

**Table 1.** *Descriptive characteristics of the total sample*

<i>Study variables</i>	
Age in years ( <i>M</i> , <i>SD</i> )	43.89 (13.10)
Sex	
Male	85.9%
Female	13.1%
Preferred not to answer	1.0%
Race	
White	76.0%
Black	9.1%
Asian	4.5%
Hispanic or Latino	3.1%
More than one race	5.6%
Others	1.7%
Education level	
Associate or diploma	27.0%
Bachelor's degree	57.7%
Master's or doctoral degree	15.3%
Married or with partner, Yes	62.9%
Dependents, Yes	44.8%
Subjective health status ( <i>M</i> , <i>SD</i> )	3.28 (0.89)
Body mass index ( <i>M</i> , <i>SD</i> )	28.61 (6.57)
30-min+ physical activity, Yes	67.6%
Sleeps < 7 h during work days	76.4%
Years of nursing experience	
≤ 2	14.9%
3 to 8	31.9%
9 to 14	15.2%
15 to 20	8.8%
20+	29.2%
Full time work status	86.6%
Shift type	
Day	52.3%
Night	39.4%
Rotating	5.4%
Atypical start times	2.8%
≤ 40 h work hours per week	61.4%
Second job, Yes	17.7%
Unit of practice	

Emergency department	16.1%
Medical surgical	27.9%
Intensive care / Step down	33.5%
OBGYN / Labor-delivery	8.8%
Pediatric care	5.3%
Specialty units	7.4%
Float	0.9%
Hospital size	
≤ 100 beds	12.9%
101-250 beds	31.4%
> 250 beds	55.7%
Hospital status	
Magnet hospital	28.2%
Journey towards Magnet	10.3%
Not a Magnet hospital	45.8%
I don't know	15.7%

---

**Table 2.** Summary of nurses' rest break characteristics, content, frequency and duration of rest break activities during 12-hour shifts.

<i>Rest break characteristics</i>		<i>N (%)</i>		<i>M (SD)</i>
*Likelihood of taking breaks				2.31 (0.91)
Number of breaks during a shift				
0		26.1%		
1		58.5%		
2+		15.4%		
*Psychological detachment during rest breaks				2.55 (1.11)
*I worry about work during my rest breaks				3.68 (1.11)
*I typically take uninterrupted rest breaks				2.11 (1.09)
*I decide myself how to spend my rest breaks				3.01 (1.30)
*I feel relaxed after my rest break				2.05 (0.94)
<i>Content</i>	<i>Yes</i>	<i>Break frequency</i>		<i>Duration (min)</i>
		<i>1 time</i>	<i>≥ 2 times</i>	
<i>Rest break activity</i>	<i>N (%)</i>			<i>M (SD)</i>
Eat a meal or lunch	75.7%	91.4%	8.6%	23.28 (9.05)
Eat a snack	58.2%	74.8%	25.2%	8.39 (6.64)
Browse internet for non-work related reasons	50.4%	70.6%	29.4%	13.44 (10.52)
Drink coffee, tea, water or juice	39.2%	69.9%	30.1%	7.86 (6.56)
Chat with friends or co-workers	35.7%	59.8%	40.2%	11.26 (10.86)
Make phone calls to or text family and friends	29.6%	85.7%	14.3%	9.33 (8.76)
Listen to music or watch videos	12.7%	73.7%	26.3%	19.87 (12.88)
Read a book or newspaper	8.9%	82.8%	17.2%	15.28 (11.20)
Take a short nap	9.9%	88.2%	11.8%	24.64 (11.46)
Take a walk outside hospital	8.8%	94.5%	5.5%	13.95 (11.08)
Chart and work while eating	2.4%	76.5%	23.5%	20.44 (11.14)
Run a quick personal errand	2.6%	78.9%	21.1%	17.37 (7.52)

Note. \*The items are on a 5-point rating scale: never-1, rarely-2, sometimes-3, often-4, always-5

**Table 3.** *Summary of the situations that interfere with nurses' decision to take rest breaks.*

<i>Context of rest breaks</i>	<i>M (SD)</i>
Patient acuity	4.36 (0.93)
Peak times for patient admissions or discharges	3.72 (1.30)
Timing of patients' scheduled procedures or medications	4.07 (1.14)
Patients who are difficult or demanding	4.07 (1.05)
Be present during patient procedures	3.92 (1.20)
Medical team rounds	3.20 (1.44)
Family visits	2.73 (1.27)
Nursing tasks left to do	4.39 (0.89)
Staffing shortage	4.35 (0.95)
Co-workers' years of experience and competence on the unit	3.18 (1.30)
Co-workers are friends	2.99 (1.17)
PPE shortage under strict isolation	2.68 (1.38)
Difficulty undressing PPE to leave unit	2.62 (1.39)

*Note.* The items are on a 5-point rating scale: never-1, rarely-2, sometimes-3, often-4, always-5

**Table 3.** Multiple linear regression results for predicting acute fatigue from rest breaks and nursing staff's delivery of COVID-19 patient care.

Parameter	Adjusted model		Stratified models by COVID-19 patient care	
	$\beta$ [95% CI], $p$		No, $\beta$ [95% CI], $p$	Yes, $\beta$ [95% CI], $p$
<b>Rest breaks</b>				
Never, rarely		Ref	Ref	Ref
Sometimes	1.04 [-1.68, 3.77], .452		0.81 [-3.24, 4.86], .694	1.47 [-2.26, 5.20], .439
Often, always	-2.81 [-7.17, 1.54], .205		-8.13 [-14.62, -1.64], .014	2.79 [-3.07, 8.66], .350
<b>Frequency of breaks</b>				
0		Ref	Ref	Ref
1	0.97 [-1.97, 3.92], .516		1.35 [-3.17, 5.87], .557	0.32 [-3.55, 4.18], .872
2+	-1.90 [-6.37, 2.57], .404		1.46 [-5.20, 8.13], .666	-5.16 [-11.30, 0.97], .099
Psychological detachment	-0.17 [-1.31, 0.98], .774		-2.11 [-3.91, -0.31], .022	1.33 [-0.16, 2.83], .081
<b>Type of rest breaks</b>				
<b>Nutrition</b>				
None		Ref	Ref	Ref
1 type	3.47 [-0.90, 7.85], .120		2.17 [-5.16, 9.49], .561	3.62 [-1.72, 8.96], .183
2 or more types	3.42 [-1.04, 7.90], .133		1.02 [-6.45, 8.50], .788	3.94 [-1.53, 9.41], .158
<b>Relaxation</b>				
None		Ref	Ref	Ref
1 type	0.92 [-2.05, 3.89], .542		1.44 [-3.13, 6.02], .535	0.13 [-3.77, 4.04], .945
2 or more types	-4.13 [-8.69, 0.42], .075		0.27 [-7.23, 7.78], .943	-6.20 [-11.90, -0.50], .033
<b>Social</b>				
None		Ref	Ref	Ref
1 type	2.17 [-0.29, 4.64], .084		1.28 [-2.41, 4.98], .494	2.58 [-0.73, 5.89], .127
2 or more types	-1.98 [-5.41, 1.44], .256		-5.37 [-10.53, -0.22], .041	1.24 [-3.32, 5.81], .593
<b>Cognitive</b>				
None		Ref	Ref	Ref
1 type	-0.95 [-3.47, 1.57], .459		0.05 [-3.74, 3.83], .981	-2.54 [-5.96, 0.87], .144
2 or more types	-4.10 [-8.52, 0.31], .069		-4.14 [-10.91, 2.63], .230	-2.14 [-7.95, 3.68], .470
<b>COVID-19 pt. care</b>				
No		Ref		
Yes	-1.21 [-3.41, 1.00], .284			
<i>F</i> value		16.03	10.46	7.55
Adjusted $R^2$		0.353	0.408	0.306

*Note.* In Stata 15.1 software, the final model was adjusted for work (shift type, worked hours, workload, personal accomplishment), health (chronic fatigue, health status, psychological distress, sleep hours) and demographic (age, gender) covariates.