

# States of workaholism and daily relationships with sleep quality and recovery experiences

Luca Menghini Ph.D.,<sup>1</sup> & Cristian Balducci Ph.D.<sup>2</sup>

1. Dep. of General Psychology, University of Padova, Italy
2. Dep. of Psychology, University of Bologna, Italy



**XXI Conference EU Association of Work and Organizational Psychology**

Katowice, Poland, 24-27 May 2023

Symposium:

*“Recovery and sleep ...”*

# Background

Background  
●●○○○

Aim & hypotheses  
○

Method  
○○

Results  
○○○○○○○○○○○○

Discussion & refs  
○○○

# Workaholism

# Workaholism and sleep

## Cross-sectional:

Andreassen et al (2010). 661 employees: + insomnia symptoms

Kubota et al (2010). 312 hospital nurses: + risk of sleep problems, but not insomnia

Salanova et al (2016). 537 hospital employees: + sleep problems

Andreassen et al (2018). 988 employees: demands → whlsm → anxiety/insomnia

Spagnoli et al (2018). 146 employees: whlsm → job-related neg. affect → anxiety before sleep

Spagnoli et al (2019). 418 employees: whlsm → ICT use & daytime sleepiness → sleep quality

## Longitudinal:

Kubota et al (2014). 1,603 employees: + sleep latency, daytime dysf., not overall sleep quality

## Diary studies:

?

# Workaholism and recovery experiences (RE)

## Cross-sectional:

Burke et al (2009). 887 managers: + Mastery & Control

Shimazu et al (2014). 2,520 employees: - Psychological Detachment Gaudiino & Di Stefano (2021). 342 employees: - Psychological Detachment, + neg. affect

## Longitudinal:

Gordon & Shi (2021). 302 managers: RE \* whlsm (+) → well-being, career success

## Daily reconstruction method:

Bakker et al (2013). 85 employees: recovery activities \* whlsm (+) → RE

## Diary studies:

van Wijhe et al (2013). 118 employees (5-day): - trait and state RE

Job-related neg. affect \* whlsm (+) → - RE

Job-related neg. affect \* whlsm (+) → + late work

Background  
○○○○●

Aim & hypotheses  
○

Method  
○○

Results  
○○○○○○○○○○○○

Discussion & refs  
○○○

# States of Workaholism

# Aim & hypotheses

Background  
ooooo

Aim & hypotheses  
o

**Method**  
●o

Results  
oooooooooooo

Discussion & refs  
ooo

# Method



# Participants

For the present analyses, we only consider the inclusion criteria of having **at least three complete days** (i.e., Afternoon + Evening + Morning) over the assessment period. In contrast, the presence of sleep dysfunctions **sleep\_dysf** is considered as a confounding variable rather than an exclusion criterion.

Here, we exclude all participants with less than three complete days of self-report ratings.

```
## excluded 31 participants and 191 observations
```

```
## 893 daily reports from 104 participants
```

```
## 695 complete days
```

```
## F M
```

```
## 53 51
```

```
## age = 42.15 SD = 12.92
```

```
##          1          2
```

```
## 24.03846 75.96154
```

Background  
ooooo

Aim & hypotheses  
o

Method  
oo

Results  
●ooooooooo

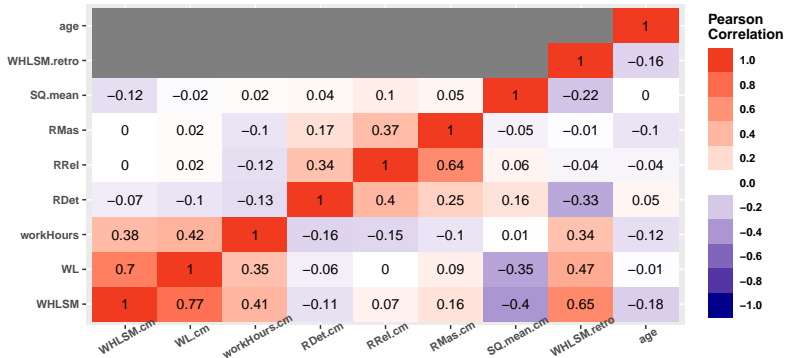
Discussion & refs  
ooo

# Results

# Descriptives

Measure	N	Mean	ICC
Workaholism (1-7)	802	3.4 (1.52)	0.59
Workload (1-7)	802	4.51 (1.6)	0.42
Work hours (No.)	791	7.86 (1.93)	0.53
Psy Detachment (1-7)	791	4.39 (1.84)	0.38
Relaxation (1-7)	791	4.23 (1.79)	0.37
Mastery (1-7)	791	3 (1.55)	0.42
Sleep quality (1-7)	789	5.44 (1.4)	0.41
Workaholism retr. (1-5)	104	2.41 (0.54)	NA
Age (years)	104	42.15 (12.92)	NA

# Correlations



# Workaholism and Psychological Detachment

**Multilevel models predicting Psychological Detachment (N=745)**

<i>Predictors</i>	Step 1		Step 2		Step 3	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	4.177 (0.176)	23.726	4.548 (0.388)	11.707	4.548 (0.388)	11.707
gender [M]	0.455 (0.253)	1.800	0.459 (0.253)	1.817	0.459 (0.253)	1.817
age gmc	0.005 (0.010)	0.484	0.003 (0.010)	0.280	0.003 (0.010)	0.280
workHours mc	-0.145 (0.044)	-3.331	-0.145 (0.044)	-3.331	-0.137 (0.047)	-2.896
WHLSM cm			-0.110 (0.103)	-1.071	-0.110 (0.103)	-1.071
WHLSM mc					-0.028 (0.063)	-0.441

# Workaholism and Relaxation

**Multilevel models predicting Relaxation (N = 745)**

<i>Predictors</i>	Step 1		Step 2		Step 3	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	4.044 (0.167)	24.152	3.897 (0.371)	10.507	3.897 (0.371)	10.507
gender [M]	0.253 (0.240)	1.054	0.252 (0.241)	1.043	0.252 (0.241)	1.043
age gmc	-0.004 (0.009)	-0.416	-0.003 (0.010)	-0.327	-0.003 (0.010)	-0.327
workHours mc	-0.104 (0.043)	-2.433	-0.104 (0.043)	-2.433	-0.123 (0.047)	-2.638
WHLSM cm			0.044 (0.098)	0.443	0.044 (0.098)	0.443
WHLSM mc					0.063 (0.062)	1.019

# Workaholism and Mastery

**Multilevel models predicting Mastery (N = 745)**

<i>Predictors</i>	Step 1		Step 2		Step 3	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	2.882 (0.152)	19.011	2.467 (0.332)	7.423	2.467 (0.332)	7.423
gender [M]	0.164 (0.217)	0.753	0.159 (0.216)	0.736	0.159 (0.216)	0.736
age gmc	-0.008 (0.008)	-0.910	-0.005 (0.009)	-0.642	-0.005 (0.009)	-0.642
workHours mc	-0.075 (0.036)	-2.077	-0.075 (0.036)	-2.076	-0.088 (0.039)	-2.246
WHLSM cm			0.123 (0.088)	1.399	0.123 (0.088)	1.399
WHLSM mc					0.044 (0.052)	0.856

# Workaholism and Sleep Quality (lagged)

**Multilevel models predicting Sleep Quality (N = 694)**

<i>Predictors</i>	Step 1		Step 2		Step 3	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	5.333 (0.138)	38.575	6.474 (0.273)	23.688	6.472 (0.273)	23.688
gender [M]	0.327 (0.194)	1.685	0.342 (0.177)	1.932	0.342 (0.177)	1.935
age gmc	-0.001 (0.008)	-0.187	-0.008 (0.007)	-1.116	-0.008 (0.007)	-1.115
workHours mc	0.041 (0.033)	1.233	0.040 (0.033)	1.217	0.086 (0.036)	2.408
lateWorkHours [TRUE]	-0.113 (0.121)	-0.934	-0.089 (0.120)	-0.741	-0.082 (0.119)	-0.685
RDet mc	-0.009 (0.032)	-0.293	-0.008 (0.032)	-0.258	-0.011 (0.032)	-0.347
RRel mc	0.058 (0.034)	1.712	0.059 (0.034)	1.728	0.063 (0.034)	1.881
RMas mc	0.007 (0.040)	0.164	0.007 (0.040)	0.170	0.007 (0.039)	0.190
WHLMS cm			-0.341 (0.073)	-4.706	-0.341 (0.072)	-4.711
WHLMS mc					-0.154 (0.047)	-3.233



# Workaholism and Sleep Quality (cross-lagged)

**Multilevel models predicting Sleep Quality (N = 694)**

<i>Predictors</i>	Step 1		Step 2		Step 3	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	4.336 (0.259)	16.727	5.269 (0.365)	14.448	5.334 (0.366)	14.587
gender [M]	0.261 (0.175)	1.492	0.292 (0.167)	1.749	0.297 (0.169)	1.763
age gmc	-0.001 (0.007)	-0.185	-0.006 (0.007)	-0.933	-0.006 (0.007)	-0.938
workHours mc	0.057 (0.041)	1.386	0.055 (0.041)	1.345	0.095 (0.044)	2.158
lateWorkHours [TRUE]	-0.049 (0.140)	-0.353	-0.033 (0.138)	-0.237	-0.032 (0.137)	-0.230
RDet mc	0.042 (0.041)	1.019	0.043 (0.041)	1.060	0.044 (0.040)	1.099
RRel mc	0.001 (0.040)	0.033	0.001 (0.040)	0.037	0.007 (0.040)	0.181
RMas mc	-0.018 (0.048)	-0.377	-0.019 (0.048)	-0.392	-0.013 (0.047)	-0.281
SQ lag	0.182 (0.043)	4.217	0.168 (0.043)	3.872	0.157 (0.043)	3.643
WHLMS cm			-0.254 (0.066)	-3.865	-0.257 (0.066)	-3.879
WHLMS mc					-0.139 (0.059)	-2.363

# Psych. Detachment and Sleep Quality by Whlsm

**Multilevel models predicting Sleep Quality (N = 694)**

<i>Predictors</i>	Step 4		Step 5A		Step 5B	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	6.471 (0.273)	23.705	6.465 (0.273)	23.650	6.472 (0.274)	23.606
gender [M]	0.357 (0.177)	2.019	0.355 (0.177)	2.009	0.357 (0.178)	2.011
age gmc	-0.007 (0.007)	-1.051	-0.007 (0.007)	-1.057	-0.008 (0.007)	-1.180
workHours mc	0.081 (0.036)	2.267	0.081 (0.036)	2.280	0.081 (0.035)	2.278
lateWorkHours [TRUE]	-0.099 (0.119)	-0.829	-0.102 (0.119)	-0.860	-0.078 (0.119)	-0.653
WHLSTM cm	-0.342 (0.072)	-4.729	-0.340 (0.073)	-4.688	-0.342 (0.073)	-4.709
WHLSTM mc	-0.149 (0.047)	-3.129	-0.149 (0.048)	-3.132	-0.146 (0.047)	-3.083
RDdet mc	0.007 (0.032)	0.232	-0.034 (0.087)	-0.392	0.011 (0.031)	0.357
WHLSTM cm * RDdet mc			0.012 (0.024)	0.504		
WHLSTM mc * RDdet mc					0.078 (0.033)	2.384

# Relaxation and Sleep Quality by Whlsm

**Multilevel models predicting Sleep Quality (N = 694)**

<i>Predictors</i>	Step 4		Step 5A		Step 5B	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	6.468 (0.273)	23.683	6.469 (0.273)	23.683	6.490 (0.272)	23.886
gender [M]	0.344 (0.177)	1.945	0.344 (0.177)	1.944	0.328 (0.176)	1.864
age gmc	-0.008 (0.007)	-1.114	-0.008 (0.007)	-1.115	-0.008 (0.007)	-1.212
workHours mc	0.083 (0.036)	2.312	0.082 (0.036)	2.296	0.080 (0.036)	2.232
lateWorkHours [TRUE]	-0.060 (0.118)	-0.508	-0.059 (0.118)	-0.499	-0.036 (0.118)	-0.308
WHLSM cm	-0.342 (0.072)	-4.720	-0.342 (0.072)	-4.722	-0.348 (0.072)	-4.832
WHLSM mc	-0.150 (0.047)	-3.159	-0.149 (0.048)	-3.131	-0.146 (0.047)	-3.077
RRel mc	0.062 (0.032)	1.922	0.076 (0.094)	0.804	0.061 (0.032)	1.887
WHLSM cm * RRel mc			-0.004 (0.026)	-0.150		
WHLSM mc * RRel mc					0.067 (0.032)	2.119

# Mastery and Sleep Quality by Whlsm

**Multilevel models predicting Sleep Quality (N = 694)**

<i>Predictors</i>	Step 4		Step 5A		Step 5B	
	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>	<i>b (SE)</i>	<i>t</i>
(Intercept)	6.478 (0.273)	23.721	6.474 (0.273)	23.703	6.489 (0.272)	23.857
gender [M]	0.340 (0.177)	1.924	0.340 (0.177)	1.922	0.325 (0.176)	1.845
age gmc	-0.008 (0.007)	-1.137	-0.008 (0.007)	-1.138	-0.008 (0.007)	-1.187
workHours mc	0.068 (0.036)	1.914	0.064 (0.036)	1.801	0.071 (0.036)	1.990
lateWorkHours [TRUE]	-0.058 (0.117)	-0.501	-0.064 (0.116)	-0.552	-0.062 (0.116)	-0.537
WHLSM cm	-0.344 (0.072)	-4.755	-0.343 (0.072)	-4.730	-0.345 (0.072)	-4.782
WHLSM mc	-0.141 (0.047)	-3.009	-0.140 (0.047)	-2.992	-0.142 (0.047)	-3.031
RMas mc	0.014 (0.046)	0.304	0.215 (0.136)	1.579	0.018 (0.046)	0.391
WHLSM cm * RMas mc			-0.059 (0.037)	-1.569		
WHLSM mc * RMas mc					0.073 (0.039)	1.875

Background  
ooooo

Aim & hypotheses  
o

Method  
oo

Results  
oooooooooooo

Discussion & refs  
●oo

## Discussion & refs

# Discussion

Summary of results

# Discussion

WHLSM & circadian typology