. You want to be at your nd will last two hours. Yo ne of the four testing times a AM-10 AM (08-10 h) 9. If you got into bed at 1 Not at all tred	peak performance for a u are entirely free to pla ss would you choose? 11 AM-1 PM (11-13 h) 1 PM (23 h), how tired v A little tired	2:15-00:45 h) 2:15-00:45 h) a test that you kno in your day. Cons 3 PM-5 F would you be? Fair	ow is going to buildering only you wildering only you (15-17 h)	r internal clock," whi
48. You want to be at your peak performance for a test that you know is going to be mentally exhausting and will last two hours. You are entirely free to plan your day. Considering only your "internal clock," which one of the four testing times would you choose? 8 AM-10 AM (08-10 h) 11 AM-1 PM (11-13 h) 3 PM-5 PM (15-17 h) 7 PM-9 PM (19-21 h) 49. If you got into bed at 11 PM (23 h), how tired would you be? Not at all tired A little tired Fairly tired 50. For some reason you have gone to bed several hours later than usual, but there is no need to get up at any particular time the next morning. Which one of the following are you most likely to do?	peak performance for a u are entirely free to pla s would you choose? 11 AM-1 PM (11-13 h) A little tired v A little tired	2:15-00:45 h) 2:15-00:45 h) a test that you kno in your day. Cons in your day. Cons in you be? Fair al hours later than af the following an	ow is going to be idening only you M (15-17 h) M (15-17 h) n usual, but ther e you most likely	r "internal clock," while 7 PM-9 PM (19-21 h
8. You want to be at your not will last two hours. You ne of the four testing time s AM-10 AM (08-10 h) 8. AM-10 AM (08-10 h) 9. If you got into bed at 11 hot at all tred Not at all tred Will wake up at usual time, but will not fall back saleep	peak performance for a tessua are entitlely free to plan you are entitlely free after the formal free and will doze thereafter.	2:15-00:45 h) 2:15-00:45 h) a test that you kno in your day. Cons in your day. Fair would you be? Fair and Will wake up your will fail a	you know is going to bu y. Considering only you y. Considering only you y. PM-5 PM (15-17 h) be? Fairly tired Fairly tired Fairly tired Fairly tired wing are you most likely will fall asleep again	that you know is going to be mentally exhausting ur day. Considering only your "internal clock," which 3 PM-5 PM (15-17 h) 7 PM-9 PM (19-21 h) 9 you be? I you be? Fairly tired Very tire

Would not go to bed until to watch is over	the Would take a nap before sleep after	ore and Would take a good s and nap af	•	Vould sleep only before the watch
\circ	\circ	\circ		\circ
	s of hard physical work.	You are entirely free to pould you choose?	lan your day.	Considering only your
8 AM-10 AM (08-10 h)	11 AM-1 PM (11-1	3 h) 3 PM-5 PM (15	i–17 h)	7 PM-9 PM (19-21 h)
0	0	0		0
week. The best time fo well do you think you w	or her is between 10-11 l yould perform?	A friend suggests that you PM (22-23 h). Bearing in	mind only you	ur internal "clock," how
Would be in good form	Would be in reasonab	ele form Would find it d	ifficult	Would find it very difficult
	O	O		0
oreaks), your job is inte would you choose to be 5 hours starting between	eresting, and you are pai egin? 5 hours starting between 5 h	ours. Assume that you wo id based on your perform ours starting between 5 hours	nance. At appr	roximately what time on 5 hours starting between
breaks), your job is inte would you choose to be 5 hours starting between 4–8 AM (05–08 h)	eresting, and you are paregin? 5 hours starting between 5 h 8–9 AM (08–09 h) 9	ours starting between 5 hours AM-2 PM (09-14 h) 2-5	ance. At appr	roximately what time
breaks), your job is inte would you choose to be 5 hours starting between 4–8 AM (05–08 h)	eresting, and you are paregin? 5 hours starting between 5 h 8-9 AM (08-09 h) 9 hat time of day do you u	id based on your perform ours starting between 5 hour. AM-2 PM (09-14 h) 2-5 cusually feel your best?	s starting betwee	on 5 hours starting between 5 PM-4 AM (17-04 h)
breaks), your job is inte would you choose to be 5 hours starting between 4–8 AM (05–08 h)	eresting, and you are paregin? 5 hours starting between 5 h 8-9 AM (08-09 h) 9 hat time of day do you u	id based on your perform ours starting between 5 hour. AM-2 PM (09-14 h) 2-5 cusually feel your best?	nance. At appr	roximately what time on 5 hours starting between
breaks), your job is inte would you choose to be 5 hours starting between 8 4–8 AM (05–08 h) 555. At approximately wi 5–8 AM (05–08 h)	eresting, and you are paregin? 5 hours starting between 5 h 8-9 AM (08-09 h) 9 hat time of day do you u 8-10 AM (08-10 h) 10 norning types" and "ever	id based on your perform ours starting between 5 hour. AM-2 PM (09–14 h) 2–5 issually feel your best? AM-5 PM (10–17 h) 5–1	s starting between the property of these types ening type	roximately what time on 5 hours starting betweer 5 PM-4 AM (17-04 h) 10 PM-5 AM (22-05 h)
breaks), your job is inte would you choose to be 5 hours starting between \$ 4-8 AM (05-08 h) 555. At approximately w 5-8 AM (05-08 h) 566. One hears about "n yourself to be?	eresting, and you are paregin? 5 hours starting between 5 h 8-9 AM (08-09 h) 9 hat time of day do you u 8-10 AM (08-10 h) 10 norning types" and "ever	id based on your perform ours starting between 5 hour. AM-2 PM (09–14 h) 2–5 issually feel your best? AM-5 PM (10–17 h) 5–1	s starting between the property of these types ening type	roximately what time 5 hours starting betweer 5 PM-4 AM (17-04 h) 10 PM-5 AM (22-05 h) do you consider

S4: PSQI questionnaire

The Pittsburgh Sleep Quality Index (PSQI) Instructions: This questionnaire asks you about your sleep quality. Please attempt to answer every question. You do not have to answer any question you feel uncomfortable answering. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. During the past month, 63. When have you usually gone to bed? AM/PM Time 64. How long (in minutes) has it taken you to fall asleep each night? 65. When have you usually gotten up in the morning? AM/PM Time 66. How many hours of actual sleep do you get at night? (This may be different than the number of hours you spend in bed)

Not d	uring the past month L	ess than once a week	Once or twice a wee	Three or more times a k week
Cannot get to sleep vithin 30 minutes	0	0	0	0
Nake up in the middle of he night or early norning	\circ	\circ	\circ	\circ
Have to get up to use he bathroom	0	\circ	0	0
Cannot breathe comfortably	\circ	\bigcirc	\bigcirc	\circ
Cough or snore loudly	0	\bigcirc		\circ
Feel too cold	\bigcirc	\bigcirc		\circ
Feel too hot	0	0		0
Have bad dreams	0	0		0
Have pain	0	0		0
Other reason(s) 3. During the past month, ou sleep?	how often have you	u taken medicine (p	rescribed or "over	the counter") to help
3. During the past month,	how often have you	_		
B. During the past month, ou sleep?		_		
B. During the past month, ou sleep?	Less than once a	week Once o	r twice a week	Three or more times a week
3. During the past month, bu sleep? Not during the past month O. During the past month,	Less than once a	week Once o	r twice a week	Three or more times a week
B. During the past month, bu sleep? Not during the past month D. During the past month, agaging in social activity?	Less than once a	week Once o	r twice a week	Three or more times a week
B. During the past month, bu sleep? Not during the past month D. During the past month, agaging in social activity?	Less than once a how often have you Less than once a	week Once o u had trouble stayin week Once o	r twice a week	ing, eating meals, or
B. During the past month, bu sleep? Not during the past month D. During the past month, agaging in social activity? Not during the past month D. During the past month	Less than once a how often have you Less than once a	week Once of the desired of the desi	r twice a week g awake while driv r twice a week r you to keep up er	Three or more times a week ing, eating meals, or Three or more times a week
3. During the past month, bu sleep? Not during the past month 2. During the past month, agaging in social activity? Not during the past month 2. During the past month	Less than once a how often have you Less than once a how much of a pro	week Once of the desired of the desi	r twice a week g awake while driv r twice a week r you to keep up er	ing, eating meals, or Three or more times a week
3. During the past month, bu sleep? Not during the past month 2. During the past month, agaging in social activity? Not during the past month 2. During the past month	Less than once a how often have you Less than once a how much of a pro	week Once of the control of the cont	r twice a week g awake while driv r twice a week r you to keep up er	ing, eating meals, or Three or more times a week
3. During the past month, bu sleep? Not during the past month 3. During the past month, agaging in social activity? Not during the past month 3. During the past month 4. During the past month 5. During the past month 6. During the past month	Less than once a how often have you Less than once a how much of a pro	week Once of the desired value	r twice a week g awake while driv r twice a week r you to keep up er	ing, eating meals, or Three or more times a week

S5: Results table of all correlation analyses

			Correl	ation analysis	P-values	
Metric	Device	Fitbit	Hexoskin	SRSM	Withings	Oura
TSD	Fitbit	_	5.12e-13***	7.67e-09***	1.17e-12***	3.87e-07***
	Hexoskin	5.12e-13***	_	5.12e-09***	3.78e-12***	3.68e-04***
	SRSM	7.67e-09***	5.12e-09***	_	1.16e-08***	3.55e-03***
	Withings	1.17e-12***	3.78e-12***	1.16e-08***	_	7.94e-07***
	Oura	3.87e-07***	3.68e-04***	3.55e-03***	7.94e-07***	_
REM	Hexoskin	_	_	_	1.98e-04***	1.24e-02**
	Withings	_	1.98e-04***	_	_	1.06e-06***
	Oura	_	1.24e-02**	_	1.06e-06***	_
Overall	Hexoskin	_	_	_	<2.20e-16***	<2.20e-16***
Sleep Stages	Withings	_	<2.20e-16***	_	_	<2.20e-16***
	Oura	_	<2.20e-16***	_	<2.20e-16***	_

Note: * P < 0.1; ** P < 0.05; *** P < 0.01; TSD refers to total sleep duration; REM refers to rapid eye movement sleep stage; SRSM refers to self-reported sleep metrics. Note that the results from the Kendall's rank correlation test returned P values below the threshold of reporting in the R programming language and thus were reported as less than the threshold returned in the test outputs.

S6: Univariate analyses comparing morning cognitive scores to device data

		Mornin	g Cognit	ive Scor	es
Device	Feature	Coefficient	Std.	P-	R ²
			Error	Value	
Fitbit	TSD	-0.003	0.014	0.825	0.004
	Wakeups	-0.018	0.018	0.329	0.068
Withings	TSD	-0.018	0.010	0.110	0.172
	Latency	.015	0.091	0.869	0.002
	Efficiency	-0.001	0.001	0.315	0.072
	Wakeups	.001	0.001	0.888	0.001

	REM	-0.039	0.040	0.342	0.065
Oura	TSD	-0.022	0.019	0.265	0.088
	Latency	-0.105	0.113	0.366	0.059
	Efficiency	0.002	0.002	0.285	0.081
	Wakeups	-0.018	0.014	0.226	0.103
	REM	-0.008	0.0173	0.656	0.015
Hexoskin	TSD	-0.020	0.015	0.206	0.112
	Latency	-0.001	0.096	0.995	0.000
	Efficiency	0.003	0.005	0.530	0.029
	REM	-0.071	0.044	0.128	0.158
SRSM	TSD	-0.005	0.014	0.725	0.009
	Latency	-0.008	0.091	0.935	0.000
Observations		16			

Note: * P < 0.1; *** P < 0.05; *** P < 0.01; SRSM refers to self-reported sleep metrics.

S7: Univariate analyses comparing afternoon cognitive scores to device data

		Aftern	oon Cogi	nitive Score	es
Device	Feature	Coefficient	Std.	P-Value	R ²
			Error		
Fitbit	TSD	-0.016	0.024	0.511	0.026
	Wakeups	0.014	0.033	0.672	0.011
Withings	TSD	-0.013	0.019	0.497	0.028
	Latency	-0.272	0.101	0.0158**	0.297
	Efficiency	0.003	0.002	0.148	0.099
	Wakeups	-0.0153	0.0163	0.361	0.049
	REM	-0.036	0.071	0.617	0.015
Oura	TSD	0.036	0.027	0.197	0.096
	Latency	0.138	0.200	0.499	0.027
	Efficiency	0.004	0.004	0.332	0.055
	Wakeups	0.025	0.018	0.184	0.101
	REM	0.010	0.028	0.732	0.007
Hexoskin	TSD	-0.028	0.026	0.289	0.066
	Latency	0.113	0.157	0.481	0.030
	Efficiency	-0.006	0.009	0.527	0.024
	REM	-0.103	0.074	0.186	0.101
SRSM	TSD	-0.022	0.023	0.361	0.049
	Latency	0.197	0.151	0.210	0.091
Observations		19			

Note: * P < 0.1; *** P < 0.05; *** P < 0.01; SRSM refers to self-reported sleep metrics.

S8: Univariate analyses comparing evening cognitive scores to device data

		Eveni	ng Cogn	itive Scor	es
Device	Feature	Coefficient	Std.	P-	R ²
			Error	Value	
Fitbit	TSD	-0.012	0.023	0.61	0.017
	Wakeups	0.006	0.032	0.857	0.002
Withings	TSD	-0.016	0.018	0.409	0.043
	Latency	-0.271	0.097	0.013**	0.327
	Efficiency	0.002	0.002	0.194	0.103
	Wakeups	-0.015	0.016	0.378	0.049
	REM	-0.041	0.069	0.557	0.022
Oura	TSD	0.034	0.026	0.221	0.092
	Latency	0.116	0.196	0.563	0.021
	Efficiency	0.004	0.004	0.301	0.067
	Wakeups	0.021	0.019	0.289	0.070
	REM	0.011	0.028	0.713	0.009
Hexoskin	TSD	-0.031	0.025	0.235	0.087
	Latency	0.057	0.156	0.718	0.008
	Efficiency	-0.002	0.009	0.798	0.004
	REM	-0.108	0.077	0.180	0.109
SRSM	TSD	-0.025	0.022	0.273	0.075
	Latency	0.177	0.152	0.261	0.078
Observations		18			

Note: * P < 0.1; *** P < 0.05; *** P < 0.01; SRSM refers to self-reported sleep metrics.

S9: Univariate analyses comparing morning cognitive scores to participant summary data

	Morning Cognitive Scores					
Feature	Coefficient	Std. Error	P-Value	R ²		
PSQI	-0.003	0.005	0.531	0.029		
MEQ	-0.001	0.002	0.529	0.029		
Emotional Role	0.0003	0.001	0.665	0.014		
Limitations						
Energy	0.0003	0.001	0.700	0.011		
General Health	-0.001	0.004	0.769	0.006		
Physical	0.003	0.001	0.014**	0.358		
Social	0.002	0.001	0.170	0.130		

Well-being	0.002	0.001	0.078*	0.206
Observations	16			

Note: * P < 0.1; ** P < 0.05; *** P < 0.01.

S10: Univariate analyses comparing afternoon cognitive scores to participant summary data

	Afternoon Cognitive Score					
Feature	Coefficient	Std. Error	P-Value	R^2		
PSQI	-0.013	0.007	0.083*	0.167		
MEQ	0.005	0.003	0.057*	0.197		
Emotional Role	0.002	0.001	0.005***	0.382		
Limitations						
Energy	0.003	0.001	0.018**	0.288		
General Health	-0.002	0.007	0.823	0.003		
Physical	0.001	0.330	0.745	0.006		
Social	0.005	0.001	0.004***	0.397		
Well-being	0.004	0.001	0.005***	0.379		
Observations	19					

Note: * P < 0.1; ** P < 0.05; *** P < 0.01.

S11: Univariate analyses comparing evening cognitive scores to participant summary data

	Evening Cognitive Scores			
Feature	Coefficient	Std. Error	P-Value	R ²
PSQI	-0.014	0.007	0.057**	0.208
MEQ	0.004	0.003	0.12	0.144
Emotional Role Limitations	0.002	0.001	0.003***	0.438
Energy	0.003	0.001	0.010***	0.345
General Health	0.0003	0.008	0.961	0.0001
Physical	0.001	0.003	0.597	0.018
Social	0.005	0.001	0.002***	0.463
Well-being	0.004	0.001	0.001***	0.500
Observations	18			

Note: * P < 0.1; ** P < 0.05; *** P < 0.01.