

SUPPLEMENT 1

Table S1. PSQI components before and during WH in the whole sample. Contingency table with number of subjects in the whole sample for each PSQI components' score (range 0-3, with higher scores implying greater difficulties), before WH (pre-WH) and during WH (n=737).

Subjective sleep quality					<i>p value</i> ¹
WH					
		0	1	2-3	Total (%)
Pre-WH	0	70	24	4	13.3
	1	45	365	53	62.8
	2-3	7	63	106	23.9
	Total (%)	16.6	61.3	22.1	
Sleep latency					
WH					
		0	1	2-3	Total (%)
Pre-WH	0	199	74	8	38.1
	1	43	329	36	55.4
	2-3	4	15	29	6.5
	Total (%)	33.4	56.7	9.9	
Sleep duration					
WH					
		0	1	2-3	Total (%)
Pre-WH	0	140	29	14	25.0
	1	93	168	42	41.2
	2-3	20	86	143	33.8
	Total (%)	34.3	38.4	27.3	
Sleep efficiency					
WH					
		0	1	2-3	Total (%)
Pre-WH	0	441	69	25	72.6
	1	73	51	17	19.1
	2-3	9	14	38	8.3
	Total (%)	70.9	18.2	10.9	
Sleep disturbances					
WH					
		0-1 ²	2-3	Total (%)	<<0.001
Pre-WH	0-1 ²	546	632	81.3	
	2-3	31	107	18.7	
	Total (%)	77.0	23.0		
Use of sleep medications					
WH					
		0	1	2-3	Total (%)
Pre-WH	0	615	14	14	87.2
	1	13	27	8	6.5
	2-3	8	5	33	6.2
	Total (%)	86.3	6.2	7.5	
Daytime dysfunction					
WH					
		0	1	2-3	Total (%)
Pre-WH	0	428	19	33	65.1
	1	20	49	24	12.6
	2-3	72	13	79	22.3
	Total (%)	70.6	11.0	18.4	

¹ Stuart-Maxwell test. Numbers of subjects with score 2 and 3 were grouped due to the low number of subjects in individual scores.

² Numbers of subjects with score 0 and 1 were grouped due to the low number of subjects in individual scores.

SUPPLEMENT 2

Table S2. Association of overall sleep quality (total PSQI score) with sociodemographic and work-related characteristics of the participants. Chi-square test for categorical variable, Wilcoxon test or Kruskal-Wallis test with Bonferroni correction for continuous variables. Very low frequencies have been aggregated with those of neighboring classes for both statistical (chi-squared test) and regulatory reasons, where possible. Otherwise, the low frequencies were not reported, in compliance with the Italian legislation on the protection of personal data (Deontological rules for processing for statistical or scientific research purposes carried out within the National Statistical System, resolution n. 514/2018). For the sake of comparison, these aggregations were made in the same way for all the other confounding variables, regardless of the actual number in the specific cells.

PSQI ^{1,2}	GENDER				
	Men	Women	p-value		
Pre-pandemic	3 (1, 5)	4 (2, 6)	<<0.001		
During WH	3 (1, 5)	4 (2, 6)	<<0.001		
Change during WH compared with pre-WH	-2 (-4, 0)	-1 (-3, 1)	0.41		
	AGE				
	≤39 ys	40-49	50-59	≥60 ys	p-value
Pre-pandemic	5 (3,6)	5 (4,6)	5 (4,7)	5 (4,7)	0.24
During WH	5 (3,6)	5 (3,7)	5 (3,7)	5 (4,7)	0.64
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0.81
	LIVING ALONE OR NOT DURING THE PANDEMIC				
	Not alone	Alone	p-value		
Pre-pandemic	5 (4, 6)	5 (4, 7)	0.54		
During WH	5 (3, 6)	5 (3, 7)	0.35		
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0.03 ³		
	PROFESSIONAL PROFILE				
	Technical staff	Administrat. staff	Technologist	Researcher	p-value
Pre-pandemic	5 (4, 7)	6 (5, 7)	5 (4, 7)	5 (3, 6)	<<0.001 ⁴
During WH	5 (4, 7)	5 (4, 8)	5 (4, 7)	4 (3, 6)	0.004 ⁴
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0.70
	CAREGIVING TASKS FOR COHABITING PEOPLE				
	No	Yes	p-value		
Pre-pandemic	5 (4, 6)	5 (4, 7)	0.48		

During WH	5 (3,7)	4 (3, 5.5)	0.05		
Change during WH compared with pre-WH	0 (-1, 1)	0 (-2, 1)	0.03 ³		
	CAREGIVING TASKS FOR NON-COHABITING PEOPLE				
	No	Yes	p-value		
Pre-pandemic	3 (2, 5)	4 (2, 6)	0.02 ³		
During WH	5 (3, 6)	5 (4, 7)	0.02 ³		
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0.63		
	MACRO-REGION				
	North	Centre	South	Islands	p-value
Pre-pandemic	5 (4, 6)	5 (4, 7)	5 (4, 6)	5 (4, 6)	0.90
During WH	5 (3, 6)	5 (3, 7)	5 (3, 6)	5 (3, 6)	0.84
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0.98
	HOME-WORK COMMUTING TIME				
	<15 min	15-30 min.	30-60 min.	>60 min	p-value
Pre-pandemic	5 (4, 6)	5 (3, 6)	5 (4, 7)	5 (4, 7)	0.18
During WH	5 (3, 7)	5 (3, 6)	5 (4, 7)	5 (3, 6)	0.39
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	-1 (-1, 1)	0.12
	TYPE OF WORKROOM AT HOME				
	Different rooms, with circumstances	Fixed and already used as a studio	Fixed and temporarily used as a studio	Fixed but not used as a studio	p-value
Pre-pandemic	5 (4, 6)	5 (3.5, 7)	5 (4, 6)	5 (4, 6.5)	0.63
During WH	5 (4, 6)	5 (3, 7)	5 (3, 6.5)	5 (3, 6.5)	0.90
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0 (-1, 0)	0.11
	FREQUENCY OF SHARING OF THE WORKROOM AT HOME				
	Never	Occasionally	Often or always	p-value	
Pre-pandemic	5 (4, 7)	5 (4, 6)	5 (4, 6)	0.48	
During WH	5 (3, 7)	5 (3, 6)	5 (4, 7)	0.44	
Change during WH compared with pre-WH	0 (-1, 1)	0 (-1, 1)	0 (-1, 1)	0.05 ⁵	

¹ Median and inter-quartile interval.

² 737 respondents.

³ The estimated difference is negligible.

⁴ The total score of Researchers is significantly lower than the total score of both Technical and Administrative staff. The estimated difference is of -1.

⁵ All the pairwise comparisons are not significant.

SUPPLEMENT 3

Table S3. PSQI components before and during WH in poor and good sleepers. Contingency table with number of subjects in the poor sleeper group (n=285) and the good sleeper group (n=452) for each components' score (range 0-3, with higher scores implying greater difficulties), before WH (pre-WH) and during WH. The p-values refer to the McNemar test. Score aggregation was used to handle low counts.

Subjective sleep quality					p-value
Poor sleepers					
Pre-WH		WH		Total (%)	<0.001
		0-1	2-3		
		122	20	49.8	
	2-3	57	86	50.2	
	Total (%)	62.8	37.2		
Good sleepers					
Pre-WH		WH		Total (%)	0.001
		0-1	2-3		
		382	37	92.7	
	2-3	13	20	7.3	
	Total (%)	87.4	12.6		
Sleep latency					
Poor sleepers					
Pre-WH		WH		Total (%)	0.75
		0-1	2-3		
		217	21	83.5	
	2-3	18	29	16.5	
	Total (%)	82.5	17.5		
Good sleepers					
Pre-WH		WH		Total (%)	<0.001 ¹
		0-1	2-3		
		0-1	2-3		
	Total (%)				
Sleep duration					
Poor sleepers					
Pre-WH		WH		Total (%)	<<0.001
		0-1	2-3		
		86	16	35.8	
	2-3	69	114	64.2	
	Total (%)	54.4	45.6		
Good sleepers					
Pre-WH		WH		Total (%)	0.65
		0-1	2-3		
		344	42	85.4	
	2-3	37	29	14.6	
	Total (%)	84.3	15.7		
Sleep efficiency					
Poor sleepers					
Pre-WH		WH		Total (%)	0.77
		0-1	2-3		
		200	25	78.9	
	2-3	22	38	21.1	
	Total (%)	77.9	22.1		
Good sleepers					
Pre-WH		WH		Total (%)	<0.001 ¹
		0-1	2-3		
		0-1	2-3		
	Total (%)				

Sleep disturbances					
Poor sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1	172	16	66.0	0.21
	2-3	25	72	34.0	
	Total (%)	69.1	30.9		
Good sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1	364	47	90.9	<<0.001
	2-3	6	35	9.1	
	Total (%)	81.9	18.1		
Use of sleep medications					
Poor sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1	231	11	84.9	1
	2-3	11	32	15.1	
	Total (%)	84.9	15.1		
Good sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1				0.03 ¹
	2-3				
	Total (%)				
Daytime dysfunction					
Poor sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1	181	21	70.9	0.001
	2-3	49	34	29.1	
	Total (%)	80.7	19.3		
Good sleepers					
		WH		Total (%)	
		0-1	2-3		
Pre-WH	0-1	335	36	82.1	1
	2-3	36	45	17.9	
	Total (%)	82.1	17.9		

¹ Data not reported in compliance with the Italian legislation on the protection of personal data (Deontological rules for processing for statistical or scientific research purposes carried out within the National Statistical System, Resolution no. 514/2018).