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Impact of the COVID-19 Pandemic on Training, Morale and Well-Being Among the UK Renal Workforce



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When the COVID-19 pandemic reached the United Kingdom in early 2020,¹ adaptive reconfigurations were rapidly implemented within health care teams, including the renal workforce. Widespread changes included increased shift patterns, redeployment of staff, and the return of individuals undertaking academic secondments to clinical work.² Furthermore, vulnerable staff members were advised to “shield,”³ triggering a redistribution of responsibilities between those compelled to work remotely and those on the frontline. We sought to characterize the impacts of these changes on the UK renal workforce.

An online questionnaire incorporating the Maslach Burnout Inventory was distributed to the UK Renal Association membership (professional body for the UK renal community, including doctors, scientists and multi-professional team members) between July 22 and August 28, 2020 (Supplementary Methods and Questionnaire within Supplementary Material).⁴ The survey link was sent to all UK Renal Association members by e-mail (with one reminder), was distributed to all medical trainees by the Renal SpR Club (trainee body affiliated with the UK Renal Association) via text message and e-mail, and was advertised on Twitter. Responses were received from 195 individuals. There was a slight female preponderance in respondents; 74% were of white ethnicity and 35% were consultants. Three-quarters of the respondents were working full time, 41% lived with children under the age of 18 years, and 14% were shielding (Table 1). Demographics of members of the UK Renal Association are summarized in Supplementary Table 1.

Three-quarters of respondents felt supported by their department, but there were significant repercussions relating to role reconfigurations. Half of doctors and nurses reported changes in their job role; these were decided at the local hospital level and were not consistent across the United Kingdom. Those who underwent reconfigurations reported an increased workload (61% among those reconfigured vs. 38% among those remaining in their pre-pandemic role), poorer work-life balance (55% vs. 37%), increased fatigue (51% vs. 40%), reduced supervision (24% vs. 12%), fewer educational opportunities (64% vs. 55%), and a reduced sense of comradery (24% vs. 16%).

A multivariable logistic regression model was performed to examine associations between demographic and working environment variables and the three burnout scales. Of the 195 respondents, 155 completed the questions examining burnout. Of these, 54% of all respondents and 60% of those who underwent role reconfigurations scored on one of the Maslach Burnout Inventory subscales indicating burnout. Trainee doctors and redeployed staff both reported greater levels of depersonalization, and gender and ethnicity differences were also apparent (Table 2). Personal accomplishment levels were higher in the 55- to 64-year-old age group (multivariable odds ratio: 0.07; 95% confidence interval: 0.01 to 0.75).

Of those shielding, remote working was possible for 80% of doctors and nurses, and 50% of allied health professionals. Although 86% of individuals reported that the tasks allocated were suitable for their role, only half of trainee doctors felt they had appropriate supervision while working remotely.

Table 1. Demographics of survey respondents

	Number of respondents (%)	Number with burnout (%) ^a
Total	195 (100)	83 (100) of 155 respondents
Age group, years (n = 195)		
25-34	38 (19)	18 (60)
35-44	48 (25)	22 (51)
45-54	61 (31)	31 (61)
55-64	37 (19)	8 (33)
≥65	9 (5)	4 (57)
Prefer not to say	2 (1)	—
Sex (n = 195)		
Male	72 (37)	31 (51)
Female	121 (62)	52 (55)
Prefer not to say	2 (1)	—
Ethnicity (n = 195)		
White	144 (74)	61 (54)
Asian	33 (17)	17 (53)
Black	10 (5)	4 (50)
Mixed	3 (2)	1 (50)
Prefer not to say	5 (2)	—
Profession (n = 195)		
Consultant	68 (35)	31 (49)
Medical Trainees	52 (27)	24 (57)
Nurse	43 (22)	17 (53)
Allied health professional	14 (8)	6 (67)
Other	18 (9)	5 (56)
Working pattern (n = 195)		
Full time	149 (76)	65 (55)
Less than full time	46 (24)	18 (50)
Living situation (n = 191)		
Alone	26 (13)	11 (55)
With partner/family	77 (40)	32 (56)
With children <18 years of age	78 (41)	36 (49)
Friends	5 (3)	4 (80)
Prefer not to say	5 (3)	—
Shielding (n = 155)		
No	134 (86)	72 (54)
Yes	21 (14)	11 (52)

^aThis column demonstrates the number and percentage of individuals within each category that scored for burnout on at least one of the Maslach Burnout Inventory subscales.

Training opportunities were adversely affected. More than 75% of trainees reported reduced access to specialty clinics, transplantation, and procedures. Additionally, 14% reported unplanned extensions to training time, and 23% felt the pandemic had negatively impacted career plans. This was reported particularly among academic clinicians, who raised concerns regarding the availability of future funding. A loss of developmental opportunities was also reported by consultants and allied health professionals.

Despite these challenges, rapid positive adaptations in the delivery of teaching and training were reported. All trainees felt aspects of their training had improved with better access to remote working and discussions around end-of-life care being largely reported as positive developments. All professional groups reported an increased use of online resources, and

doctors reported increased use of pre-print articles highlighting the value placed on maintaining evidence-based practice as the global knowledge base evolved.

Free-text responses to the questionnaire were examined using an inductive thematic analysis. The demographics of the 155 individuals who submitted free-text responses were broadly representative of those responding to the survey as a whole ([Supplementary Table 2](#)).

Four main themes were identified: emotional impact, teamwork, perception of leadership/management, and change to work/education patterns ([Supplementary Table 3](#)). Daily pressures related to unexpected workplace changes were perceived as strongly negative experiences, whereas those shielding described feeling isolated:

Table 2. Multivariable logistic regression model examining factors associated with burnout^a

	High emotional exhaustion (n = 52 of 155)		High depersonalization (n = 35 of 155)		Low personal accomplishment (n = 49 of 155)	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
Age group, years (ref: 25-34)						
35-44	0.64 (0.18 – 2.25)	0.49	1.39 (0.29 – 6.61)	0.68	1.35 (0.38 – 4.71)	0.64
45-54	0.89 (0.21 – 3.79)	0.88	3.45 (0.51 – 23.35)	0.21	1.07 (0.26 – 4.38)	0.93
55-64	0.67 (0.13 – 3.50)	0.64	0.75 (0.09 – 6.43)	0.79	0.07 (0.01 – 0.75)	0.03
≥65	—	—	—	—	0.83 (0.03 – 20.67)	0.91
Sex (ref: female)						
Male	0.366 (0.27 – 1.61)	0.36	3.47 (1.10 – 10.99)	0.03	0.83 (0.33 – 2.08)	0.69
Ethnicity (ref: white)						
Asian	0.71 (0.26 – 1.91)	0.50	0.28 (0.08 – 0.94)	0.04	0.57 (0.21 – 1.60)	0.29
Black	0.68 (0.10 – 4.77)	0.70	—	—	0.48 (0.07 – 3.54)	0.47
Profession (ref: consultant)						
Medical trainee	1.51 (0.42 – 5.247)	0.53	5.78 (1.09 – 30.63)	0.04	1.24 (0.35 – 4.44)	0.73
Nurse	0.49 (0.15 – 1.67)	0.26	0.81 (0.16 – 3.95)	0.79	0.67 (0.19 – 2.37)	0.54
Allied health professional	0.41 (0.07 – 2.61)	0.35	0.51 (0.04 – 6.44)	0.60	2.21 (0.36 – 13.38)	0.39
Living arrangement (ref: alone)						
Adults ≥18 years	1.24 (0.35 – 4.38)	0.74	1.86 (0.37 – 9.36)	0.45	0.96 (0.28 – 3.27)	0.95
Dependents <18 years	0.68 (0.20 – 2.33)	0.54	0.35 (0.07 – 1.7)	0.19	0.41 (0.12 – 1.38)	0.15
Working pattern (ref: in usual department)						
Shielding	1.03 (0.23 – 4.72)	0.97	4.24 (0.77 – 23.30)	0.10	0.80 (0.14 – 4.72)	0.81
Redeployed	1.62 (0.67 – 3.88)	0.28	3.03 (1.04 – 8.83)	0.04	1.51 (0.59 – 3.84)	0.39

CI, confidence interval; OR, odds ratio.

^aModel includes complete cases only (n=155).

“Shielding medics seem to have very much been the forgotten tribe in the pandemic. Particularly trainees. I was surprised at how little support — both practically and pastorally there was, and now that ARCP [Annual Review of Competency Progression: the UK review process to facilitate progression to the next year of training] season has passed, it seems like this period of WFH [working from home] is not going to count towards training which is a real kick in the teeth. I would prefer to be ‘on the front line’ and to be penalized like this for having to shield feels unfair and discriminatory.” (Female, 25- to 34-year-old group)

For trainees, implementation of roster changes without consultation and training uncertainty were also key areas of concern. Across the board, better communication between leadership, management, and clinical staff was described as an area needing improvement. Concern about whether differences in experiences were recognized by those in leadership roles was also noted:

“Variation between units as to how trainees and redeployment were managed made some of COVID and the fall out more stressful. Some trainees have had significantly more exposure and difficult experiences than others with little recognition of this centrally.” (Female, 35- to 44-year-old group)

Despite these negative experiences, clinical staff reported improvements in the ability to work as a team and described a feeling of “closeness” through which adversities were overcome:

“...the team have worked amazingly together and have pulled together. But it has affected people in different ways emotionally and physically.” (Female, 35- to 44-year-old group)

The increased use of remote technology was associated with improvements in both work-life balance and quality of patient-clinical staff interactions in outpatient settings:

“Flexible pattern of working from home ... definitely provides better work life balance which I believe is essential to improve productivity, improves job satisfaction, allows overall development as a professional and as a parent. More importantly, has played a big role in improving general well-being especially mental health. I would very strongly support this flexibility.” (Female, 35- to 44-year-old group)

As we encounter further waves of the COVID-19 pandemic,⁵ they are likely to bring fresh challenges. With increasing knowledge of the disease comes new therapeutic strategies and more efficient allocation of resources, but resources will inevitably be stretched by continuing cases of COVID-19 and the imperative to preserve routine and elective care. We must learn from

our experiences and implement sustainable changes in terms of service provision, workforce development, and well-being.⁶ Although there are limitations to this survey, notably in relation to response rate, selection bias, and how representative results are to the whole renal workforce, our results suggest teaching, training, supervision, and the retention of staff in familiar job roles should be prioritized to ensure staff well-being and limit burnout. Improving home working opportunities with adequate support for shielding individuals is essential. Pastoral support, comradery, and mental health days are likely to play an increasingly important role in maintaining morale.

This survey is the first description of the effects of COVID-19 on a renal workforce. Although it highlights the resilience of staff, it also identifies the risk of burnout and emotional exhaustion, particularly among trainees and those redeployed if appropriate action is not taken in future waves or pandemics. Given the fatigue many are feeling from the first wave, there is an urgent need to address these findings.

DISCLOSURES

Licenses for use of the Maslach Burnout Inventory proprietary questions were purchased from mindgarden.com with research funds provided by the Renal Association. PC has received grants from Kidney Research UK and the National Institute of Health Research, and personal fees from Gilead, Napp Pharmaceuticals, and Janssen Pharmaceuticals, all outside of the submitted work. MGB has received speaker honoraria from Napp Pharmaceuticals outside of the submitted work. All the other authors declared no competing interests.

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AUTHOR CONTRIBUTION

HB, MGB, JM and PC designed and provided input in survey design. Survey analysis was performed by HB, AN, MS and HS. All authors contributed to manuscript preparation.

SUPPLEMENTARY MATERIALS

[Supplementary File \(PDF\)](#)

Table S1. Demographics of survey respondents and the UK Renal Association.

Table S2. Demographics of individuals submitting free-text respondents (n = 155).

Table S3. Thematic identification and example quotations from free-text responses.

Supplementary Methods.

Supplementary References.

Study Questionnaire.

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