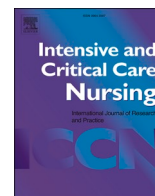




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Correspondence



Motherhood and mental and physical health in intensive care unit nurses during the confinements caused by the COVID-19 pandemic

Dear Editor,

The COVID-19 pandemic has had a great impact on the physical and mental health status of healthcare personnel (Cag et al., 2021). Taking into account that female workers with young children have been one of the groups that has suffered the most during this period (Brooks et al., 2020), a cross-sectional study was carried out to compare the psychological and physical impact of the COVID-19 pandemic on intensive care (ICU) nursing staff with cohabiting children and without cohabiting children during the outbreak in Spain. A total of 270 women participated anonymously and voluntarily, of which 45.19% ($n = 122$) lived with their children compared to 54.81% ($n = 148$) who did not live with them. The data was collected in the months of March to June 2020. At that time, Spain was facing the first wave of the pandemic. The study was approved by the Ethics Comitee of the Hospital Universitario Fundación Alcorcón Reference 20/88 and all participants signed the informed consent form. The current study is supported by the Spanish Society for Intensive Nursing and Coronary Units (SEEIUC). The participants filled out a self-report questionnaire where they were asked for sociodemographic information (age and marital status), related to work (experience in the unit, employment relationship, shift schedule, number of weekly hours worked, number of COVID patients treated and availability of Personal Protective Equipment –PPE-), six health assessment questionnaires: COVID (+), anxiety, depression and stress (DASS-21), acute reaction to stress (SASRQ for DSM-V), worries (ad-hoc), sleep quality (PSQI) and health-related quality of life (SF-36). As shown in Table 1, women with children are older, and in a higher percentage are married. Women with children have less experience in the unit and have a higher percentage of permanent contracts. As far as psychological variables and symptoms are concerned, the levels of worries about the pandemic situation, stress and severe response to stress are significantly

higher in nurses with cohabiting children than without cohabiting children (all, $p < .05$). Likewise, significant differences are found in relation to the physical and mental components of quality of life, with nurses with cohabiting children showing a worse state of perceived health in both components. Consistent with our results, different studies indicate that motherhood is a risk factor for stress in women who are in an active work situation (Balluerka Lasa et al., 2020). In addition, this reaction of worry and stress could be increased by the consequences derived from the pandemic, such as confinement or the number of unexpected deaths (Heesakkers et al., 2021). Finally, it is important to point out that the results do not show significant differences in the levels of depression, anxiety and sleep quality between women with and without cohabiting children ($p > .05$ all). These results may be due to the greater training and experience of these women in highly stressful environments such as the ICU (Wozniak et al., 2021). A study limitation is the lack of logistic regression analyses; independent relationships with outcomes were not pursued because several potentially important covariates were not collected. Despite the above limitation, this manuscript shows motherhood as a potential additional risk factor to keep in mind in the effects on health in ICU nurses during the confinements caused by the COVID-19 pandemic.

Ethics approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Bioethics Committee of the Hospital Universitario Fundación de Alcorcón.

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Table 1
Sociodemographic, occupational and psychological differences.

	With Children (n = 122)	Childless (n = 148)	t or X2	p-value
Age, mean (SD)	45.04(6.80)	32.78(8.23)	13.03	<0.001
Material status, n (%)			77.17	<0.001
married	103 (84.42)	61 (41.21)		
unmarried	19 (15.58)	87 (58.79)		
Experience in unit, mean (SD)	6.75(8.35)	13.01(9.48)	5.563	<0.001
Employment relationship, n (%)			41.57	<0.001
permanent	77 (63.11)	42 (28.38)		
interim	29 (23.77)	38 (25.67)		
eventual	16 (13.12)	68 (45.95)		
Shift, n (%)			5.49	0.482
fixed shift	83 (68.03)	87 (58.78)		
rotary	39 (31.97)	61 (41.22)		
Workload during the pandemic, n (%)			0.376	0.828
< usual	1 (0.82)	1 (0.68)		
= usual	4 (3.28)	7 (4.73)		
> usual	117 (95.90)	140 (94.59)		
Patient/professional ratio, n (%)			1.99	0.369
< usual	18 (14.75)	17 (11.49)		
= usual	46 (37.70)	68 (45.95)		
> usual	58 (47.55)	63 (42.56)		
Availability of PPE, n (%)			0.263	0.626
usually yes	64 (52.46)	73 (49.32)		
not usually	58 (47.54)	75 (50.68)		
COVID (+), n (%)			0.004	0.952
Yes	17 (13.93)	21 (14.19)		
No	105 (86.07)	127 (85.81)		
Stress, mean (SD)	11.41(4.67)	10.39(3.53)	1.975	0.047
Anxiety, mean (SD)	6.97(4.00)	6.60(4.75)	0.571	0.568
Depression, mean (SD)	6.92(4.52)	5.98(4.22)	1.42	0.156
Acute stress reaction, mean (SD)				
dissociative symptoms	21.28(10.98)	17.52(11.57)	2.237	0.026
re-experiencing	14.82(7.80)	12.58(7.65)	1.943	0.05
avoidance	12.83(6.94)	10.60(7.24)	1.941	0.051
marked anxiety/Increased arousal	17.52(6.46)	15.56(6.38)	2.039	0.043
Concerns, mean (SD)				
by the situation	10.54(1.77)	9.82(1.78)	2.89	0.004
for infecting the family	0.96(0.19)	0.95(0.22)	0.429	0.668
by own contagion	0.84(0.37)	0.82(0.38)	0.312	0.755
Sleep quality, mean (SD)	11.91(4.18)	11.29(4.10)	0.962	0.337
Health-related quality of life, mean (SD)			-2.646	0.194
mental component	28.29(12.63)	33.50(13.68)	2.512	0.009
physical component	44.23(6.14)	46.43(5.60)	1.987	0.013

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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