

Psychological health among surgical providers during the COVID-19 pandemic: a call to action

Editor

The COVID-19 pandemic has had an extensive impact on surgical services globally, as reported by Søreide *et al.*¹ Despite this, minimal attention has been given to the psychological impact on our Surgery providers. Recognising the potential psychological health risks, we studied the psychological health of our surgical providers through a cross-sectional survey. Our aim was to screen surgical providers for burnout and Secondary Traumatic Stress (STS), and determine whether job roles and frontline deployment affected their psychological health.

We conducted an anonymous survey among surgical providers at our tertiary academic centre. We recorded demographic data including job roles and frontline deployment status. We utilised the Professional Quality of Life Measure Version 5, which screens for burnout and STS. Fisher's Exact Test was used for univariate analysis, while multivariate analysis was performed using factorial logistic regression.

All staff completed the survey with a 100% response rate ($n = 45$). 7 staff were deployed to the frontline. 77.8% of respondents expressed fear of contracting COVID-19, and 88.9% reported fear of spreading COVID-19 to their families (Table 1). Non-doctors were more likely to fear contracting COVID-19 than doctors (92.5% vs 55.6%, OR = 10.0, $p = 0.008$). Non-doctors were more likely to fear spreading COVID-19 to their families than doctors (96.3% vs 72.2%, OR = 10.0, $p = 0.03$). Being deployed to the frontline did not affect their concerns of contracting or spreading COVID-19.

48.9% screened positive for burnout, and 62.2% screened positive

Table 1 Analysis of Outcomes			
Variable	Frequency (%)	Odds Ratio	<i>p</i> -value
Fear of Contracting COVID-19			
Non-Doctors	92.5	10.0	0.008
Doctors	55.6	1.0	
Deployed to Frontline	85.7	1.86	1
Not Deployed	76.3	1.0	
Fear of Spreading COVID-19 to Family Members			
Non-Doctors	96.3	10.0	0.03
Doctors	72.2	1.0	
Deployed to Frontline	85.7	0.71	1
Not Deployed	89.5	1.0	
Screened Positive for Burnout			
Non-Doctors	59.3	2.91	0.13
Doctors	33.3	1.0	
Deployed to Frontline	28.6	0.36	0.41
Not Deployed	52.6	1.0	
Screened Positive for Secondary Traumatic Stress			
Non-Doctors	77.8	7.0	0.005
Doctors	33.3	1.0	
Deployed to Frontline	71.4	1.63	1
Not Deployed	60.5	1.0	

Fisher's Exact Test (2-tailed) was used. $p < 0.05$ considered to indicate statistical significance. Bold values represent items with statistical significance.

for STS. There were no significant differences in the burnout rate between doctors and non-doctors (33.3% vs 59.3%, OR = 2.91, $p = 0.13$), and between frontline deployed staff and those who were not (28.6% vs 52.6%, OR 0.36, $p = 0.41$). Non-doctors were more likely to screen positive for STS than doctors (77.8% vs 28.6%, OR = 7.0, $p = 0.005$). Being deployed to the frontline did not affect the rate of STS.

In our study, there were no differences in outcomes between staff deployed to the frontline and those who were not. Non-doctors were more likely to be afraid of contracting COVID-19 and spreading it to their families, and were more likely to screen positive for STS. The overall rate of burnout was 48.9%. Even prior to this pandemic, high burnout rates of up to 50% have been reported among general surgeons.² The ever-burgeoning demands of clinical care,

research pursuits, education commitments and administrative tasks have been typically met by Surgery providers at the expense of their psychological and physical health. Longer working hours are a known major risk factor for burnout.³

It is crucial to minimize risk factors for burnout. Careful workload management and staff rotation should be instituted with opportunities for periods of respite. Staged progression of workload with close monitoring of staff morale is important. Formal PPE training and familiarisation with pandemic protocols should be conducted to bolster staff confidence in infection control measures.⁴ It is essential to maximise protective factors. Access to mental health services, associated with reduced burnout rates, should be made available.⁵

In this pandemic of an unprecedented scale in recent memory, it is imperative to recognise the presence and implications of burnout. Further

global research is needed to enhance our understanding on the psychological impact on Surgery providers, to ultimately identify protective factors and risk factors for intervention.

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