

BACKGROUND

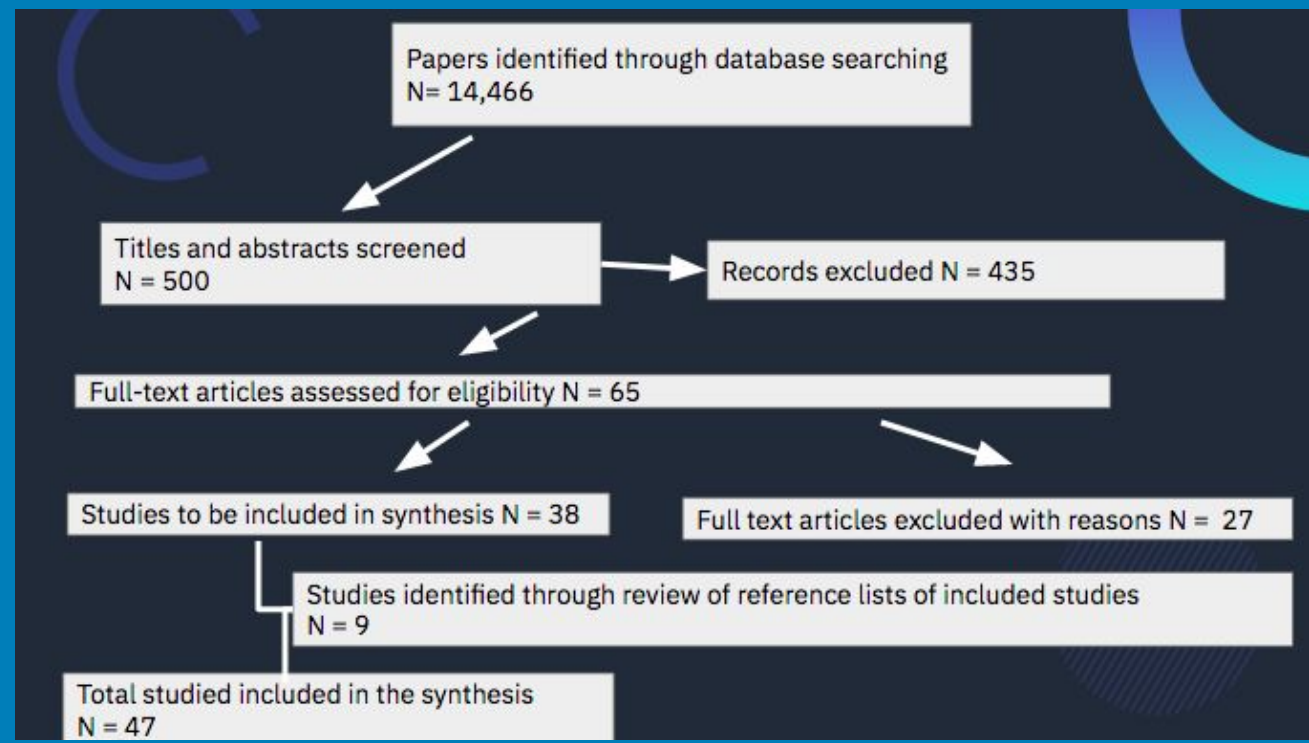
The working conditions of healthcare workers in France is deteriorating, especially among paramedical staff in conventional surgical units. President Macron in a meeting with hospital workers early in 2023 at the Centre Hospitalier Sud Francilien acknowledged the “personal and collective exhaustion” workers are experiencing at the “endless crisis” facing France’s national healthcare system. He unveiled plans to implement a number of interventions ultimately aimed at stopping the increasing flow of staff leaving the healthcare profession all together including giving caregivers meaning in their profession by freeing up time for caregivers to spend solely with patients rather than on administrative tasks, ensuring that the existing 600,000 patients with chronic illnesses without a primary care doctor be offered one by the end of the year to avoid them from delaying care or ending up in emergency care, and speeding up the recruitment of medical assistants to increase their numbers from 4,000 currently to 10,000 by the end of 2023. But it is unclear if these interventions will address some of the psychosocial issues causing workers to leave healthcare completely such as burnout or as some doctors in the US are referring to it as a moral injury where caretakers are unable to provide high-quality care and healing in the context of their current structure of healthcare in stark opposition to the oaths they have taken to do so for their patients. Looking at the issue globally, it seems many countries despite their different structures are encountering declines in the working conditions of healthcare staff, poor wellbeing of staff and poor staff retention. The US has a very different healthcare structure than France but is similarly experiencing a high prevalence of burnout among healthcare staff especially post pandemic. One study of US nurses and physicians found that nurses experienced a 25% increase in the incidence of burnout and physicians experienced a 32% increase following the pandemic. This dramatic increase prompted the U.S. Surgeon General Report in 2022 to identify and address the factors contributing to burnout in healthcare workers. In France, there exists a hesitance to embrace interventions implemented by the US in response such as the shift towards ambulatory surgical centers and outpatient care. We sought to explore what impact the ambulatory shift has had on the well-being and work life balance of healthcare workers, particularly paramedical staff as well as describe the working conditions of paramedical staff; determine the factors that contribute to staff burnout; and understand how those working conditions impact patient safety, quality of care, and workforce wellbeing. A scoping review, analysis of a longitudinal survey of hospital administrators (2013, 2016 & 2019), and analysis of a case study of French Vascular Surgeons and their support staff (2022) was utilized. We found that tension in the workplace is increasing over time and that an increase in ambulatory activity impacted the work environment of staff. Literature that examines workplace wellbeing and burnout of paramedical staff is sparse. The high patient loads, long hours, and conflict with administrators contributes to staff burnout and increases the likelihood of attrition and presenteeism. Strong research exists linking burnout in healthcare staff to patient outcomes, quality of care, and patient safety. These results attest to the necessity of policy that aims to improve the working conditions of healthcare staff

ECOLE DES HAUTES ÉTUDES EN SANTÉ PUBLIQUE

The Ecole des Hautes Études en Santé Publique (EHESP) is a research and education institute in Rennes, France dedicated to public health and social welfare. They educate international healthcare leaders with aims to foster international relationships alongside training, research, and networking opportunities. This research project was completed within the Department of Quantitative Methods in Public Health under the supervision of Dr. Nolwenn Le Meur. Dr. Le Meur, PhD. is a researcher in the evolutions of health systems; health promotion and disease prevention, health safety organisations; steering, regulation, and management of health services; and the reduction of social and territorial inequalities.

TABLES

Methodology for Scoping Literature Review



Characteristic	2013, N = 617 ^a	2016, N = 627 ^a	2019, N = 518 ^a	p-value ^b
Increase of the number of day surgery	261 (42%)	300 (48%)	211 (41%)	0.035
Development of chronic diseases				<0.001
None/Very Weak	198 (35%)	199 (34%)	138 (29%)	
Weak	246 (44%)	218 (37%)	172 (65%)	
Strong	113 (20%)	144 (25%)	161 (34%)	
Very	8 (1.4%)	22 (3.8%)	9 (1.9%)	
Evolution of staff				<0.001
Decrease	111 (18%)	143 (23%)	102 (21%)	
Increase	238 (39%)	213 (35%)	134 (27%)	
Stable	255 (42%)	261 (42%)	254 (52%)	
Variation of the number of stays				<0.001
Increasing	75 (12%)	84 (14%)	51 (10%)	
Decreasing	286 (47%)	317 (51%)	38 (7%)	
Both direction	44 (7.2%)	40 (6.5%)	274 (56%)	
No variation	202 (33%)	175 (28%)	129 (26%)	
Scaled tension score	2.50 (2.13, 2.75)	2.38 (2.13, 2.75)	2.26 (2.00, 2.63)	<0.001
Employees under pressure (average level)				
>50%	46 (7.5%)	51 (8.1%)	82 (16%)	
10 to 50%	467 (76%)	475 (76%)	362 (70%)	
<10%	104 (17%)	100 (16%)	73 (14%)	
0%	0 (0%)	1 (0.2%)	1 (0.2%)	

^a n (%), Median (IQR)

^b Pearson's Chi-squared test; Kruskal-Wallis rank-sum test

Table 7. Factors associated with perception of impaired serenity and concentration of vascular surgeons* surgical practice by issues related to paramedical staff in the conventional sector - Reference: serenity and concentration during care is exceptionally impaired - Multivariate multinomial analysis.

Characteristics	OR*	95% CI†	p-value	OR*	95% CI†	p-value
Mediation with hospital's manager	—	—	—	—	—	—
yes, or sometimes	—	—	—	—	—	—
no	6.78	1.33, 34.6	0.022	10.6	1.97, 57.0	0.006
Patient of increased comorbidities in conventional	—	—	—	—	—	—
no	—	—	—	—	—	—
yes	1.42	0.43, 4.77	0.6	4.64	1.17, 18.5	0.03
Paramedical staff suffering sometimes	—	—	—	—	—	—
often	0.86	0.25, 2.94	0.8	4.78	1.06, 21.6	0.042

*OR = Odds Ratio,

†CI = Confidence Interval

Characteristic	Yes, N = 772	No, N = 990
The need to work urgently	0.4	0.2
>50%	75 (20%)	80 (27%)
10 to 50%	150 (38%)	161 (54%)
<10%	32 (12%)	53 (16%)
no employees	2 (0.8%)	2 (1.0%)
The feeling of not being able to do a quality job	0.087	0.037
>50%	30 (10%)	40 (15%)
10 to 50%	140 (46%)	157 (58%)
<10%	76 (20%)	77 (28%)
no employees	3 (1.2%)	3 (1.1%)
Tensions between colleagues	0.5	0.004
>50%	3 (1.2%)	9 (3.3%)
10 to 50%	106 (41%)	127 (43%)
<10%	144 (56%)	157 (53%)
no employees	3 (1.2%)	1 (0.3%)
Tensions with the hierarchy	0.3	0.10
>50%	2 (0.8%)	5 (1.7%)
10 to 50%	91 (36%)	119 (41%)
<10%	159 (62%)	162 (56%)
no employees	3 (1.2%)	4 (1.4%)
Tensions with the public, customers	0.3	0.11
>50%	12 (4.0%)	25 (8.4%)
10 to 50%	142 (55%)	165 (56%)
<10%	101 (39%)	122 (44%)
no employees	4 (1.5%)	5 (1.7%)
The fear of becoming unemployed	0.6	0.14
>50%	3 (1.2%)	2 (0.7%)
10 to 50%	30 (10%)	29 (9.7%)
<10%	169 (65%)	213 (74%)
no employees	42 (17%)	45 (16%)
Unpredictable working hours	0.10	0.087
>50%	14 (5.4%)	12 (4.0%)
10 to 50%	76 (29%)	83 (28%)
<10%	120 (47%)	160 (54%)
no employees	48 (19%)	43 (14%)
Too much work load	0.2	0.009
>50%	28 (11%)	31 (11%)
10 to 50%	128 (52%)	151 (56%)
<10%	85 (35%)	90 (32%)
no employees	3 (1.2%)	2 (0.7%)

^a n (%)

^b Pearson's Chi-squared test

METHODS

- Scoping Literature Review
- Examined Current State of Literature on burnout and working conditions amongst paramedical staff globally factors contributing to staff burnout;
- Examined ow burnout and poor working conditions impact patient safety, quality of care, and workforce wellbeing / retention

- Longitudinal survey of administrative staff at representative sample nonprofit and public hospitals: 2013, 2016, and 2019
- Survey addressed tension in the workplace, increasing shift to ambulatory services, and burden of chronic disease.

- 2022 Survey administered to surgeons in the French Society of Vascular Surgeons with a response rate of 25% (n=125)
- Survey addressed workplace environment, and nurses and paramedical staff experiences

In hospitals surveyed between 2013 and 2016 there is an increase in the percentage of hospitals who report an increase in ambulatory surgeries. There is also an increase in number of facilities in which development of chronic diseases strongly characterizes their interactions with patients. The number of facilities that characterize their staffing levels as increasing is decreasing. Of notable concern, the number of patient profiles with reported chronic diseases and comorbidities is increasing while staffing levels are decreasing. Thus, we hypothesize these conditions contribute to an environment that facilitates the declining well-being of healthcare staff.

DISCUSSION

Our main observation is that most vascular surgeons (68%) reported paramedical staff psychosocial stress which for most significantly impaired their serenity and concentration at work with frequent concern on their surgical procedure safety. According to surveyed vascular surgeons, the principal sources of stress for the paramedical staff were the high work pace (64%), the demand for flexibility (56%), the lack of anticipation of schedule changes (82%), and the difficulties encountered with hospital manager on those matters (44.6%). We found that the increase in day surgery was associated with tension in the workplace environment. Paramedical staff suffering, likelihood of patient morbidities, and mediation with hospital managers was associated with higher rates of self reported disruptive working environments. Literature that examines workplace wellbeing and burnout of paramedical staff is sparse. More research is needed to better understand how staff in hospitals, at large, are experiencing their working conditions. COVID-19 pandemic has spurred research interest on healthcare worker well being, but hard to discern what effects are due to COVID and what already existed. The high patient loads, long hours, and conflict with administrators contributes to staff burnout and increased likelihood attrition. It is also well understood that burnout negatively impacts a patient's quality of care, safety, and health outcomes including mortality.

REFERENCES

- "Macron Unveils New Plan to Stop 'endless Crisis' in French Healthcare." Euronews, 1 Jun. 2023, www.euronews.com/2023/01/06/emmanuel-macron-unveils-new-plan-to-stop-endless-crisis-in-french-healthcare. Accessed 21 Aug. 2023.
- " THE PRESIDENT OF THE REPUBLIC PRESENTS HIS GOAL FOR HEALTH. " Elysee.Fr , 6 Jan. 2023 , www.elysee.fr/emmanuel-macron/2023/01/06/le-president-de-la-republique-presente-son-cap-pour-la-sante . Accessed 21 Aug. 2023 .
- Talbot, Simon G., and Wendy Dean. "Physicians Aren't 'burning Out.' They're Suffering from Moral Injury." STAT, 26 Jul. 2018, www.statnews.com/2018/07/26/physicians-not-burning-out-they-are-suffering-moral-injury/. Accessed 21 Aug. 2023.
- Martha Hostetter and Sarah Klein. Responding to Burnout and Moral Injury Among Clinicians (Commonwealth Fund, Aug. 2023). <https://doi.org/10.26099/k72x-t469>
- <https://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html>