

## Original research

# BSG cross-sectional survey on impact of COVID-19 recovery on workforce, workload and well-being

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► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/flgastro-2022-102298>).

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Received 20 August 2022  
 Accepted 10 October 2022

## ABSTRACT

**Objective** The aim of this survey was to understand the impact of the COVID-19 pandemic and recovery phase on workload, well-being and workforce attrition in UK gastroenterology and hepatology.

**Design/method** A cross-sectional survey of British Society of Gastroenterology physician and trainee members was conducted between August and October 2021. Multivariable binary logistic regression and qualitative analyses were performed.

**Results** The response rate was 28.8% (180/624 of opened email invites). 38.2% (n=21/55) of those who contracted COVID-19 felt pressured to return to work before they felt ready. 43.8% (71/162) had a regular increase in out-of-hours working. This disproportionately affected newly appointed consultants (OR 5.8), those working full-time (OR 11.6), those who developed COVID-19 (OR 4.1) and those planning early retirement (OR 4.0). 92% (150/164) believe the workforce is inadequate to manage the service backlog with new consultants expressing the highest levels of anxiety over this. 49.1% (80/163) felt isolated due to remote working and 65.9% (108/164) felt reduced face-to-face patient contact made their job less fulfilling. 34.0% (55/162) planned to work more flexibly and 54.3% (75/138) of consultants planned to retire early in the aftermath of the pandemic. Early retirement was independently associated with male gender (OR 2.5), feeling isolated from the department (OR 2.3) and increased anxiety over service backlog (OR 1.02).

**Conclusion** The pandemic has placed an additional burden on work-life balance, well-being and workforce retention within gastroenterology and hepatology. Increased aspirations for early retirement and flexible working need to be explicitly addressed in future workforce planning.

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Data from surveyed Royal College of Physicians members have revealed an increasing risk of burn-out and desire for different working patterns, including flexible and remote working, as the workforce recovers from the COVID-19 pandemic.

## WHAT THIS STUDY ADDS

⇒ This survey identified trends and independent predictors of workload and well-being and a desire by British Society of Gastroenterology (BSG) physician and trainee members to work differently.  
 ⇒ Due to workload pressures exacerbated by the pandemic, 62% planned to change their working patterns, either working more flexibly or retiring early. Contributing factors were anxiety over service pressures, and remote working causing isolation from their department and reduced job satisfaction.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study's findings reveal the additional threats created by the pandemic which include excessive workload, anxiety, risk of burn-out and desire to leave the workforce.  
 ⇒ Interventions increasing staff recruitment, mentoring and peer-support schemes for newly appointed consultants, greater flexible working/training opportunities and guidance for later career gastroenterologists and hepatologists to have phased transition into retirement (rather than early retirement) should be advocated for by the BSG.



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**To cite:** Kabir M, Matharoo M, Dhar A, *et al.* *Frontline Gastroenterology* Epub ahead of print: [please include Day Month Year]. doi:10.1136/flgastro-2022-102298

## INTRODUCTION

The Royal College of Physicians (RCP) Medical Workforce Unit census on

consultant well-being highlighted gastroenterology as one of the major physician specialties at highest risk of burn-out before the COVID-19 pandemic.<sup>1</sup> The pandemic undoubtedly has placed further service pressures on an already overextended gastroenterology and hepatology workforce.<sup>2,3</sup> Elective endoscopy and outpatient waiting lists have increased and the specialty focus has now shifted to tackling this mounting backlog in the recovery phase of the pandemic. The aim of this survey, directed at British Society of Gastroenterology (BSG) physician and trainee members, was to better understand consequences of the COVID-19 pandemic and the postpandemic recovery phase on workload, well-being and workforce attrition. This is critical as the BSG Workforce Report 2021 forewarns of the current inadequacy in consultant number expansion required to address the mounting service demands and shortfalls in capacity.<sup>4</sup>

## METHODS

### Survey design and recruitment

This was a nationwide cross-sectional survey study commissioned by the BSG Supporting Women in Gastroenterology (SWiG) committee and authorised by the BSG Executive committee. The 23-item survey (see online supplemental material 1) was distributed electronically to all physician and trainee members of the BSG, via an emailed newsletter and social media, and remained open over a 6-week period between 18 August 2021 and 1 October 2021. Consent to participate was implied by all participants on completion of the questionnaire. We report this study in line with the Strengthening the Reporting of Observational Studies in Epidemiology cross sectional checklist.<sup>5</sup>

### Data collection and analysis

Statistical analysis was performed using SPSS (IBM SPSS Statistics for Macintosh, V.25.0.). Non-parametrically distributed continuous variables have been reported as medians with IQRs or ranges and statistically significant difference between groups has been tested using a Mann-Whitney U test. Categorical variables are described as raw numbers or percentages and comparison of groups has been made using the  $\chi^2$  test. Multivariable binary logistic regression models include confounding demographic variables and are expressed with ORs with 95% CIs. Respondents with missing variable data were excluded from multivariable analyses. P values <0.05 signify statistical significance. Free-text responses were qualitatively explored using thematic analysis.<sup>6</sup>

## RESULTS

There were 180 responses to the questionnaire. The response rate was 8.8% (n=180/2044) of all BSG physician members but 28.8% (n=180/624) of those who actually opened the email and saw the survey invitation. A breakdown of the respondents' demographics

is detailed in table 1. Women proportionately made up more of the trainee (53.1%) and newly appointed consultant (66.7%) groups, whereas men made up more of the established consultant (68.2%) and near retirement consultant groups (80.5%) (p=0.001). Men were as likely as women to work less than full time (13.3% vs 24.6% (p=0.07)).

### Personal or household risk of COVID-19

30.7% (n=55/179) of the respondents had personally developed COVID-19 within the past year. 46.4% of the Black or Minority Ethnic respondents developed COVID-19 vs 25.0% of the White Caucasian respondents (n=160; p=0.023). More people who reported an increase in their working pattern out-of-hours due to the pandemic contracted COVID-19 (43.7%), compared with those who did not increase their hours (20.9%) (n=162; p=0.002). The highest rates of COVID-19 were among respondents from London, Kent, Sussex and Surrey (53.1%), Thames Valley and East of England (54.5%). Of those who had developed COVID-19, 38.2% (n=21/55) had felt pressured to return to work before they were ready. It took more than a month for over a third to feel back to their pre-COVID levels of physical (35.2%; n=19/54) or mental (38.5%; n=20/52) health.

Ten per cent of the respondents had to shield, mainly due to personal risk of COVID-19 (8%; n=15/179) or due to a household member being at risk (2%; n=3/179). The vast majority (94.4%; n=17/18) of those shielding felt that their workplace had accommodated their needs. 9.6% (n=17/178) had specifically taken time off work during the pandemic due to caring or home-schooling responsibilities and most (88.2%; n=15/17) had felt that their workplace had been accommodating. There were no gender differences noted in these groups.

### Impact of COVID-19 on working patterns

Just under half (45.5%; n=35/77) reported regularly working more hours a week beyond their contracted pay with 26.0% (n=22/77) reporting working more than 3 extra unpaid hours per week. A third (32.9%; n=27/82) reported regularly working more programmed activities (PAs) beyond their contracted pay per week with 18.3% (n=15/82) working the equivalent of 1 or more extra unpaid PAs per week.

43.8% (n=71/162) of the respondents had seen a regular increase in their working pattern out-of-hours due to the pandemic. This was significantly associated with: (1) newly appointed consultants compared with more experienced consultants (71.4% vs 40.1% (p=0.026)), (2) being aged less than 55 years rather than over (50.0% vs 29.2% (p=0.015)), (3) working full time compared with less than full time (51.3% vs 14.3% (p = <0.001)), (4) Black or Minority Ethnic compared with White Caucasian background (64.0% vs 37.3% (p=0.013)), (5) those who personally

**Table 1** Survey respondent personal demographics

| Survey respondent demographics   | n     | %    |
|--|-------|------|
| Geographical location:   | N=180 |      |
| Scotland   | 21    | 11.7 |
| Wales  | 2     | 1.11 |
| N.Ireland  | 5     | 2.78 |
| England—Northern regions, Yorkshire and Humber                                     | 40    | 22.2 |
| England—Midlands   | 31    | 17.2 |
| England—Thames Valley and East of England  | 22    | 12.2 |
| England—London and Kent, Sussex and Surrey   | 32    | 17.8 |
| England—South West and Wessex  | 27    | 15   |
| Gender:  | N=180 |      |
| Male   | 113   | 62.8 |
| Female   | 65    | 36.1 |
| Non-binary/prefer not to say   | 2     | 1.11 |
| Ethnicity:   | N=180 |      |
| White British/Irish/other  | 136   | 75.6 |
| South Asian or South Asian British (Bangladeshi, Pakistani or Indian)              | 20    | 11.1 |
| Chinese or Chinese British   | 1     | 0.56 |
| African Caribbean or African Caribbean British                                     | 1     | 0.56 |
| Arab or Arab British   | 2     | 1.11 |
| Mixed or multiple ethnic group   | 4     | 2.22 |
| Any other ethnic group   | 16    | 8.89 |
| Identifies as having a visible or invisible disability (N=180)                     | 9     | 5    |
| Age:   | N=180 |      |
| 25–34 years  | 18    | 10   |
| 35–44 years  | 53    | 29.4 |
| 45–54 years  | 59    | 32.8 |
| 55–64 years  | 44    | 24.4 |
| 65+ years  | 6     | 3.33 |
| Job role within gastroenterology and hepatology:                                   | N=179 |      |
| New consultant (<5 years in post)  | 15    | 8.38 |
| Consultant established in post (>5 years in post)                                  | 88    | 49.2 |
| Consultant within 5 years of retirement  | 42    | 23.5 |
| Associate Specialist   | 1     | 0.56 |
| Trainee  | 33    | 18.4 |
| No of programmed activities in consultant job plans:                               | N=144 |      |
| Less than 10   | 24    | 16.7 |
| 10–12  | 96    | 66.7 |
| More than 12   | 24    | 16.7 |
| Non-consultant (trainees/associate specialists) working less than full time (N=46) | 8     | 17.4 |
| Subspecialty interests (up to two could be selected):                              | N=180 |      |
| Advanced endoscopy   | 69    | 38.3 |
| Inflammatory bowel disease   | 92    | 51.1 |
| Hepatology   | 41    | 22.8 |
| Nutrition  | 38    | 21.1 |
| Pancreaticobiliary   | 18    | 10   |
| Neurogastroenterology  | 11    | 6.11 |
| Upper gastrointestinal   | 22    | 12.2 |
| Not applicable   | 12    | 6.67 |
| Work pattern includes general medicine on-call (N=180)                             | 63    | 35   |

contracted COVID-19 compared with those who had not (62.0% vs 35.7% ( $p=0.002$ )) and (6) those who were more likely to consider early retirement rather

than those who did not (51.8% vs 35.9% ( $p=0.042$ )). Ethnicity and age did not remain independently associated factors on multivariable binary logistic regression,

**Table 2** Factors associated with regular increase in out-of-hours working on multivariable logistic regression (N=125 included in analysis)

| Group demographics   | %     | N       | OR           | 95% CI        | P value      |
|--|-------|---------|--------------|---------------|--------------|
| Gender   |       |         |              |               |              |
| Male   | 68.00 | (n=85)  | 1            |               |              |
| Female   | 32.00 | (n=40)  | 1.68         | 0.60 to 4.75  | 0.327        |
| Ethnicity  |       |         |              |               |              |
| White Caucasian  | 84.00 | (n=105) | 1            |               |              |
| Black and Minority Ethnicity   | 16.00 | (n=20)  | 3.2          | 0.95 to 10.86 | 0.062        |
| Consultant level   |       |         |              |               |              |
| Established in post (>5 years)   | 62.40 | (n=78)  | 1            |               |              |
| New (<5 years in post)   | 9.60  | (n=12)  | <b>5.83</b>  | 1.15 to 29.5  | <b>0.033</b> |
| Within 5 years of retirement   | 28.00 | (n=35)  | 1.24         | 0.31 to 5.03  | 0.763        |
| Working pattern  |       |         |              |               |              |
| Less than full time (<10 PAs/week)   | 17.60 | (n=22)  | 1            |               |              |
| Full time (10 or more PAs/week)  | 82.40 | (n=103) | <b>11.56</b> | 2.26 to 59.3  | <b>0.003</b> |
| Age  |       |         |              |               |              |
| 55 years old or more   | 32.00 | (n=40)  | 1            |               |              |
| Less than 55 years old   | 68.00 | (n=85)  | 1.19         | 0.32 to 4.46  | 0.797        |
| Personally developed COVID-19  |       |         |              |               |              |
| No   | 72.00 | (n=90)  | 1            |               |              |
| Yes  | 28.00 | (n=35)  | <b>4.09</b>  | 1.49 to 11.2  | <b>0.006</b> |
| Have retired early or are considering early retirement due to the pandemic |       |         |              |               |              |
| No   | 44.00 | (n=55)  | 1            |               |              |
| Yes  | 56.00 | (n=70)  | <b>4.04</b>  | 1.55 to 10.56 | <b>0.004</b> |

P-value < 0.05 signifies statistical significance. Variables reaching statistical significance are highlighted in bold. CI, Confidence Interval; N, Number; OR, Odds Ratio; PAs, programmed activities.

but all other variables did (table 2). Gender, geographical location and general medicine commitments were not significantly associated with increased out-of-hours working.

Free-text comments on perceived reasons for changes in out-of-hours working due to the pandemic were collated. The main themes expressed by the trainees (n=11) and consultants (n=86) who responded were an increased workload burden due to escalated general medicine on-call rotas and staff shortages due to colleagues isolating or shielding. Additional themes expressed by the consultants included needing to cover for colleagues taking early retirement, and adopting leadership roles, extra administrative tasks related to remote working patterns and extra clinical sessions to deal with service backlog. Some consultants expressed a reduction in working hours due to early or phased retirement, personal burn-out or stepping down from leadership roles.

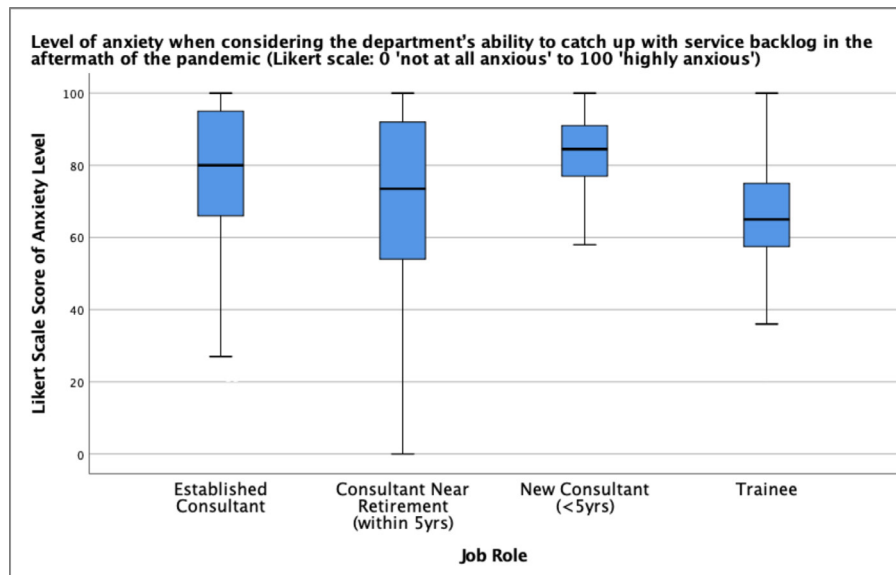
In the pre-pandemic period, 17.9% (n=29/162) of the respondents already had access to flexible working patterns but an additional 32.7% (n=53/162) believed that the pandemic had created further flexible working opportunities and 34.0% (n=55/162) now planned to work more flexible hours. The pandemic had led to more than half of the consultants (54.3%; n=75/138) either retiring early or considering early retirement, and after adjusting for age, this was independently

associated on multivariable logistic regression analysis (n=151) with male gender (OR 2.5 (95% CI 1.1 to 65.4); p=0.023), feeling isolated from the department due to more remote working (OR 2.3 (95% CI 1.1 to 4.5); p=0.023), and increased anxiety when considering the department's ability to provide adequate services to catch up with the backlog (OR 1.02 (95% CI 1.01 to 1.04); p=0.003).

#### Impact of remote working and service backlog pressures on well-being

49.1% (n=80/163) of respondents admitted feeling more isolated from their department since the increase in remote working. 65.9% (n=108/164) felt that reduced face to face patient contact made their job less fulfilling, while only 4.3% (n=7/164) felt the opposite. 91.5% (n=150/164) did not think that there is an adequate workforce to catch up with the backlog of services exacerbated by the pandemic. When considering their department's ability to provide adequate services, the median level of anxiety on a Likert scale (where 0 is 'not anxious at all' and 100 is 'highly anxious'), was 77 (IQR 60–90). New consultants had the highest median level of anxiety at 84.5 (IQR 76.3–92.0) shown in figure 1.

73.9% (n=105/142) of respondents had accessed or been made aware of resources to support their well-being, from their Trust or a national society.



**Figure 1** Box plot showing level of anxiety over the department's ability to catch-up with service backlog, categorised by job role.

Scepticism in their long-term efficacy without immediate improvements in workforce shortages and workload burden were expressed. Extracted themes from free-text comments on how burn-out concerns could be addressed by the BSG are summarised in [box 1](#).

## DISCUSSION

UK gastroenterology and hepatology are not meeting the required 7%–9% annual consultant expansion target to address current service demands and shortfalls in capacity.<sup>4</sup> Over half of advertised consultant positions are unfilled in the UK.<sup>4</sup> Significant workforce redeployment to medicine and reductions in elective outpatient service provision at the height of the pandemic<sup>2,3</sup> and continuing staff shortages have amplified waiting list backlogs. In addition, our survey highlights that a significant proportion of the BSG physician workforce were diverted away from service provision due to personal COVID-19 (31%), shielding (10%) or home-schooling and caring duties during lockdown periods (10%). 92% of those surveyed think the current workforce is inadequate to manage the service backlog with newly appointed consultants expressing the highest degree of anxiety over this. When physicians are constantly unable to meet the needs of their patients and the service a feeling of moral injury sets in with a high risk of burn-out.<sup>7</sup>

Most respondents reported an increase in their working hours in excess of their contracted pay. However, there was a disproportionate increase among consultants who were newly appointed, worked full time and contracted COVID-19 and therefore we suspect had greater exposure in patient-facing roles. Those who developed COVID-19 were more likely to be from a Black or Ethnic Minority background. Over-representation of this group of physicians in the COVID-19 mortality figures has

been well documented.<sup>8</sup> Newly appointed consultants admit perceived deficiencies in leadership and organisational skills which expose them to greater job stress.<sup>9</sup> A greater proportion of new consultants in this survey were also women which reveals how the demographics of the workforce are changing. How we approach these inequalities within our profession requires a sensitive approach, especially since women, full time and ethnic minority consultants were more likely to report feeling undermined at work in the 2020 RCP Census.<sup>10</sup> Access to mentoring and peer-support schemes should be encouraged as these interventions have been shown to increase a sense of collegiality, job satisfaction and reduce stress and burn-out.<sup>9,11–13</sup> Protected hours (PAs) dedicated to professional development (eg, education, leadership or research) also improve job satisfaction and reduce risk of burn-out.<sup>1,14</sup> These are often the first to be sacrificed when clinical workload increases. The Academy of Royal Medical Colleges (AoRMC) mandate a minimum of 1.5 supporting professional activities within job plans for the purposes of revalidation.<sup>15</sup>

This survey highlights aspirations for greater access to flexible working and training in the aftermath of the pandemic, echoing RCP survey data.<sup>16</sup> Doctors desire more control over their job plans to better suit their lifestyle.<sup>1,13</sup> The RCP<sup>17,18</sup> and BSG<sup>19</sup> advocate for flexible working/training as a solution to improve workforce retention and well-being. Flexible working can include full-time hours but scheduled in a way that digresses from the traditional model of working Monday–Friday, 9:00–17:00 hours.<sup>17</sup> Flexible portfolio training pathways (where 20% time equivalent is dedicated to professional development) are being offered to attract trainees to geographical locations struggling to recruit consultants.<sup>18</sup> Flexible working patterns should be offered to physicians approaching

**Box 1 Thematic analysis of the free text comments given by the survey respondents suggesting how well-being and burn-out concerns could be addressed by the British Society of Gastroenterology**

**Trainees (n=11 responses)**

- ⇒ Advocate for a national increase in specialty training numbers in gastroenterology and hepatology to reduce general medicine and service-orientated workload.
- ⇒ Advocate for departments to honour timely annual and study leave applications.
- ⇒ Additional virtual educational and endoscopy immersion training programmes due to deleterious effect of COVID-19 on training (recognising that new consultants will have less endoscopy experience than is usual and providing additional training whilst in post).
- ⇒ Workshops on resilience and burn-out prevention training.
- ⇒ Mentorship programme.
- ⇒ More flexible training opportunities.

**Consultants (n=65 responses)**

**Increasing the workforce:**

- ⇒ Collecting data to justify the need for workforce planning changes.
- ⇒ Advocate for increased medical school places and national training numbers in gastroenterology and hepatology.
- ⇒ Advocate for increased nurse endoscopist and physician associate recruitment.
- ⇒ Lobbying the government to be more accountable for appropriate workforce planning.
- ⇒ Supporting district general hospitals and geographical regions struggling to recruit consultants.

**Sustaining the workforce:**

- ⇒ Advocating for more flexible working opportunities due to positive effect on well-being.
- ⇒ More specific guidance (especially to Trust management) on phased transitioning into or out of retirement.
- ⇒ Supporting access to on-demand online well-being resources and psychological support which is independent of own Trust.
- ⇒ Mentorship and near-peer support schemes.

**Managing clinical services demands and capacity issues:**

- ⇒ Advocating for reduced general medicine commitments to meet demand in specialty services.
- ⇒ Further national guidance, for example, how to reduce unnecessary endoscopy procedures, modifying surveillance intervals.
- ⇒ Being realistic about expectations regarding service efficiency and quality improvement and more in line with current capacity.
- ⇒ Guidance to Trusts on the clinically acceptable maximum number of points on an endoscopy list or patients on a clinic list or minimum duration of clinic consultations; emphasise the negative impact of overbooking lists on patient safety, experience and clinician well-being.

retirement to retain their expertise and skills within the workforce for longer.<sup>20</sup> Over half of those surveyed had retired early or were considering retiring early with contributing factors being anxiety over service pressures and isolation. Joint guidance from the BSG and AoRMC recommends that discussions regarding flexible job planning should start at the age of 55 years.<sup>21</sup> Encouraging those later in their careers to mentor newer consultant colleagues could benefit both parties by increasing engagement with their department and allowing for appropriate succession planning. Recognising that general medicine and on-calls provide the least job satisfaction compared with specialty work,<sup>110</sup> the guidance advocates for physicians to opt-in rather than opt-out of these commitments at the age of 60 years. Gastroenterology is one of the highest contributing specialties to general medicine.<sup>10</sup> The Getting it Right First Time report<sup>22</sup> recommends that Trusts review contractual arrangements with gastroenterology and hepatology staff to reduce general medical commitments and divert their attentions to addressing the service backlog.

Increased remote working from home has been a direct response to the pandemic. RCP survey data suggest this flexibility improves work-life balance, but two-thirds of respondents also spent more time out-of-hours on patient-related administrative tasks.<sup>16</sup> Questions remain about the long-term effects of blurred boundaries between home and work life. Importantly, half of the respondents we surveyed felt isolated from their department due to remote working. Taking regular coffee or lunch breaks with colleagues to share problems and receive advice should not be underestimated as an important intervention to prevent burn-out.<sup>13</sup>

A quarter of the survey respondents were not aware of staff well-being resources available to them which has not improved much since the previous BSG surveys in 2020.<sup>23</sup> There are several online resources available to medical professionals and BSG members.<sup>23-25</sup> Those surveyed want the BSG to focus efforts on advocating for increased national training numbers (NTNs), nursing and allied health professional recruitment. A doubling of ST4 NTNs recruited each year has been called for in the latest BSG Workforce Report 2021.<sup>4</sup> The RCP has lobbied the government to double medical school places over the next decade<sup>26</sup> and introduce an amendment to the Health and Care Bill to ensure greater transparency and accountability in long-term workforce planning.<sup>27</sup> Waning interest among junior doctors in applying for gastroenterology and hepatology specialty training may be addressed by schemes that encourage more flexible training and clinical exposure.<sup>28</sup>

Limitations of this survey include the low response rate and potential for confounders and selection bias within the respondent group and lack of non-responder demographic data for comparison.

We attribute the low response rate due to survey responder fatigue as the BSG and RCP have distributed multiple COVID-related surveys throughout the pandemic.<sup>1-3 10 16</sup> Current workforce data indicate that 22% of UK gastroenterology and hepatology consultants are women, 20% are aged 55 years and over, and 37% belong to a minority ethnicity; 40% of trainees are women.<sup>4</sup> Therefore, there was over-representation of respondents aged 55 years and over (34.5%) and women (trainees: 53.1%; consultants: 31.9%) in our survey, but we did adjust for these confounding factors in the multivariable analyses. The survey was advertised as a BSG SWiG initiative which may have incentivised more women to complete it. There was under-representation of Black and Minority and Ethnic consultant respondents (16.1%) and a relatively small number of new consultant respondents. It is essential that future work targets these high-risk groups to better understand their workload pressures, risk of burn-out and impact on workforce retention. Overall, however, we believe this study of a cross-sectional sample of gastroenterologists and hepatologists, with representation of geographical regions consistent with the current workforce,<sup>4</sup> highlight important lessons which need to be acknowledged in future workforce planning, including increased aspirations for early retirement and flexible working. The implementation of mentoring and peer-support schemes, strategies to increase workforce numbers, and effective job planning which supports flexible working, phased retirement, better succession planning, protected time for professional development activities and reduced general medicine work are likely to reduce burn-out among gastroenterologists and hepatologists and its impact on workforce attrition.

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**Acknowledgements** We would like to thank other collaborators from the SWiG committee who offered feedback on the survey content (Dr Rebecca Harris, Dr Elaine Henry and Dr Johanne

Brooks-Warburton). Jackie Campbell who was the BSG Head of Committee Services at the time for helping with the survey distribution. Jane Munday from Lateral Knowledge who transferred the survey to an online platform.

**Contributors** MK is the guarantor of this article and accepts full responsibility for the work and the conduct of the study, had access to the data and controlled the decision to publish. MK and SS designed the survey and analysed the data. All the authors contributed to the conception and design of the study, acquisition and interpretation of the data, revising the article critically for important intellectual content and approving the final version of the article to be published. All authors agree to be accountable for all aspects of the work.

**Funding** The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

**Competing interests** None declared.

**Patient consent for publication** Not applicable.

**Ethics approval** Ethical approval to complete this survey was not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** Data are available on reasonable request.

**Supplemental material** This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

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