

## **Supporting Information 2: supplementary methods and results**

## Supplementary methods and results

This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.

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 Table 1. Mental health scales and cut-off scores applied in our study

Primary outcome	Scale	Cut-off scores
Depression	Patient Health Questionnaire - 9	≥10 Moderate to severe symptoms
	items (PHQ-9) <sup>1</sup>	<10 Minimal to mild symptoms
Thoughts of being better off dead or of hurting themselves	Patient Health Questionnaire Item 9 (PHQ-9 Item 9) <sup>1</sup>	≥1 On at least some days
Anxiety	Generalised Anxiety Disorder	≥10 Moderate to severe symptoms
,	Questionnaire - 7 items (GAD-7) <sup>2</sup>	<10 Minimal to mild symptoms
Being irritable	Generalised Anxiety Disorder Questionnaire Item 6 (GAD-7 Item 6) <sup>2</sup>	≥1 On at least some days
Post-traumatic stress	Impact of Event Scale - 6 items (IES-	>9 Moderate to severe symptoms
	6) <sup>3</sup>	≤9 Minimal to mild symptoms
Resilience	Connor-Davidson Resilience Scale - 2 items (CD-RISC-2) <sup>4</sup>	NA
Wellbeing	Personal Wellbeing Index (PWI-A) <sup>5</sup>	NA
Life satisfaction	Personal Wellbeing Index (PWI Item 1) <sup>5</sup>	NA
Burnout		
Emotional exhaustion	Abbreviated Maslach Burnout	≥7 Moderate to severe symptoms
	Inventory (AMBI) <sup>6</sup>	<7 Minimal to mild symptoms
Depersonalisation	Abbreviated Maslach Burnout	≥4 Moderate to severe symptoms
	Inventory (AMBI) <sup>6</sup>	<4 Minimal to mild symptoms
Personal accomplishment	Abbreviated Maslach Burnout	≤14 Moderate to severe symptoms
	Inventory (AMBI) <sup>6</sup>	>14 Minimal to mild symptoms
Optimism	10-point visual analogue scale <sup>7</sup>	<8 Minimal to moderate optimism about the future
		≥8 High optimism about the future

### Statistical analysis: supplementary details

#### Missing data and multiple imputation

#### Missing data summary

Responses from participants were linked across survey time points: our target population was all participants who responded to any of the three surveys. The tables below summarise the degree of missingness in our variables of interest for our primary analyses. Missing data for a particular survey could arise in one of two ways: (1) respondent completed that survey but responded with "Not applicable" or similar to an associated question for an outcome, yielding missing data for that specific outcome, or (2) respondent did not complete that survey but completed at least one of the other two surveys, yielding missing data for all outcomes for that survey. Survey completion was determined by the presence of a response to the question about optimism, as this question appeared near the end of the survey.

#### Missing data: demographic characteristics

Demographic variable	Complete	Missing	% Missing
Age	1667	0	0
Occupation	1667	0	0
Gender	1667	0	0
Work site	1667	0	0
IRSAD decile*	1662	5	0.3%

IRSAD = The Index of Relative Socio-economic Advantage and Disadvantage.<sup>8</sup>

\* Five respondents provided an invalid postcode, yielding an invalid IRSAD decile. These responses were excluded from the analysis.

		Survey 1			Survey 2			Survey 3	
Outcome variable	Complete	Missing <sup>+</sup>	% Missing	Complete	Missing <sup>+</sup>	% Missing	Complete	Missing <sup>+</sup>	% Missing
PHQ-9	987	675	40.6%	1150	512	30.8%	989	673	40.5%
PHQ-9 item 9	987	675	40.6%	1150	512	30.8%	989	673	40.5%
GAD-7	987	675	40.6%	1150	512	30.8%	989	673	40.5%
GAD-7 item 6	987	675	40.6%	1150	512	30.8%	989	673	40.5%
IES-6	987	675	40.6%	1150	512	30.8%	989	673	40.5%
CD-RISC-2	987	675	40.6%	1150	512	30.8%	989	673	40.5%
PWI-A^	979	683	41.1%	1150	512	30.8%	989	673	40.5%
PWI item 1 <sup>^</sup>	986	676	40.7%	1150	512	30.8%	989	673	40.5%
Exhaustion <sup>^</sup>	944	718	43.2%	1098	564	33.9%	939	723	43.5%
Depersonalisation <sup>^</sup>	805	857	51.6%	940	722	43.4%	813	849	51.1%
Accomplishment <sup>^</sup>	775	887	53.4%	924	738	44.4%	810	852	51.3%
Optimism	987	675	40.6%	1150	512	30.8%	989	673	40.5%

#### Missing data: psychological measures, by survey

+ Missingness can arise when an individual question was not completed or an entire survey round was not completed.

^Outcome-specific non-response possible due to options available in associated question(s).

PHQ-9: Patient Health Questionnaire - 9 items. GAD-7: Generalized Anxiety Disorder Questionnaire – 7-item scale. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult.

#### Missing data: COVID-19 status, by survey

		Survey 1			Survey 2		Survey 3			
Auxiliary variable	Complete	Missing <sup>+</sup>	% Missing	Complete	Missing <sup>+</sup>	% Missing	Complete Missing <sup>+</sup>		% Missing	
COVID-19 status	1505	162	9.7%	1299	368	22.1%	1005	662	39.7%	

#### Multiple imputation approach

Missing data for all outcome variables were imputed using multiple imputation using chained equations with 50 imputations, in the Stata mi program suite (version 17). The target population was all respondents; ie, all people who completed at least one survey. Each imputed dataset therefore corresponds to the target population having each completed all surveys.

Convergence of the Monte Carlo Markov chain (MCMC) process was assessed using trace plots of the first 100 iterations of the MCMC sampling for a selection of outcome variables, which were all noted as being adequate, and all imputed datasets were therefore created following burn-in of 100 iterations.

In the chained equations, the imputation models consisted of all outcome variables for each of the three surveys, adjusted for age, gender, IRSAD decile and its square, COVID-19-positive status prior to the surveys, work stream, and organisation. Each missing value for any outcome was imputed using a model that included all other outcomes and all adjustment variables. Imputations assumed missing values for each outcome variable in each survey were missing at random, conditional on all other outcome variables for all surveys and the adjustment variables.

Imputation for the continuous variables was performed using linear regression with predictive mean matching with the five nearest neighbours, and imputation for the binary variables PHQ-9 item 9 and GAD-7 item 6 was performed by logistic regression. The binary forms of PHQ-9, GAD-7, IES-6, Emotional Exhaustion, Depersonalisation, Personal Accomplishment, and Optimism were then derived from the imputed continuous forms. The models described under "Longitudinal analysis methods" were then fit to each of the 50 multiple imputation datasets. Finally, estimates and their variances (50 multiple imputation datasets) were combined using Rubin's rules to produce adjusted means and proportions, odds ratios, and differences in means (with 95% confidence intervals) using PROC MIANALYZE in SAS version 9.4.

#### Longitudinal analysis methods

The longitudinal analysis methods are described in the main text. Our aim was to assess changes in the psychological outcomes across the three surveys, primarily for all respondents, but also by occupation group. We used multiple summary measures to assess and depict these changes: comparisons of survey pairs (adjusted mean differences and odds ratios with 95% confidence intervals); adjusted means and proportions with 95% confidence intervals.

The adjusted means or proportions for each survey for all participants (with 95% confidence intervals) are depicted for each outcome in Boxes 3–5 (main article). Adjusted proportions for all binary psychological variables (with estimated odds ratios by survey pair) and adjusted mean scores for all continuous psychological variables (with estimated mean differences by survey pair) for all respondents are provided in Tables 3 and 4 respectively; adjusted proportions for binary psychological variables and means for continuous psychological variables by occupation group are reported in Tables 6 and 7. The results of complete case analyses (no imputation of missing data) are provided in Tables 8–12.

		9	Survey 1 (	mid-2021	L)			9	Survey 2 (	ate-2021	)			Sur	vey 3 (mi	d-2022)		
		Parame	Numero	Allied	Destaur	Others		Parame	Numero	Allied	Destaur	Others		Demonstration	Numero	Allied	Destaur	Others
Quarall	All	dics	Nurses	health	Doctors	Others	All	dics	Nurses	health	Doctors	Others	All	Paramedics	Nurses	health	Doctors	Others
Overall	r	100		170								074						
	989	126 (13%)	319 (32%)	176 (18%)	124 (12%)	244 (25%)	1153	117 (10%)	402 (35%)	227 (20%)	136 (12%)	271 (24%)	993	222 (19%)	282 (25%)	167 (15%)	116 (10%)	206 (18%)
Gender																		
Men	269 (27%)	70 (56%)	39 (12%)	26 (15%)	67 (54%)	67 (28%)	279 (24%)	67 (57%)	45 (11%)	29 (13%)	68 (50%)	70 (26%)	291 (29%)	121 (55%)	32 (11%)	21 (13%)	61 (53%)	56 (27%)
Women	717 (73%)	55 (44%)	280 (88%)	149 (85%)	57 (46%)	176 (72%)	868 (75%)	49 (42%)	355 (88%)	196 (86%)	68 (50%)	200 (74%)	695 (70%)	98 (44%)	249 (88%)	145 (87%)	55 (47%)	148 (72%)
Non-binary	3 (0.3%)	1 (0.8%)	0	1 (0.6%)	0	1 (0.4%)	5 (0.4%)	1 (0.9%)	1 (0.2%)	2 (0.9%)	0	1 (0.4%)	6 (0.6%)	2 (0.9%)	1 (0.4%)	1 (0.6%)	0	2 (1%)
Prefer not to say	0	0	0	0	0	0	1 (0.1%)	0	1 (0.2%)	0	0	0	1 (0.1%)	1 (0.5%)	0	0	0	0
Age	<u> </u>	<u> </u>			<u>L</u>	-	()		()				(2) (1)	(		<u> </u>	<u>.</u>	
< 45 years	500 (51%)	83 (66%)	151 (47%)	99 (56%)	62 (50%)	105 (43%)	609 (53%)	77 (66%)	202 (50%)	144 (63%)	76 (56%)	110 (41%)	509 (51%)	149 (67%)	134 (48%)	95 (57%)	56 (48%)	75 (36%)
≥ 45 years	489 (49%)	43 (34%)	168 (53%)	77 (44%)	62 (50%)	139 (57%)	544 (47%)	40 (34%)	200 (50%)	83 (37%)	60 (44%)	161 (59%)	484 (49%)	73 (33%)	148 (53%)	72 (43%)	60 (52%)	131 (64%)
Work setting	( )	(2) 1	()		(227)				(1997)			(	( )	()			( /	
Hospital	812 (82%)	0	309 (97%)	170 (97%)	113 (91%)	220 (90%)	970 (84%)	1 (0.9%)	381 (95%)	222 (98%)	122 (90%)	244 (90%)	722 (73%)	0	273 (97%)	164 (98%)	110 (95%)	175 (85%)
Ambulance	141 (14%)	126 (100%)	2 (0.6%)	2 (1%)	0	11 (5%)	135 (12%)	116 (99%)	4 (1%)	2 (0.9%)	0	13 (5%)	246 (25%)	222 (100%)	2 (0.7%)	1 (0.6%)	0	21 (10%)
Aged care	7 (0.7%)	0	1 (0.3%)	3 (2%)	0	3 (1%)	10 (0.9%)	0	5 (1%)	2 (0.9%)	0	3 (1%)	13 (1%)	0	5 (2%)	1 (0.6%)	1 (0.9%)	6 (3%)
Primary care	29 (3%)	0	7 (2%)	1 (0.6%)	11 (9%)	10 (4%)	38 (3%)	0	12 (3%)	1 (0.4%)	14 (10%)	11 (4%)	12 (1%)	0	2 (0.7%)	1 (0.6%)	5 (4%)	4 (2%)
COVID-19	1	1		( )	<u> </u>	<u> </u>	( )	1	()	<u> </u>	1 1 2 1			1	1 1	()	$X \ge I$	
COVID-19 infection	22 (2%)	2 (2%)	11 (4%)	1 (0.6%)	1 (0.9%)	7 (3%)	19 (2%)	0	12 (3%)	0	1 (0.8%)	6 (2%)	369 (37%)	97 (44%)	96 (34%)	67 (40%)	48 (41%)	61 (30%)
Work experie	nce*													· · · · ·				
$\leq$ 10 years	388 (39%)	66 (52%)	101 (32%)	65 (37%)	32 (26%)	124 (51%)	275 (38%)	46 (51%)	66 (29%)	47 (35%)	26 (29%)	90 (48%)	305 (37%)	115 (53%)	59 (28%)	40 (31%)	20 (22%)	71 (42%)
> 10 years	601 (61%)	60 (48%)	218 (68%)	111 (63%)	92 (74%)	120 (49%)	457 (62%)	44 (49%)	164 (71%)	86 (65%)	64 (71%)	99 (52%)	516 (63%)	101 (47%)	155 (72%)	91 (70%)	72 (78%)	97 (58%)

## **Table 2.** Participant demographic characteristics, by survey and occupation group

\* Not available for respondents who joined the study at survey 2.

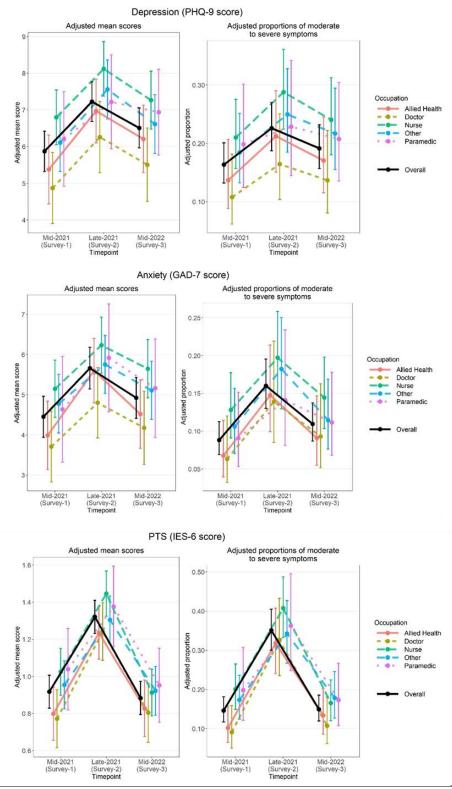
**Table 3.** Adjusted proportions of respondents (all occupation groups) who reported moderate to severe symptoms of depression, anxiety, post-traumatic stress or burnout, or high optimism, by survey, with pairwise comparisons of survey values\*

	Adjus	ted proportion (9	5% CI)	C	Odds ratio (95% C	I)
Psychological scale	Survey 1	Survey 2	Survey 3	Survey 2 <i>v</i> survey 1	Survey 3 <i>v</i> survey 2	Survey 3 <i>v</i> survey 1
Depression (PHQ-9)	0.16	0.23	0.19	1.49	0.81	1.21
	(0.13–0.20)	(0.19–0.27)	(0.16–0.23)	(1.14–1.96)	(0.63–1.05)	(0.91–1.61)
PHQ item 9	0.06	0.09	0.09	1.57	1.03	1.62
	(0.04–0.08)	(0.07–0.12)	(0.07–0.12)	(1.01–2.45)	(0.68–1.57)	(1.02–2.56)
Anxiety (GAD-7)	0.09	0.16	0.11	1.97	0.65	1.27
	(0.07–0.11)	(0.13–0.20)	(0.09–0.14)	(1.50–2.58)	(0.49–0.85)	(0.95–1.70)
GAD-7 item 6	0.61	0.70	0.64	1.44	0.78	1.12
	(0.55–0.67)	(0.64–0.74)	(0.58–0.69)	(1.08–1.92)	(0.59–1.04)	(0.84–1.51)
Post-traumatic stress	0.15	0.35	0.15	3.15	0.33	1.03
(IES-6)	(0.12–0.18)	(0.30–0.40)	(0.12–0.19)	(2.50–3.98)	(0.26–0.41)	(0.80–1.32)
Burnout (aMBI)						
Emotional exhaustion	0.69	0.77	0.72	1.51	0.80	1.20
	(0.63–0.74)	(0.72–0.81)	(0.67–0.77)	(1.19–1.92)	(0.63–1.01)	(0.94–1.53)
Depersonalisation	0.26	0.42	0.38	1.99	0.86	1.71
	(0.21–0.32)	(0.36–0.48)	(0.32–0.44)	(1.53–2.60)	(0.67–1.11)	(1.30–2.27)
Personal accomplishment	0.46	0.57	0.58	1.58	1.04	1.63
	(0.41–0.51)	(0.52–0.62)	(0.53–0.63)	(1.22–2.03)	(0.80–1.34)	(1.25–2.13)
Optimism	0.52	0.36	0.36	0.53	1.01	0.53
	(0.47–0.57)	(0.32–0.41)	(0.32–0.41)	(0.43–0.65)	(0.83–1.23)	(0.43–0.66)

\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The adjusted proportions by occupation group are reported in table 6.

PHQ-9: Patient Health Questionnaire – 9-items. GAD-7: Generalized Anxiety Disorder 7-item scale. IES-6: Impact of Event Scale – 6-items. aMBI: Abbreviated Maslach Burnout Inventory

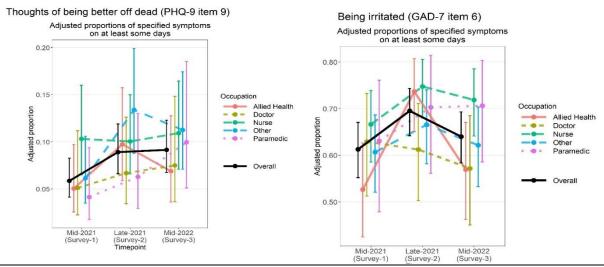
**Figure 1.** Adjusted mean scores and proportions of respondents who reported moderate to severe symptoms of depression (PHQ-9), anxiety (GAD-7), or post-traumatic stress (IES-6), with 95% confidence intervals, by occupation group and survey\*



\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The data for these graphs is included in tables 6 and 7 (by occupation) and tables 3 and 4 (overall).

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7-item scale. IES-6: Impact of Event – 6 items.

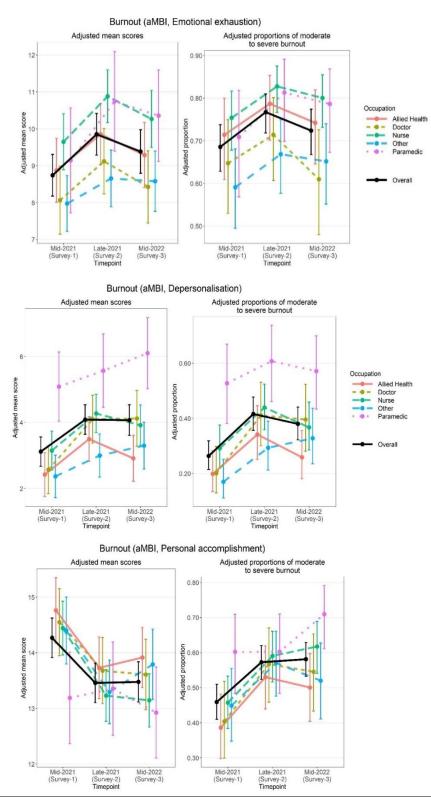
**Figure 2.** Adjusted proportions of respondents who reported being irritable on at least some days (GAD-7 item 6) or thoughts of being better off dead on at least some days (PHQ-9 item 9), with 95% confidence intervals, by occupation group and survey\*



\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The data for these graphs is included in table 6 (by occupation) and table 3 (overall).

GAD-7: Generalized Anxiety Disorder 7-item scale. PHQ-9: Patient Health Questionnaire – 9 items.

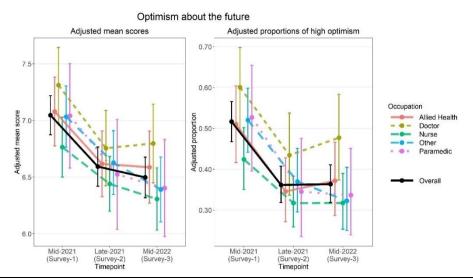
**Figure 3**. Adjusted mean scores and proportions of respondents who reported moderate to severe burnout (aMBI) and adjusted mean scores for burnout domains, with 95% confidence intervals, by occupation group and survey\*



\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The data for these graphs is included in tables 6 and 7 (by occupation) and tables 3 and 4 (overall).

aMBI: Abbreviated Maslach Burnout Inventory.

**Figure 4.** Adjusted mean scores proportions of respondents who reported high optimism, with 95% confidence intervals, by occupation group and survey\*



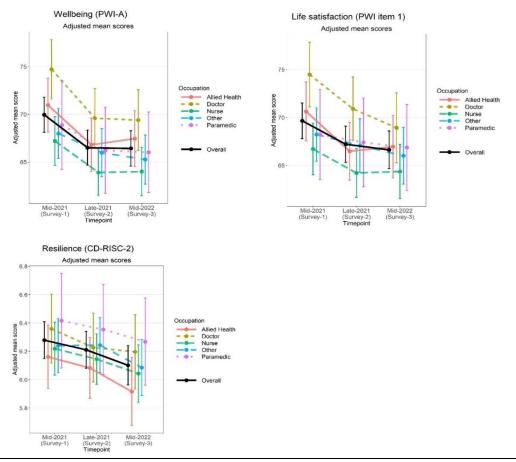
\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The data for these graphs is included in tables 6 and 7 (by occupation) and tables 3 and 4 (overall).

	Adjus	sted mean (95	% CI)	Adjuste	Adjusted mean difference (95% CI)						
Psychological scale	Survey 1	Survey 2	Survey 3	Survey 2 <i>v</i> survey 1	Survey 3 <i>v</i> survey 2	Survey 3 <i>v</i> survey 1					
Depression (PHQ-9) $^{+}$	5.87	7.23	6.51	1.35	–0.72	0.64					
	(5.32–6.42)	(6.69–7.76)	(5.96–7.05)	(0.73 to 1.98)	(–1.36 to –0.08)	(-0.03 to 1.30)					
Anxiety (GAD-7) <sup>+</sup>	4.45	5.66	4.92	1.21	–0.74	0.47					
	(3.94–4.96)	(5.14–6.18)	(4.41–5.43)	(0.79 to 1.63)	(–1.18 to –0.30)	(0.04 to 0.91)					
Post-traumatic stress	0.92	1.32	0.88	0.40	–0.44	-0.03					
(IES-6) <sup>+</sup>	(0.83–1.01)	(1.23–1.41)	(0.79–0.97)	(0.32 to 0.49)	(–0.52 to –0.35)	(-0.12 to 0.05)					
Burnout (aMBI) <sup>+</sup>											
Emotional	8.74	9.85	9.38	1.11	-0.47	0.64					
exhaustion	(8.18–9.31)	(9.29–10.4)	(8.79–9.97)	(0.48 to 1.74)	(-1.14 to 0.20)	(-0.02 to 1.30)					
Depersonalisation	3.12	4.09	4.07	0.97	-0.02	0.95					
	(2.67–3.56)	(3.64–4.53)	(3.60–4.53)	(0.51 to 1.44)	(-0.50 to 0.47)	(0.45 to 1.45)					
Personal	14.3	13.5	13.5	–0.81	0.02	–0.79					
accomplishment	(13.9–14.6)	(13.1–13.8)	(13.1–13.8)	(–1.28 to –0.35)	(-0.45 to 0.49)	(–1.25 to –0.33)					
Optimism	7.05	6.59	6.50	-0.45	-0.10	–0.55					
	(6.87–7.22)	(6.42–6.77)	(6.32–6.68)	(-0.63 to -0.27)	(-0.29 to 0.10)	(–0.74 to –0.36)					
Resilience (CD-RISC-2)	6.28	6.21	6.10	-0.07	-0.11	–0.18					
	(6.15–6.41)	(6.08–6.34)	(5.96–6.24)	(-0.22 to 0.08)	(-0.26 to 0.04)	(–0.33 to –0.02)					
Wellbeing (PWI-A) $^{\dagger}$	70.0	66.5	66.4	−3.45	-0.08	–3.53					
	(68.1–71.8)	(64. 7–68.3)	(64.6–68.3)	(−5.36 to −1.54)	(-2.05 to 1.90)	(–5.54 to –1.52)					
PWI item 1 (life satisfaction)	69.6	67.2	66.6	-2.44	-0.58	-3.02					
	(67.8–71.5)	(65.3–69.1)	(64.7–68.6)	(-4.03 to -0.84)	(-2.26 to 1.10)	(-4.76 to -1.28)					

**Table 4.** Adjusted mean scores for continuous psychological outcome measures (all occupation groups), by survey, with pairwise comparisons of survey values\*

\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The adjusted mean scores by occupation group are reported in table 7.

<sup>+</sup> PHQ-9: Patient Health Questionnaire - 9 items. GAD-7: Generalized Anxiety Disorder Questionnaire – 7-item scale. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult. aMBI: Abbreviated Maslach Burnout Inventory.



**Figure 5**. Adjusted mean scores for resilience (CD-RISC-2), wellbeing (PWI-A), and life satisfaction (PWI item 1) for respondents, with 95% confidence intervals, by occupation group and survey\*

\* Multiple imputation of missing data, adjusted for age, sex, and socio-economic status. The data for these graphs is included in table 7.

CD-RISC-2: Connor-Davidson Resilience Scale 2-item. PWI-A: Personal Wellbeing Index – Adult.

	Sur	vey 1 ( <i>N</i> =98	39)	Sur	vey 2 ( <i>N</i> =1153	3)	Sur	vey 3 ( <i>N</i> =99	93)
	Yes	No	NA	Yes	No	NA	Yes	No	NA
Workplace support*									
Kept informed on workplace changes	866/947 (91.5%)	81/947 (8.5%)	_	1017/1117 (90.9%)	100/1117 (8.9%)	_	885/977 (90.6%)	92/977 (9.4%)	_
Organisation cares about staff welfare	643/949 (67.8%)	306/949 (32.2%)	_	743/1117 (66.5%)	374/1117 (33.5%)	_	585/977 (59.9%)	392/977 (40.1%)	_
Comfortable to voice concerns within organisation	590/943 (62.6%)	353/943 (37.4%)	_	650/1117 (58.2%)	467/1117 (41.8%)	_	535/975 (54.9%)	440/975 (45.1%)	_
Organisation responded to concerns	534/943 (56.6%)	409/943 (43.4%)	_	647/1116 (58.0%)	469/1116 (42.0%)	_	477/971 (49.1%)	494/971 (50.9%)	_
Psychosocial impact									
Increased alcohol consumption†	270 (31.8%)	580 (68.2%)	139	325 (32.6%)	672 (67.4%)	156	208 (23.7%)	669 (76.3%)	116
Restrictions impacted daily life	714 (72.2%)	275 (27.8%)	0	565 (78.9%)	151 (21.1%)	437	525 (52.9%)	468 (47.1%)	0
Sought mental health support	348 (35.8%)	625 (64.2%)	16	408 (36.1%)	722 (63.9%)	23	367 (37.4%)	614 (62.6%)	12
Considered leaving profession	319 (32.2%)	670 (67.7%)	0	490 (42.5%)	663 (57.5%)	0	536 (54.0%)	457 (46.0%)	0
Socially isolated due to high-risk work environment	222 (22.9%)	750 (77.2%)	17	266 (23.5%)	865 (76.5%)	22	185 (18.9%)	793 (81.1%)	15
Concerns about infection									
Worried about contracting COVID-19 at work	494 (50.1%)	492 (49.9%)	3	765 (66.8%)	380 (33.2%)	8	522 (53.2%)	460 (46.8%)	11
Worried about transmitting COVID-19	554 (56.3%)	430 (43.7%)	5	824 (72.5%)	313 (27.5%)	16	598 (61.0%)	382 (39.0%)	13
Worried about vulnerability to serious complications	461 (46.6%)	528 (53.4%)	0	549 (47.8%)	600 (52.2%)	4	340 (34.4%)	648 (65.6%)	5

## **Table 5**. Perceptions of psychosocial impact, workplace support, and personal COVID-19 risk

NA = no answer (not included in calculations of proportions).

\* Optional questions.

† Since the beginning of the pandemic in surveys 1 and 2, in the past six months in survey 3.

		Survey 1: ac	ljusted propor	tion (95% CI)			Survey 2: ad	justed propor	tion (95% CI)		Survey 3: adjusted proportion (95% CI)				
Psychological scale	Paramedics	Nurses	Allied health	Doctors	Others	Paramedics	Nurses	Allied health	Doctors	Others	Paramedics	Nurses	Allied health	Doctors	Others
Depression <sup>+</sup> (PHQ-9)	0.20	0.21	0.14	0.11	0.18	0.23	0.29	0.21	0.16	0.25	0.21	0.24	0.17	0.14	0.22
	(0.12–0.30)	(0.16–0.28)	(0.09–0.21)	(0.06–0.18)	(0.13–0.25)	(0.14– 0.34)	(0.22–0.36)	(0.15–0.29)	(0.10–0.25)	(0.18–0.33)	(0.14–0.30)	(0.18–0.31)	(0.12–0.24)	(0.08–0.22)	(0.15–0.29)
PHQ item 9 <sup>‡</sup>	0.04	0.10	0.05	0.05	0.06	0.06	0.10	0.10	0.07	0.13	0.10	0.11	0.07	0.08	0.11
	(0.02–0.09)	(0.06– 0.16)	(0.03–0.10)	(0.02–0.11)	(0.03– 0.11)	(0.03–0.13)	(0.07–0.15)	(0.06–0.16)	(0.03–0.13)	(0.09–0.20)	(0.05–0.19)	(0.07–0.16)	(0.04–0.13)	(0.04–0.15)	(0.07–0.17)
Anxiety <sup>+</sup> (GAD-7)	0.09	0.13	0.07	0.06	0.11	0.14	0.20	0.15	0.14	0.18	0.11	0.14	0.09	0.09	0.11
	(0.05–0.15)	(0.09–0.18)	(0.04–0.11)	(0.03–0.12)	(0.07–0.16)	(0.08–0.23)	(0.15–0.26)	(0.10–0.21)	(0.09–0.22)	(0.13–0.25)	(0.07–0.18)	(0.10–0.20)	(0.05–0.15)	(0.05–0.16)	(0.08–0.17)
GAD-7 item 6 <sup>‡</sup>	0.63	0.67	0.53	0.63	0.61	0.70	0.75	0.74	0.61	0.67	0.71	0.72	0.57	0.57	0.62
	(0.48–0.76)	(0.59–0.74)	(0.43–0.63)	(0.51–0.73)	(0.52, 0.69)	(0.56–0.81)	(0.68–0.81)	(0.65–0.81)	(0.50–0.71)	(0.58–0.74)	(0.59–0.80)	(0.64–0.79)	(0.46–0.67)	(0.45–0.68)	(0.53–0.70)
Post-traumatic stress <sup>+</sup>	0.20	0.20	0.10	0.09	0.17	0.36	0.41	0.32	0.33	0.34	0.17	0.17	0.13	0.11	0.18
(IES-6)	(0.12–0.31)	(0.15–0.26)	(0.06–0.16)	(0.05–0.16)	(0.12, 0.24)	(0.25–0.50)	(0.33–0.49)	(0.24–0.41)	(0.24–0.43)	(0.27–0.43)	(0.11–0.27)	(0.12–0.22)	(0.09–0.20)	(0.06–0.18)	(0.13–0.25)
Burnout (aMBI)															
Emotional exhaustion <sup>+</sup>	0.71	0.75	0.71	0.65	0.59	0.81	0.83	0.79	0.71	0.67	0.79	0.80	0.74	0.61	0.65
	(0.57–0.82)	(0.68–0.82)	(0.61–0.80)	(0.53–0.75)	(0.49–0.68)	(0.70–0.89)	(0.77–0.88)	(0.70–0.85)	(0.61–0.80)	(0.58–0.75)	(0.67–0.87)	(0.73–0.85)	(0.65–0.82)	(0.48–0.73)	(0.55–0.74)
Depersonalisation <sup>+</sup>	0.53	0.29	0.20	0.20	0.17	0.61	0.44	0.34	0.41	0.29	0.57	0.37	0.26	0.40	0.33
	(0.38–0.67)	(0.22–0.38)	(0.13–0.28)	(0.13–0.30)	(0.11, 0.25)	(0.46–0.74)	(0.36–0.52)	(0.25–0.45)	(0.30–0.53)	(0.21–0.39)	(0.43– 0.70)	(0.29–0.46)	(0.18–0.36)	(0.28–0.52)	(0.24–0.44)
Personal	0.60	0.46	0.39	0.40	0.45	0.60	0.59	0.53	0.57	0.57	0.71	0.62	0.50	0.55	0.52
accomplishment <sup>+</sup>	(0.48–0.71)	(0.38–0.53)	(0.30–0.48)	(0.30–0.52)	(0.35, 0.55)	(0.48–0.71)	(0.52–0.66)	(0.44–0.62)	(0.46–0.67)	(0.48–0.66)	(0.61–0.79)	(0.54–0.69)	(0.40–0.60)	(0.43–0.65)	(0.41–0.63)
Optimism <sup>§</sup>	0.53	0.42	0.51	0.60	0.52	0.35	0.32	0.35	0.43	0.37	0.34	0.32	0.37	0.48	0.32
	(0.40–0.65)	(0.35–0.50)	(0.42–0.60)	(0.49–0.70)	(0.44, 0.60)	(0.23–0.48)	(0.26–0.38)	(0.27–0.43)	(0.34–0.54)	(0.30, 0.45)	(0.24–0.45)	(0.25–0.39)	(0.29–0.47)	(0.37–0.58)	(0.25–0.40)

Table 6. Adjusted proportions for binary psychological outcome measures, by occupation group and survey\*

\* Adjusted proportions obtained from generalised linear mixed models adjusted for age, gender and socio-economic status decile, with multiple imputation of missing data.

<sup>+</sup> Proportions correspond to moderate to severe symptoms category.

**‡** Proportions correspond to several days or more.

§ Proportions correspond to "high optimism".

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. aMBI: Abbreviated Maslach Burnout Inventory

		Survey 1:	adjusted mea	n (95% Cl)			Survey 2:	adjusted mea	in (95% Cl)		Survey 3: adjusted mean (95% CI)				
Psychological scale	Paramedics	Nurses	Allied health	Doctors	Others	Paramedics	Nurses	Allied health	Doctors	Others	Paramedics	Nurses	Allied health	Doctors	Others
Depression (PHQ-9)	6.21	6.80	5.38	4.87	6.11	7.22	8.12	6.97	6.26	7.56	6.94	7.27	6.21	5.51	6.62
	(4.92–7.50)	(6.05–7.54)	(4.44–6.32)	(3.90–5.84)	(5.32–6.89)	(5.94–8.50)	(7.38–8.86)	(6.10–7.84)	(5.29–7.23)	(6.75–8.36)	(5.77–8.11)	(6.48–8.05)	(5.29–7.13)	(4.50–6.51)	(5.81–7.42)
Anxiety (GAD-7)	4.64	5.15	3.99	3.71	4.78	5.92	6.23	5.60	4.80	5.75	5.16	5.65	4.52	4.17	5.11
	(3.32–5.95)	(4.43–5.86)	(3.13–4.84)	(2.82–4.59)	(4.04–5.51)	(4.58–7.26)	(5.54–6.93)	(4.80–6.40)	(3.92–5.68)	(5.03–6.47)	(3.94–6.39)	(4.92–6.37)	(3.66–5.37)	(3.26–5.09)	(4.38–5.84)
Post-traumatic stress	1.04	1.02	0.80	0.77	0.95	1.38	1.45	1.23	1.24	1.30	0.95	0.91	0.83	0.80	0.92
(IES-6)	(0.82–1.26)	(0.90–1.15)	(0.66–0.94)	(0.62–0.93)	(0.83–1.08)	(1.16–1.59)	(1.32–1.57)	(1.09–1.38)	(1.09–1.40)	(1.18–1.43)	(0.75–1.15)	(0.79–1.04)	(0.68–0.98)	(0.64–0.96)	(0.79–1.05)
Resilience (CD-RISC-2)	6.42 (6.08–6.75)	6.22 (6.03–6.40)	6.16 (5.94–6.38)	6.36 (6.12–6.60)	6.24 (6.05–6.43)	6.35 (6.04–6.67)	6.14 (5.97–6.32)	6.08 (5.87–6.30)	6.23 (5.98–6.47)	6.24 (6.05–6.44)	6.27 (5.96–6.58)	6.04 (5.84–6.25)	5.92 (5.68–6.15)	6.20 (5.93–6.46)	6.09 (5.89– s6.28)
Wellbeing (PWI-A)	68.9	67.2	71.0	74.7	68.0	66.2	63.9	66.8	69.6	66.0	66.0	64.0	67.5	69.4	65.3
	(64.2–73.5)	(64.7–69.8)	(68.1–73.8)	(71.6–77.8)	(65.4–70.6)	(61.7–70.7)	(61.5–66.3)	(64.0–69.6)	(66.5–72.7)	(63.5–68.5)	(61.8–70.2)	(61.5–66.5)	(64.5–70.4)	(66.2–72.6)	(62.7–67.8)
PWI it. 1 (life satisfaction)	68.2	66.7	70.6	74.5	68.2	67.4	64.2	66.5	70.9	67.1	66.9	64.4	67.0	68.9	66.0
	(63.5–72.9)	(64.0–69.4)	(67.6–73.7)	(71.1–77.8)	(65.4–71.0)	(62.8–72.0)	(61.7–66.8)	(63.5–69.5)	(67.6–74.2)	(64.3–69.9)	(62.4–71.3)	(61.5–67.2)	(63.7–70.2)	(65.3–72.6)	(63.1–69.0)
Burnout (aMBI)															
Emotional exhaustion	9.14 (7.72– 10.57)	9.65 (8.89– 10.41)	8.88 (8.01–9.74)	8.07 (7.14–8.99)	7.98 (7.22–8.73)	10.8 (9.40– 12.10)	10.9 (10.17– 11.60)	9.85 (9.03– 10.68)	9.12 (8.24– 10.00)	8.65 (7.89–9.42)	10.36 (9.12– 11.60)	10.27 (9.50– 11.04)	9.29 (8.41– 10.17)	8.43 (7.45–9.41)	8.58 (7.76–9.40)
Depersonalisation	5.09	3.15	2.42	2.57	2.36	5.57	4.27	3.50	4.10	3.00	6.10	3.92	2.91	4.12	3.30
	(4.04–6.13)	(2.56–3.74)	(1.75–3.08)	(1.84–3.29)	(1.72–3.01)	(4.46–6.68)	(3.70–4.85)	(2.82–4.17)	(3.37–4.82)	(2.35–3.65)	(5.02–7.18)	(3.30–4.53)	(2.21–3.61)	(3.28–4.96)	(2.59–4.00)
Personal	13.2	14.4	14.8	14.6	14.4	13.4	13.2	13.7	13.7	13.3	12.9	13.1	13.9	13.6	13.8
accomplishment	(12.4–14.0)	(14.0–14.9)	(14.2–15.4)	(14.0–152)	(13.8–15.0)	(12.5–14.2)	(12.8–13.7)	(13.2–14.3)	(13.1–14.3)	(12.7–13.9)	(12.1–13.7)	(12.7–13.6)	(13.4–14.4)	(13.0–14.2)	(13.2–14.4)
Optimism	7.04	6.76	7.08	7.31	7.03	6.52	6.44	6.62	6.76	6.63	6.40	6.31	6.59	6.80	6.39
	(6.58–7.50)	(6.50–7.03)	(6.78–7.38)	(6.98–7.65)	(6.76–7.31)	(6.04–7.01)	(6.2–6.68)	(6.33–6.91)	(6.42–7.09)	(6.34–6.91)	(5.97–6.83)	(6.03–6.58)	(6.27–6.91)	(6.45–7.14)	(6.10–6.68)

Table 7. Adjusted means for continuous psychological outcome measures, by occupation group and survey\*

\* Adjusted mean outcomes obtained from linear mixed models adjusted for age, gender and socio-economic status decile, with multiple imputation of missing data.

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult. aMBI: Abbreviated Maslach Burnout Inventory

## **Complete case analyses**

	Adj	usted proportion (95%	% CI)		Odds ratio (95% CI)					
Psychological scale	Survey 1	Survey 2	Survey 3	Survey 2 <i>v</i> survey 1	Survey 3 <i>v</i> survey 2	Survey 3 <i>v</i> survey 1				
PHQ-9 – Depression <sup>†</sup>	0.18 (0.15–0.23)	0.25 (0.20–0.30)	0.21 (0.17–0.26)	1.46 (1.14–1.87)	0.80 (0.63–1.02)	1.17 (0.90–1.52)				
PHQ item 9 <sup>‡</sup>	0.07 (0.05–0.09)	0.10 (0.08–0.13)	0.09 (0.07–0.12)	1.67 (1.18–2.38)	0.88 (0.64–1.22)	1.48 (1.02–2.13)				
GAD-7 – Anxiety †	0.10 (0.08–0.13)	0.18 (0.15–0.21)	0.13 (0.10–0.16)	1.88 (1.41–2.52)	0.69 (0.53–0.90)	1.30 (0.95–1.77)				
GAD-7 item 6 <sup>‡</sup>	0.61 (0.55–0.66)	0.69 (0.64–0.74)	0.63 (0.58–0.68)	1.47 (1.18–1.82)	0.75 (0.60–0.93)	1.10 (0.89–1.37)				
IES-6 Post-traumatic stress <sup>†</sup>	0.15 (0.12–0.20)	0.36 (0.29–0.43)	0.17 (0.13–0.21)	3.11 (2.43–3.98)	0.36 (0.28–0.45)	1.11 (0.85–1.46)				
aMBI – Burnout †										
Emotional Exhaustion	0.68 (0.62–0.73)	0.75 (0.70–0.80)	0.71 (0.65–0.76)	1.46 (1.16–1.84)	0.80 (0.64–1.02)	1.17 (0.93–1.48)				
Depersonalization	0.29 (0.23–0.35)	0.43 (0.37–0.50)	0.39 (0.33–0.46)	1.93 (1.49–2.49)	0.84 (0.65–1.07)	1.61 (1.23–2.10)				
Personal Accomplishment	0.46 (0.41–0.52)	0.58 (0.53–0.63)	0.58 (0.53–0.63)	1.60 (1.20–2.13)	1.00 (0.76–1.32)	1.60 (1.20–2.14)				
Optimism§	0.52 (0.48–0.56)	0.37 (0.33–0.41)	0.37 (0.33–0.41)	0.54 (0.43–0.66)	1.02 (0.83–1.26)	0.55 (0.44–0.68)				

Table 8. Adjusted proportions and pairwise comparison for binary psychological outcome measures (all respondents), by survey\*

\* Adjusted mean outcomes obtained from linear mixed models adjusted for age, gender and socio-economic status decile.

† Proportions correspond to moderate to severe symptoms category.

‡ Proportions correspond to several days or more.

§ Proportions correspond to "high optimism".

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult. aMBI: Abbreviated Maslach Burnout Inventory

**Table 9.** Adjusted mean scores for continuous psychological outcome measures (all occupation groups), by survey, with pairwise comparisons of survey values, complete cases\*

Developing and		Adjusted mean (95% Cl)		Mean difference (95% CI)						
Psychological scales	Survey 1	Survey 2	Survey 3	Survey 2 <i>v</i> survey 1	Survey 3 <i>v</i> survey 2	Survey 3 v survey 1				
PHQ-9 – Depression †	5.98 (5.44–6.51)	7.23 (6.70–7.75)	6.38 (5.85–6.92)	1.25 (0.68–1.83)	-0.84 (-1.42 to -0.27)	0.41 (-0.18 to 1.00)				
GAD-7 – Anxiety †	4.45 (3.80–5.10)	5.69 (5.04–6.34)	4.85 (4.19–5.50)	1.24 (0.78–1.70)	-0.85 (-1.31 to -0.39)	0.40 (-0.07 to 0.86)				
IES-6 Post-traumatic stress <sup>†</sup>	0.90 (0.79–1.01)	1.33 (1.22–1.43)	0.88 (0.77–0.98)	0.43 (0.35–0.50)	-0.45 (-0.52 to -0.38)	-0.02 (-0.10 to 0.05)				
CD-RISC-2 - Resilience	6.30 (6.17–6.42)	6.20 (6.08–6.32)	6.12 (6.00–6.25)	-0.09 (-0.23 to 0.04)	-0.08 (-0.21 to 0.05)	-0.17 (-0.31 to -0.04)				
PWI-A - Wellbeing										
PWI-A (Wellbeing)	69.83 (68.02–71.64)	66.34 (64.56–68.13)	66.35 (64.55–68.15)	-3.48 (-4.85 to -2.12)	0.01 (-1.35 to 1.36)	-3.48 (-4.85 to -2.10)				
PWI Item 1 (Life Satisfaction)	69.74 (67.71–71.76)	67.06 (65.05–69.07)	66.81 (64.80–68.83)	-2.68 (-3.82 to -1.54)	-0.24 (-1.39 to 0.91)	-2.92 (-4.11 to -1.73)				
aMBI – Burnout <sup>†</sup>										
Emotional Exhaustion	8.80 (8.23–9.36)	9.83 (9.27–10.39)	9.38 (8.81–9.95)	1.04 (0.53–1.55)	-0.45 (-0.97 to 0.06)	0.59 (0.07–1.11)				
Depersonalization	3.18 (2.67–3.68)	4.16 (3.67–4.66)	4.06 (3.56–4.57)	0.99 (0.51–1.46)	-0.10 (-0.58 to 0.38)	0.89 (0.40–1.37)				
Personal Accomplishment	14.1 (13.9–14.4)	13.4 (13.2–13.6)	13.4 (13.2–13.6)	-0.72 (-0.95 to -0.49)	-0.04 (-0.27 to 0.19)	-0.76 (-1.00 to -0.52)				
Optimism §	7.05 (6.89–7.21)	6.56 (6.40–6.72)	6.52 (6.36–6.68)	-0.49 (-0.61 to -0.36)	-0.04 (-0.17 to 0.09)	-0.53 (-0.66 to -0.39)				

\* Adjusted mean outcomes obtained from linear mixed models adjusted for age, gender and socio-economic status decile.

† Proportions correspond to moderate to severe symptoms category.

‡ Proportions correspond to several days or more.

§ Proportions correspond to "high optimism".

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult. aMBI: Abbreviated Maslach Burnout Inventory.

	Survey 1 (Mid-2021), adjusted mean (95% Cl					Survey	2 (Late-20	21), adjus	ted mean	(95% CI)	Survey 3 (Mid-2022), adjusted mean (95% Cl)					
Validated scales	Paramedi cs	Nurses	Allied Health	Doctors	Others	Paramedi cs	Nurses	Allied Health	Doctors	Others	Paramedi cs	Nurses	Allied Health	Doctors	Others	
PHQ-9 -	6.60	6.89	5.39	4.77	6.23	7.19	8.20	6.89	6.28	7.57	6.67	7.18	6.19	5.37	6.51	
Depression	(5.37– 7.82)	(6.14– 7.63)	(4.51– 6.27)	(3.79– 5.75)	(5.45– 7.01)	(5.96– 8.42)	(7.51– 8.90)	(6.05– 7.72)	(5.33– 7.24)	(6.81– 8.33)	(5.51– 7.83)	(6.44– 7.93)	(5.30– 7.08)	(4.37– 6.37)	(5.71– 7.31)	
GAD-7 -	4.75	5.16	3.97	3.62	4.74	5.84	6.33	5.64	4.81	5.84	4.96	5.63	4.54	4.10	5.00	
Anxiety	(3.34– 6.15)	(4.41– 5.91)	(3.13– 4.81)	(2.72– 4.53)	(3.99– 5.50)	(4.45– 7.24)	(5.61– 7.05)	(4.83– 6.44)	(3.93– 5.69)	(5.10– 6.58)	(3.55– 6.38)	(4.88– 6.38)	(3.69– 5.38)	(3.18– 5.01)	(4.24– 5.76)	
IES-6 Post-	1.03	1.02	0.78	0.73	0.94	1.39	1.45	1.24	1.25	1.30	0.94	0.90	0.83	0.81	0.91	
traumatic	(0.80-	(0.89–	(0.63–	(0.57–	(0.81–	(1.16–	(1.33–	(1.10-	(1.09–	(1.17–	(0.72–	(0.77–	(0.68–	(0.64–	(0.77–	
stress	1.26) 6.46	1.15) 6.22	0.93) 6.18	0.90) 6.37	1.07) 6.25	1.62) 6.37	1.57) 6.14	1.38) 6.07	1.41) 6.21	1.43) 6.23	1.17) 6.28	1.03) 6.07	0.98) 5.92	0.97) 6.21	1.04) 6.13	
CD-RISC-2 -	(6.18–	(6.04–	(5.97–	(6.14–	(6.06–	(6.09–	(5.97–	(5.87–	(5.98–	(6.04–	(6.01–	(5.89–	(5.71–	(5.97–	(5.94–	
Resilience	6.75)	6.39)	6.39)	6.61)	6.44)	6.66)	6.30)	6.27)	6.44)	6.41)	6.55)	6.25)	6.14)	6.45)	6.32)	
PWI-A - Wellbeing																
PWI-A	68.84	66.73	71.02	74.64	67.90	66.62	63.68	66.41	69.17	65.83	66.32	63.72	67.03	69.41	65.29	
(Wellbeing)	(64.85 <i>,</i> 72.83)	(64.43– 69.02)	(68.34– 73.70)	(71.69– 77.60)	(65.52– 70.29)	(62.63– 70.60)	(61.47– 65.89)	(63.83– 68.99)	(66.29– 72.06)	(63.49– 68.17)	(62.33– 70.30)	(61.42– 66.01)	(64.34– 69.72)	(66.42– 72.39)	(62.87– 67.71)	
PWI Item 1	68.70	66.07	70.99	74.77	68.16	67.76	63.81	66.24	70.82	66.66	67.06	64.55	66.70	69.41	66.36	
(Life	(64.18-	(63.48–	(67.92–	(71.38–	(65.46-	(63.22–	(61.32-	(63.32–	(67.51–	(64.02-	(62.62-	(61.93–	(63.60-	(65.95-	(63.59–	
Satisfaction)	73.21)	68.66)	74.06)	78.17)	70.85)	72.29)	66.29)	69.16)	74.13)	69.30)	71.49)	67.17)	69.80)	72.86)	69.13)	
aMBI - Burnout																
Emotional	9.42	9.72	8.85	8.05	7.94	10.74	10.90	9.76	9.17	8.60	10.13	10.36	9.38	8.50	8.53	
Exhaustion	(8.15– 10.68)	(9.02– 10.43)	(8.03– 9.66)	(7.17– 8.93)	(7.20– 8.68)	(9.48– 12.00)	(10.23– 11.58)	(8.98– 10.53)	(8.31– 10.03)	(7.88– 9.33)	(8.91– 11.35)	(9.64– 11.07)	(8.56– 10.20)	(7.60– 9.40)	(7.77– 9.29)	
Donorconalizati	5.24	3.28	2.50	2.55	2.31	5.92	4.26	3.47	4.20	2.96	5.96	3.98	2.90	4.16	3.31	
Depersonalizati on	(4.12-	(2.64–	(1.76-	(1.77–	(1.54–	(4.81–	(3.65-	(2.77–	(3.44–	(2.21-	(4.89–	(3.33–	(2.16-	(3.37-	(2.52-	
Personal	6.36) 13.1	3.92) 14.23	3.23) 14.68	3.33) 14.40	3.09) 14.27	7.04) 13.02	4.87) 13.28	4.17) 13.87	4.96) 13.70	3.71) 13.24	7.03) 12.68	4.63) 13.17	3.65) 13.89	4.95) 13.61	4.10) 13.57	
Accomplishme	(12.62–	(13.87–	(14.2–	(13.87–	(13.69–	(12.49–	(12.94–	(13.43–	(13.19–	(12.70–	(12.26–	(12.80-	(13.41–	(13.06-	(12.98–	
nt	13.65)	14.59)	15.15)	14.93)	14.86)	13.55)	13.62)	14.31)	14.22)	13.78)	13.10)	13.55)	14.37)	14.15)	14.15)	
Optimism	7.05 (6.68–	6.75 (6.51–	7.09 (6.79–	7.37 (7.03–	6.98 (6.73–	6.54 (6.17–	6.38 (6.16–	6.57 (6.30–	6.70 (6.38–	6.60 (6.35–	6.46 (6.12–	6.35 (6.10–	6.55 (6.25–	6.81 (6.47–	6.44 (6.17–	
opunish	(0.08– 7.41)	(0.31– 6.99)	7.38)	(7.03– 7.70)	(0.73– 7.24)	(0.17– 6.92)	6.60)	(0.30– 6.85)	(0.38– 7.03)	(0.33– 6.85)	(0.12– 6.79)	(0.10– 6.59)	(0.2 <i>3</i> – 6.85)	7.15)	(0.17– 6.71)	

Table 10. Adjusted means for continuous psychological outcome measures, by occupation group and survey\*

\* Adjusted mean outcomes obtained from linear mixed models adjusted for age, gender and socio-economic status decile

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. CD-RISC-2: Connor-Davidson Resilience Scale – 2 items. PWI-A: Personal Wellbeing Index – Adult. aMBI: Abbreviated Maslach Burnout Inventory.

	Survey 1	(mid-2021),	adjusted pr	Survey 2	(late-2021), a	Survey 3 (mid-2022), adjusted proportion (95% CI)											
Validated scales	Paramedics	Nurses	Allied Health	Doctors	Others	Paramedics	Nurses	Allied Health	Doctors	Others	Paramedics	Nurses	Allied Health	Doctors	Others		
PHQ-9	0.27	0.23	0.14	0.12	0.21	0.28	0.31	0.22	0.18	0.26	0.22	0.24	0.21	0.15	0.24		
Depression <sup>†</sup>	(0.17–0.40)	(0.17–	(0.09–0.21)	(0.07–	(0.15–	(0.18–0.42)	(0.24–0.38)	(0.16–	(0.12-	(0.20-	(0.14–0.32)	(0.18–	(0.14–	(0.09–	(0.17–		
Depression	(0.1. 0)	0.30)	, ,	0.2)	0.28)	(0.10 0.11)	, ,	0.3)	0.27)	0.34)	(0.2.1 0.02.)	0.31)	0.29)	0.25)	0.33)		
	0.05 (0.03-	0.12	0.05	0.05	0.07	0.08 (0.04– 0.15)	0.12	0.11	0.09	0.15	0.09 (0.05– 0.15)	0.11	0.08	0.08	0.12		
PHQ item 9 <sup>‡</sup>	0.11)	(0.08-	(0.03-	(0.02-	(0.04–		(0.08-	(0.07-	(0.05-	(0.10-		(0.07-	(0.05-	(0.04-	(0.07-		
	-	0.17)	0.1) 0.07	0.11) 0.08	0.11) 0.13		0.16) 0.22	0.16) 0.16	0.15) 0.16	0.21) 0.20		0.16) 0.16	0.15) 0.11	0.16) 0.13	0.18) 0.13		
GAD-7 – Anxiety <sup>†</sup>	0.12 (0.07–	0.15 (0.1–	(0.07	(0.08	(0.09–	0.15 (0.09–	(0.17–	(0.10	(0.10-	(0.15–	0.12 (0.08– 0.18)	(0.10	(0.07–	(0.15	(0.09–		
GAD-7 - Anxiety	0.19)	0.21)	0.12)	0.15)	0.19)	0.24)	0.28)	0.23)	0.25)	0.27)		0.22)	0.18)	0.22)	0.19)		
GAD-7 item 6 <sup>‡</sup>	0.65 (0.52– 0.76)	0.66	0.51	0.62	0.60		,	0.73	0.61	0.66	0.69 (0.58– 0.78)	0.70	0.57	0.55	0.61		
		(0.58-	(0.41-	(0.51-	(0.51-	0.71 (0.58–	0.75	(0.65-	(0.51-	(0.58-		(0.62-	(0.47-	(0.44-	(0.52-		
		0.73)	0.6)	0.72)	0.68)	0.81)	(0.69–0.8)	0.8)	0.71)	0.73)		0.77)	0.67)	0.66)	0.70)		
IES-6 Post-	0.00 (0.40	0.21	0.09	0.08	0.19	0.00 (0.04	0.41	0.32	0.35	0.34	0 40 (0 44	0.18	0.15	0.12	0.20		
+	0.23 (0.13– 0.37)	(0.15-	(0.06-	(0.04-	(0.14–	0.38 (0.24– 0.54)	(0.33–	(0.24–	(0.25-	(0.26-	0.19 (0.11– 0.31)	(0.13-	(0.10-	(0.07–	(0.14–		
traumatic stress	0.57)	0.28)	0.15)	0.15)	0.26)	0.54)	0.49)	0.41)	0.46)	0.43)	0.51)	0.25)	0.22)	0.21)	0.27)		
aMBI – Burnout <sup>†</sup>																	
Emotional	0.69 (0.54– 0.81)	0.76	0.68	0.66	0.60	0 70 /0 00	0.82	0.78	0.71	0.66	0.75 (0.63– 0.85)	0.78	0.76	0.60	0.63		
Emotional		(0.68–	(0.58–	(0.54–	(0.5–	0.79 (0.66– 0.88)	(0.76–	(0.69–	(0.6-	(0.57–		(0.71–	(0.67–	(0.47–	(0.53–		
Exhaustion		0.82)	0.77)	0.76)	0.68)		0.87)	0.84)	0.8)	0.74)		0.84)	0.84)	0.71)	0.72)		
	0.57 (0.42–	0.33	0.21	0.22	0.17	0.66 (0.5– 0.79)	0.44	0.34	0.42	0.32	0.57 (0.43–	0.37	0.28	0.38	0.37		
Depersonalization	0.72)	(0.25–	(0.14–	(0.14–	(0.11–		(0.36–	(0.25–	(0.31–	(0.22–	0.57 (0.45	(0.28–	(0.20–	(0.27–	(0.25–		
		0.42)	0.3)	0.32)	0.27)		0.53)	0.44)	0.54)	0.43)		0.47)	0.39)	0.51)	0.50)		
Personal	0.61 (0.49–	0.48 (0.4–	0.38	0.40 (0.3–	0.44	2- 0.63 (0.51-	0.61	0.53	0.59	0.53	0.72 (0.62– 0.80)	0.61	0.51	0.54	0.50		
Accomplishment	0.71)	0.56)	(0.29–	0.51)	(0.32-		(0.54–	(0.44–	(0.48-	(0.42-		(0.53–	(0.41-	(0.42-	(0.38–		
	0.51		0.56)	- ,	0.67)	0.62)	0.69)	0.64)	,	0.68)	0.62)	0.65)	0.62)				
	0.55 (0.44–	0.41	0.51	0.61	0.52	0.36 (0.27–	0.31	0.35	0.45	0.37	0.38 (0.30–	0.32	0.35	0.50	0.32		
Optimism <sup>§</sup>	0.55 (0.44–	(0.35–	(0.42–	(0.50-	(0.44–	0.30 (0.27–	(0.26–	(0.28–	(0.35–	(0.30–	0.38 (0.30–	(0.26-	(0.27–	(0.39–	(0.25–		
	0.05)	0.48)	0.60)	0.71)	0.59)	0.47)	0.37)	0.43)	0.55)	0.44)	0.40)	0.39)	0.45)	0.61)	0.40)		

#### Table 11. Adjusted proportions for binary psychological outcome measures, by occupation group and survey\*

\* Adjusted proportions obtained from generalised linear mixed models adjusted for age, gender and socio-economic status decile

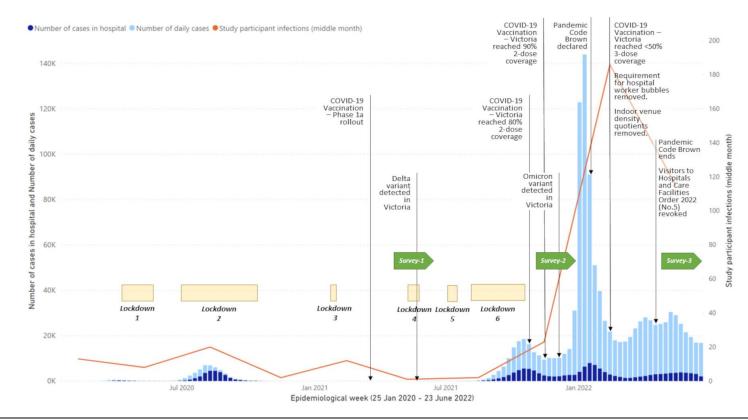
<sup>+</sup> Proportions correspond to moderate to severe symptoms category.

**‡** Proportions correspond to several days or more.

§ Proportions correspond to "high optimism". [Au: Need to replace letters ie, b, c and d in the table with the appropriate symbols]

PHQ-9: Patient Health Questionnaire – 9 items. GAD-7: Generalized Anxiety Disorder 7 items. IES-6: Impact of Event Scale – 6 items. aMBI: Abbreviated Maslach Burnout Inventory

#### Figure 6. Epidemiological curve of weekly COVID-19 case numbers and cases in hospital in Victoria, with key events and milestones



\* This figure was constructed using Victorian COVID-19 data until 23 June 2022<sup>9,10</sup>; Victorian COVID-19 public health restrictions until 12 July 2022<sup>.11,12</sup> Study participant infections are the number of infections reported by study participants over 3-month intervals (shown on the graph at the 15th of each middle month).

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