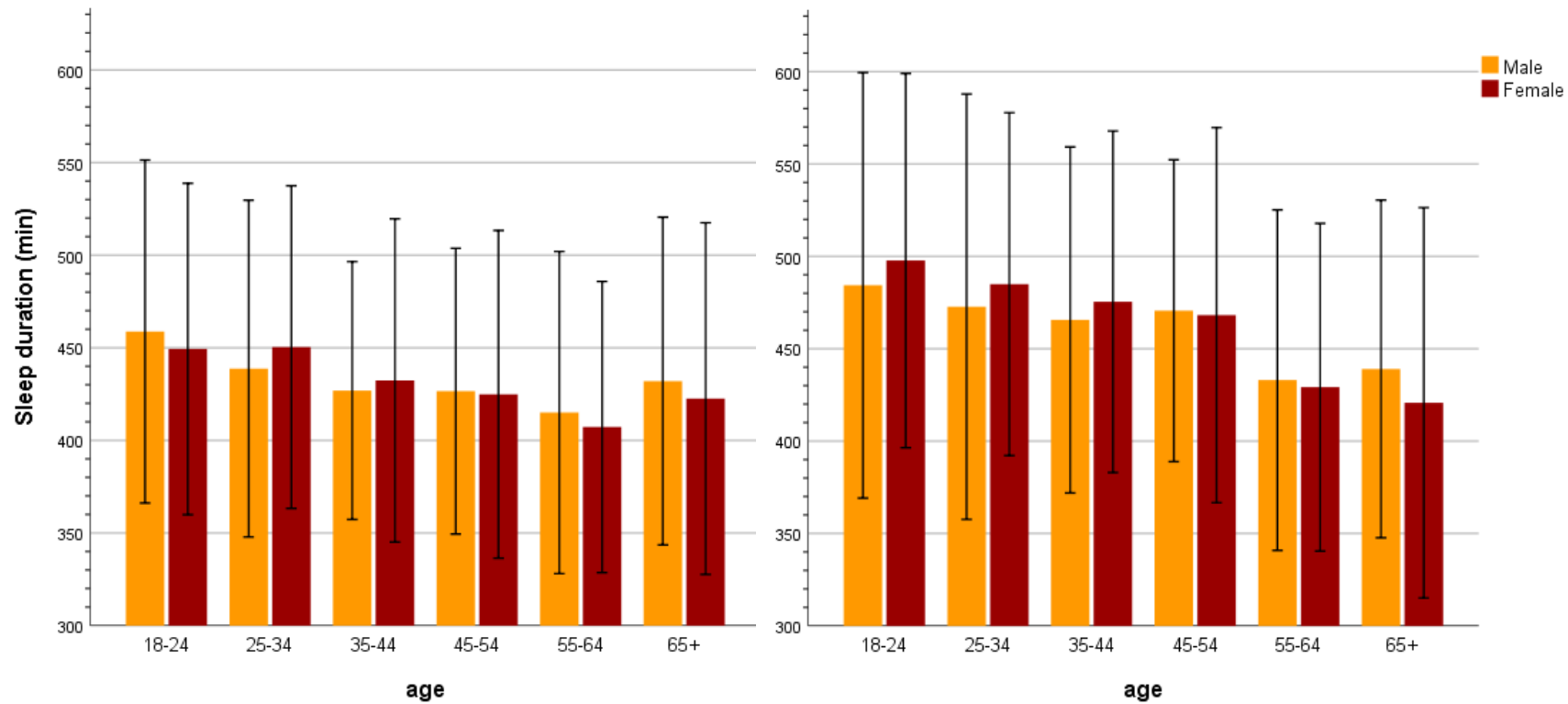


Supplementary Material

Supplementary Table 1. Participant socio-demographic characteristics (% , n)

Socio-demographic characteristic		%	n
Sex	Male	48.6	994
	Female	51.3	1048
	Other	0.1	2
Age, years	18 to 24	11.3	231
	25 to 34	18.5	378
	35 to 44	19.4	397
	45 to 54	16.7	342
	55 to 64	15.2	311
	65 to 74	12.2	249
	75 or over	6.6	134
Region of residence	Metro	69.2	1414
	Rural/regional	30.8	628
Language spoken at home	English	91.7	1872
	Other	8.3	170
Highest education	Still studying	3.1	63
	High school or less	22.5	459
	Trade qualification	8.1	165
	Certificate/Diploma	31.0	633
	Bachelor degree/higher	33.8	691
	Refused	1.6	33
Work status	Full-time	29.8	610
	Part-time	19.5	398
	Student	5.7	115
	Homemaker	9.2	188
	Unemployed	7.1	145
	Retired	20.5	418
	Unable to work due to disability	5.0	103
	Volunteer, other, refused, don't know	3.2	66
Household income	<\$20,000	7.4	151
	\$20,001-\$40,000	19.2	392
	\$40,001-\$60,000	16.9	345
	\$60,001-\$80,000	11.9	242
	\$80,001-\$100,000	10.6	217
	\$100,001-\$150,000	14.6	298
	>\$150,000	7.2	147
	Don't know/not stated	12.2	250
Family's financial stress	Spend more than earn/get	11.0	225
	Get by	27.7	565
	Bit left over saved or spent	44.0	899
	Saves a lot	12.3	251
	Don't know	5.0	102
Marital status	Married/Partner	58.7	1199
	Divorced/separated/widowed/never married	41.0	839
	Not stated	6	0.3
Country of Birth	Australia	77.7	1574
	UK/Ireland	6.7	135
	Europe	3.4	68
	Americas (North, South)	0.5	11
	Asia	9.0	182
	New Zealand/Pacific Islands	2.8	56

Supplementary Figure 1. Mean (SD) sleep duration (minutes) on weekdays/before workdays (panel A) and weekends/before non-workdays (panel B) in relation to age and sex.



ANOVA p for differences in mean week day/work day sleep duration across age groups in males $p=0.015$, females <0.001 .

ANOVA p for differences in mean weekend/non-work day sleep duration across age groups in males $p<0.001$, females <0.001 .

Supplementary Table 2. Prevalence of insomnia symptoms [% (95%CI)] by sex, age, and definition in the total sample.

	No DIMS +/- daytime problems	≥1 Acute DIMS +/- daytime problems	No daytime symptoms	≥1 Chronic DIMS ≥ 1 chronic daytime symptom + TIB <7.5hr	≥ 1 chronic daytime symptom + TIB ≥7.5hr (Insomnia)	p value
Overall, n	830	183	243	200	548	
% (95% CI)	41.4 (39.3-43.6)	9.1 (7.9-10.5)	12.1 (10.8-13.6)	10.0 (8.7-11.4)	27.3 (25.4-29.3)	
Sex						<0.001
Males, n	425	72	146	93	239	
% (95% CI)	43.6 (40.5-46.7)	7.4 (5.9-9.2)	15.0 (12.8-17.3)	9.5 (7.8-11.5)	24.5 (21.9-27.3)	
Females, n	405	111	97	107	309	
% (95% CI)	39.4 (36.4-42.4)	10.8 (9.0-12.8)	9.4 (7.8-11.3)	10.4 (8.6-12.4)	30.0 (27.3-32.9)	
Males						<0.001
Age <55y	44.7 (40.1-49.3)	12.2 (9.4-15.5)	8.8 (6.4-11.7)	11.3 (8.6-14.5)	23.0 (19.3-27.1)	
Age ≥55y	42.7 (38.5-46.9)	3.4 (2.1-5.2)	20.1 (16.9-23.7)	8.1 (6.0-10.6)	25.8 (22.2-29.6)	
Females						0.007
Age <55y	39.0 (35.9-42.3)	11.8 (9.8-14.1)	8.4 (6.7-10.4)	10.1 (8.2-12.2)	30.6 (27.7-33.8)	
Age ≥55y	41.2 (33.5-49.3)	4.7 (2.1-9.1)	15.5 (10.4-22.0)	12.2 (7.6-18.1)	26.4 (19.8-33.9)	

DIMS- Difficulties initiating or maintaining sleep

TIB: Time in bed on work or weekdays

n for sample =2006 due to missing time in bed data for chronic DIMS and daytime symptoms

Chi² p-value for distribution across insomnia categories males vs females within age <55 years p=0.064, within age ≥55y p=0.39.

Supplementary Table 3. Socio-demographic characteristics of participants (% , n) in relation to insomnia status in participants without frequent pain-related sleep disturbance.

	NO DIMS		ACUTE DIMS		CHRONIC DIMS		CHRONIC DIMS		Total	
	+/- daytime problems		+/- daytime problems		No daytime problem		≥ 1 chronic daytime problem + TIB <7.5hr		≥ 1 chronic daytime problem + TIB ≥7.5hr (Insomnia)	
	(n=791)		(n=165)		(n=227)		(n=147)		(n=402)	
	%	n	%	n	%	n	%	n	%	n
Sex			<i>p</i> =0.008		<i>p</i> =0.027		<i>p</i> =0.20		<i>p</i> =0.036	
Male	50.7	401	39.4	65	59.0	134	44.9	66	44.3	178
Female	49.3	390	60.6	100	41.0	93	55.1	81	55.7	224
Age, mean (SD)	47.1	(17)	<i>p</i> <0.001		<i>p</i> <0.001		<i>p</i> =0.95		<i>p</i> =0.43	
Age, mean (SD)	47.1	(17)	37.9	(15)	54.3	(17)	46.1	(15)	45.3	(17)
Residential area			<i>p</i> =0.81		<i>p</i> =0.11		<i>p</i> =0.32		<i>p</i> =0.53	
Metro	71.2	563	72.1	119	65.6	149	75.2	112	69.4	279
Rural/regional	28.8	228	27.9	46	34.4	78	24.8	37	30.6	123
Main language spoken at home			<i>p</i> =0.25		<i>p</i> <0.001		<i>p</i> =0.052		<i>p</i> <0.001	
English	88.6	701	85.5	141	95.6	217	94.0	140	95.8	385
Other	11.4	90	14.5	24	4.4	10	6.0	9	4.2	17
Family financial stress			<i>p</i> =0.48		<i>p</i> =0.29		<i>p</i> =0.35		<i>p</i> =0.044	
Spend more than get	9.8	73	12.8	19	6.4	14	12.6	18	11.3	44
Bit left over saved or spent	75.2	559	74.3	110	77.6	170	76.2	109	79.0	308
Saves a lot	14.9	111	12.8	19	16.0	35	11.2	16	9.7	38
Annual household income			<i>p</i> =0.44		<i>p</i> =0.72		<i>p</i> =0.82		<i>p</i> =0.67	
<\$20,000	7.5	51	10.4	14	5.6	11	5.9	8	7.0	26
\$20,001-\$40,000	20.4	139	15.7	21	23.6	46	23.7	32	22.9	85
\$40,001-\$80,000	32.1	218	37.3	50	33.8	66	30.4	41	34.2	127
\$80,001-\$100,000	13.1	89	11.9	16	11.3	22	11.1	15	11.1	41
≥ \$100,000	26.9	183	24.6	33	25.6	50	28.9	39	24.8	92
Highest education attained			<i>p</i> =0.33		<i>p</i> =0.010		<i>p</i> =0.34		<i>P</i> =0.008	
Still studying	2.8	22	5.0	8	3.1	7	3.4	5	2.0	8
High school	21.6	168	17.4	28	25.3	57	26.5	39	22.3	88
Diploma/certificate/Trade	34.7	270	37.9	61	43.1	97	36.7	54	43.8	173
Bachelor degree or higher	40.8	317	39.8	64	28.4	64	33.3	49	31.9	126
Country of birth			<i>p</i> =0.10		<i>p</i> =0.002		<i>p</i> =0.087		<i>p</i> =0.001	
Australia/Pacific	77.1	602	79.8	130	75.3	171	83.8	124	85.0	341
UK/Ireland/Europe/ Americas	10.8	84	5.5	9	18.1	41	10.1	15	9.2	37
Asia	12.2	95	14.7	24	6.6	15	6.1	9	5.7	23
Work status			<i>p</i> =0.012		<i>p</i> <0.001		<i>P</i> =0.067		<i>p</i> =0.032	
Full time	34.8	275	33.9	56	21.1	48	34.9	52	26.4	106
Part-time	19.6	155	18.8	31	20.3	46	24.2	36	21.1	85
Student	5.4	43	9.1	15	4.0	9	4.0	6	6.7	27
Homemaker	7.6	60	11.5	19	9.7	22	9.4	14	11.7	47
Unemployed	6.3	50	9.7	16	4.8	11	7.4	11	8.0	32
Retired	20.7	164	9.7	16	34.4	78	11.4	17	19.7	79
Unable to work disability	2.5	20	2.4	4	3.5	8	6.0	9	4.0	16
Volunteer, other, refused	3.0	24	4.8	8	2.2	5	2.7	4	2.5	10

DIMS- difficulties initiating or maintaining sleep

TIB- Time in bed during the week ≥ 7.5 hrs

p-values identify significant differences in distribution of demographic variables compared to No DIMS group.

Missing data (refused, don't know) for sociodemographic variables for financial stress n=103, household income n=250, highest education n=33, country of birth n=16.