

# Impact of the COVID-19 crisis on healthcare workers: The need to address quality of working life issues

To the Editors:

The review study by Smallwood et al.<sup>1</sup> explores the multiple impacts of the COVID-19 pandemic on healthcare workers, documenting both the epidemiology of the disease in this population, and the huge workplace and psychosocial disruption that arose from the crisis. Their critical analysis of the literature stresses the need to set up comprehensive disaster response management plans able to safeguard healthcare workforces during crises.<sup>1</sup> We would like to call for integrating quality of working life (QWL) issues in these plans to allow for a more holistic approach to healthcare workers' health. The multi-dimensional concept of QWL addresses well-being in the workplace, including but not limited to workload, balance between professional and personal lives, meaning of work and meaning at work.<sup>2</sup> Healthcare workers' QWL has repercussions not only on workers' perceived health and quality of life, but also on the quality of care that they provide to patients. In the context of COVID, there remains a lack of QWL studies among healthcare workers, existing studies often being single-centre, limited to a given professional category or to a single dimension such as mental health.

We collected QWL data in a large sample of hospital night-shift healthcare workers (NSHW) in France, shortly after the first wave of the COVID-19 pandemic. The ALADDIN cross-sectional online survey (15 June to 15 September 2020) was conducted among NSHW in the 39 hospitals of the Assistance Publique-Hôpitaux de Paris (AP-HP).<sup>3</sup> One of its objectives was to document NSHW's perceptions and experiences since the beginning of the crisis and their association with QWL. Data were weighted and calibrated using the raking-ratio method to be representative of all AP-HP NSHW ( $n = 12,000$ ) in terms of sex, age and professional category. QWL was assessed using the six-dimension work-related quality of life (WRQoL) scale.<sup>4</sup> Correlates of WRQoL scores were identified using multivariable linear regression models.

A total of 1387 NSHW answered the WRQoL scale (nurses: 52.3%; nurse assistants or technicians: 38.2%; midwives: 4.2%; executives: 0.8%; other categories: 4.6%). Multivariable models highlighted the key role of communication at work, as NSHW's perceptions of the

information received on COVID impacted all dimensions of their QWL (Table 1). Fear of becoming infected at work or fear of transmitting COVID-19 to close relatives, and difficulties with applying protective measures at work were confirmed as significant stressors. By contrast, feeling valued by the general population as a healthcare worker during the crisis positively impacted NSHW's QWL in the working conditions, control at work, job and career satisfaction and home-work interface dimensions. These findings suggest that, beyond building acute responses to sanitary crises (such as setting up effective protective measures at work), a broader reflection needs to be pursued to build long-term responses that consider healthcare workers' QWL, experiences, needs and expectations. In the early phases of the pandemic, healthcare workers were applauded as frontline fighting forces. Now has come the time to listen to their voices and learn from this ongoing pandemic in order to improve healthcare systems' preparedness to future crises.


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## CONFLICT OF INTEREST


None declared.


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**TABLE 1** Perceptions and experiences of NSHWs in Paris public hospitals during the first wave of the COVID-19 pandemic: Association with QWL (WRQoL scale scores, AP-HP ALADDIN survey,  $n = 1387$ , multivariable linear regression models)

	QWL dimensions					
	General well-being (0–30; 19 [4])	Home-work interface (0–15; 9 [2])	Job and career satisfaction (0–30; 19 [4])	Control at work (0–15; 9 [3])	Working conditions (0–15; 8 [3])	Stress at work (0–10; 6 [2])
	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Variables (% of NSHW)						
Changes in work organization						
Change of department (25.8)	–0.18 (–0.75; 0.40)	–0.15 (–0.45; 0.16)	–0.34 (–0.86; 0.18)	0.06 (–0.29; 0.41)	–0.55 (–0.87; –0.22)	–0.07 (–0.33; 0.18)
Change of activity to manage COVID patients (19.0)	–0.62 (–1.30; 0.05)	0.04 (–0.29; 0.36)	<b>0.60 (0.01; 1.18)</b>	0.15 (–0.25; 0.56)	0.06 (–0.30; 0.42)	0.12 (–0.17; 0.41)
Information on COVID						
Satisfied of the information received from the employer <sup>a</sup> (31.5)	<b>1.27 (0.71; 1.84)</b>	<b>0.43 (0.16; 0.71)</b>	<b>1.26 (0.77; 1.76)</b>	<b>0.66 (0.32; 1.00)</b>	<b>1.13 (0.80; 1.45)</b>	<b>0.47 (0.21; 0.73)</b>
Fear of infection						
Fear to get the COVID at work (65.5)	–0.35 (–0.89; 0.20)	0.03 (–0.25; 0.32)	–0.33 (–0.81; 0.15)	–0.02 (–0.37; 0.32)	–0.29 (–0.61; 0.04)	–0.43 (–0.68; –0.18)
Fear to transmit the disease to close relatives (90.6)	<b>–1.10 (–2.07; –0.14)</b>	–0.03 (–0.43; 0.37)	0.41 (–0.41; 1.23)	0.17 (–0.39; 0.72)	–0.44 (–0.96; 0.07)	–0.69 (–1.11; –0.27)
Support received						
Psychological support from close relatives <sup>b</sup> (7.0)	0.85 (–0.21; 1.91)	0.29 (–0.25; 0.82)	<b>1.10 (0.15; 2.05)</b>	0.50 (–0.11; 1.11)	<b>0.84 (0.27; 1.40)</b>	0.04 (–0.42; 0.51)
Felt valued by the general population as an NSHW (62.9)	0.42 (–0.08; 0.91)	<b>0.32 (0.07; 0.58)</b>	<b>0.91 (0.46; 1.36)</b>	<b>0.40 (0.07; 0.72)</b>	<b>0.47 (0.17; 0.76)</b>	0.06 (–0.17; 0.29)
Protective measures and screening						
Difficulties in applying protective measures against COVID <sup>c</sup> (59.7)	–0.23 (–0.73; 0.27)	–0.13 (–0.38; 0.12)	–0.32 (–0.78; 0.14)	–0.12 (–0.44; 0.20)	–0.16 (–0.47; 0.14)	–0.38 (–0.61; –0.15)
Considers protective measures against COVID inadequate <sup>c</sup> (27.6)	–0.40 (–0.98; 0.17)	–0.25 (–0.55; 0.05)	<b>–1.06 (–1.59; –0.52)</b>	–0.25 (–0.61; 0.11)	<b>–0.87 (–1.20; –0.53)</b>	0.05 (–0.21; 0.31)
Difficulties in getting screened <sup>c</sup> for COVID (58.4)	–0.45 (–0.97; 0.07)	<b>–0.35 (–0.61; –0.10)</b>	<b>–0.80 (–1.26; –0.34)</b>	<b>–0.43 (–0.75; –0.12)</b>	<b>–0.45 (–0.75; –0.16)</b>	–0.18 (–0.40; 0.05)

Note: Figures in bold font indicate significant association with the outcome ( $p < 0.05$ ). Models were adjusted for sociodemographic (matrimonial status, having children, perceived financial status) and work-related characteristics (professional category, type of position: night permanent position, replacement, day/night alternation, etc.). The Stata version 14.2 for Windows software (StataCorp, College Station, Texas, USA) was used for the analyses.

Abbreviations: NSHW, night-shift healthcare worker; QWL, quality of working life; WRQoL, work-related quality of life (higher score values denote better QWL in the considered dimension).

<sup>a</sup>The information on protective measures against COVID that I received from my employer were sufficient and complete<sup>a</sup>.

<sup>b</sup>During the previous 2 weeks.

<sup>c</sup>‘I totally agree’ or ‘I agree’ (vs. ‘I totally disagree’, ‘I disagree’ or ‘no interest’).

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