Shielding during medical training: an exploration of effects, consequences and best practices

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\section*{Background}
Shielding during the COVID-19 pandemic impacted postgraduate medical training, likely affecting between 7\% and 14\% of trainees. We examine the burden of shielding on this cohort and provide strategies for future working practices.

\section*{Methods}
Seventeen postgraduate doctors in training took part in non-incentivised, virtual focus groups or interviews. Focus group content underwent thematic analysis. Results were validated in subsequent focused interviews.

\section*{Results}
Shielding trainees reported guilt, limited support and occasionally stigmatisation. Rotational changes and returning to work were also difficult and led to contractual challenges. Departmental support, IT provision and proactivity were key to successful shielding. Early discussion with training bodies was deemed essential to plan objective onward progression.

\section*{Conclusion}
As we enter an era of endemic COVID-19, adjusted working practices will continue. Embedding successful working practices for shielding at national and local levels will minimise the long-term impact on postgraduate medical training.

\section*{Keywords:}
shielding, postgraduate training, pandemic

\section*{Introduction}
Postgraduate medical training is a dynamic balance of learning, workforce planning and service provision. It is curated by time and also exposure to different clinical environments. As such, unexpected interruptions to this training time are likely to impact on the development of consultant-level skills and experience. March 2020 saw a rapid shift in working patterns with many trainees moved unexpectedly between placements and clinical roles. At the same time, 2.2 million of the UK population were identified by health records to be clinically extremely vulnerable (CEV) and advised to isolate away or ‘shield’ from others.\textsuperscript{1} This included a substantial number of postgraduate medical trainees.\textsuperscript{2} In the early stages of the pandemic, Health Education England (HEE) reported 1,343 (2.7\%) of approximately 50,000 postgraduate medical trainees in England to have shielded.\textsuperscript{3,4} Specialty-based studies have reported higher figures (7\% in paediatrics through to 14\% in renal trainees), suggesting that the number reported by HEE is likely to be an underestimate.\textsuperscript{5,6} A more systemic collection of data does not exist beyond professional specialty silos.

Only a small number of studies have examined in detail the impact of shielding on the postgraduate medical workforce. In a survey by Swann \textit{et al}, the emotional impact of shielding was evident on trainees: 89\% reported guilt at not being able to support the health service.\textsuperscript{7} Feelings of guilt and isolation were also reported by Beckwith \textit{et al} with shielding trainees, described on one occasion as a ‘forgotten tribe’.\textsuperscript{5} This is echoed by educational articles from early in the pandemic.\textsuperscript{8} Further papers and reports have proposed strategies to enable effective shielding, with a clear focus on provision of technology to facilitate virtual working. It has also been noted that shielding can provide professional opportunities not often achievable routinely in the workplace.\textsuperscript{9,10}

To our knowledge, no studies explore the viewpoint and best practice of shielded trainees beyond surveys. As we enter an era of endemic COVID-19, where the disease remains a substantial health burden, it is likely that adjusted working is here to stay. It is, therefore, important to better understand the impact on training and the delivery of medical care. This will be essential to mitigate the effect of shielding on training and clinical work, minimising the long-term impact of COVID-19 on the medical workforce.

\section*{Objectives}
This study aims to examine the burden of shielding on the postgraduate medical workforce and provide strategies to support future working practices at national and local levels.

\section*{Methods}
Postgraduate doctors in training with experience of shielding from three different training regions in England were invited via HEE to partake in non-incentivised focus groups. Twenty-three doctors expressed interest at being involved and 17 took part in focus groups or follow-up interviews. Foundation trainees and non-patient-facing specialties (ie public health) were excluded.
Thirteen participants took part in one of five focus groups held between November 2021 and January 2022. Focus groups included two or three participants (in addition to the facilitator) with a range of specialties attending each group. A further four participants were involved in focused interviews. All focus groups and interviews were conducted virtually using MS Teams except one interview done via telephone. Consent was obtained verbally at the start of each focus group or interview for research on behalf of HEE and any onward publication. Furthermore, all participants have had the opportunity to review this report at completion.

The demographics of participants are shown in Table 1. We defined craft specialties as those in which ‘a substantial component of consultant work includes practical procedures requiring a high degree of fine motor skill’. This principally includes surgical specialties and emergency medicine. Initial focus groups covered core areas impacting the trainee workforce identified by Beckwith et al: emotional impact, teamwork, perception of leadership/management and change in work/education patterns. The content of the focus groups was then reviewed to identify core themes. Focused interviews completed at the end of the focus groups (primarily to ensure contact with trainees unable to join a focus group) were used to validate key themes elicited.

This report is considered research by the Health Research Authority (HRA), however, ethical approval was not sought in accordance with the HRA Medical Decision Tool.

Table 1. Baseline demographics of participants

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>4 (24%)</td>
</tr>
<tr>
<td>Women</td>
<td>13 (76%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialty type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Craft</td>
<td>8 (47%)</td>
</tr>
<tr>
<td>Non-craft</td>
<td>9 (53%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary reason for shielding</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Underlying medical condition</td>
<td>10 (59%)</td>
</tr>
<tr>
<td>Maternity</td>
<td>5 (29%)</td>
</tr>
<tr>
<td>Vulnerable family member</td>
<td>2 (12%)</td>
</tr>
</tbody>
</table>

Exhaustive details are not included to protect anonymity.

Results

Impacts of shielding

Personal impacts

For most trainees, there was a clear sense of ‘guilt’ from having to shield. Groups identified that their time shielding had left rota gaps and worried that their colleagues would have to ‘step up’ in their absence. Many shielding trainees worked harder to compensate for this, and the experience led to reduced morale. Some trainees described that it felt like they ‘could have disappeared’ and one trainee identified that, in their experience, it would have been ‘easy to have done nothing, I could have sat there on full pay and nobody could have fired me.’

Shielding was an isolating experience for many trainees with only one trainee reporting regular interaction with management in addition to the medical team. While many trainees were proactive and sought opportunities, others were not offered any work to do or when it was done, it was often without feedback. This was reported as worst in the first few months of the pandemic.

Impact on health

All groups reported the national guidance to shield as challenging with little to no translation to trust/local levels. Varying advice, in many cases, led to an ‘on/off’ approach to shielding. This often undermined the need to shield with some trainees asking, ‘how strictly do we need to shield?’ This led to risk assessments that were considered to be duplicative and tedious. Two trainees described them as a negotiation with overall responsibility pushed onto the trainee for the final outcome. Several trainees identified concerns that there was an expectation to be transparent about why they were shielding. They worried that not all trainees would wish to be open with colleagues about their personal indication to shield.

The title of CEV was felt to be a ‘stigma’ by one trainee. Additionally, two focus groups noted that clinical reasons to shield could either be ‘respected or disrespected’ by colleagues.

Returning to work

Typically, returning to work was problematic because of the time away while shielding or the effect of workplace adjustments. Even for participants shielding primarily for pregnancy or maternity reasons, it led to a longer period away from patient-facing roles than expected.

In those for whom shielding was indicated for an underlying medical condition, some trainees reported going back to work as ‘no longer a healthy person’ led to a two-fold anxiety. Firstly, returning to a clinical environment can be challenging and provision for Supported Return to Training varied between specialty and deanery. Secondly, some worried about their own personal risk from COVID-19. Trainees reported the lack of compliance with infection control measures in the workplace and low vaccine uptake rate in certain trusts amplified concerns. This undermined the effort they had undertaken, often at significant personal disadvantage, to shield effectively. In addition, as one trainee noted, commuting by public transport could negate a carefully planned return to work.

At the time of the focus groups, little or no provision had been sourced for achieving additional necessary procedure numbers for those working in craft specialties.

Rotations

Moving trust while shielding added to the sense of isolation (severing limited colleague contact) and created difficulties with human resources (see later). Trainees who continued in the same specialty and site during their training felt the most secure.

In all focus groups, some trainees reported that rotations were offered without consultation from training programme directors, which complicated a return to work; for example, tertiary level neonatal intensive care units, traditionally very clean sites in a hospital, were thought to be low-risk environments for vulnerable trainees. However, they can be high-pressure environments, poorly suited to a return to clinical work after a prolonged time away.
Employment
Several trainees worried that having to shield may impact long-term career aspirations and employment prospects at completion of clinical training. Some reported worrying conversations with supervisors and training programme directors regarding suitability to continue clinical roles in the long term. One trainee, completing core training in spring 2020, without onward specialist training, had significant concerns around employment after the end of their contract.

Contractual difficulties also occurred. Two trainees felt pressured by their trusts to use annual leave in place of shielding time. Several trainees also reported pay discrepancies moving trusts.

In all but one case, out-of-hours or banding supplements were maintained.

Key approaches to successful shielding

Technology
All trainees felt effective IT was critical to successful shielding. It allowed trainees to stay clinically connected through remote clinics and teaching and also to access clinical notes to complete projects and audits. Obtaining remote access was challenging. Most trainees felt that this required a degree of proactivity in sourcing appropriate software and/or hardware but efforts had to be reciprocated by trusts. Trust computing support was not universal and reported as difficult in some trusts as trainees are temporary members of staff.

While difficult in the early days of the pandemic, overall access to technology has improved for all those working off site and has now facilitated easier access to IT necessary for the non-resident on call. Some reported that their (remote) access was better than arrangements physically within trusts.

Support
The role of the educational supervisor was noted in all focus groups. Educational supervisors in most cases were well recognised by trainees to have given excellent, personalised and sensitive support. Some trainees felt that shielding enhanced working relationships by breaking down hierarchical barriers. In particularly successful cases, trainees were paired with consultants who were also shielding. This was, however, not uniformly reported and some trainees reported minimal support especially if new to the trust.

Social media was repeatedly raised as a source of ‘massive support’. Twitter and Facebook offered groups and a wealth of information on a national level. On a local level, grouping of shielding colleagues on WhatsApp provided an opportunity to share local resources and achieve multidisciplinary working. One department used ‘virtual lunches’ successfully to bring together shielding colleagues.

Progression
Trainees commended the COVID-19-related annual review of competencies for progression (ARCP) training outcomes and welcomed the introduction of the ‘out-of-programme pause’. However, trainees routinely felt that outcomes were inconsistently applied. One trainee emphasised that ARCP should be ‘case-specific, person specific and department specific’.

Some reported feeling pressured into ‘progression as normal’ despite a significant reduction in clinical exposure and others felt ‘held back’ despite many personal attempts to mitigate against this. Few trainees reported clear understanding of any eligibility for additional training time.

All focus groups wished for greater trainee involvement at panels deciding progression.

The focused interviews also illustrated the importance of all training levels needing support, not just those making key transitions between core training, higher training or consultant level. Two trainees, not making a transition during their time shielding, did not feel prioritised. Now, 2 years later, they are making such transitions and feel that they are missing core clinical experience to do so.

Working plan
While often seen as mundane activities in a clinical setting, several trainees reported the importance of staying involved with routine tasks. Writing discharge summaries, following up results and regular contact with clinically-based staff was deemed fulfilling.

An expectation to routinely (but virtually) join key daily events (such as handovers, teaching and departmental meetings) was widely well-received.

Many impressive and effective local initiatives were undertaken while shielding. One emergency department trainee reported setting up a COVID-19 follow-up clinic and others reported opportunities to independently run clinics. Many shielding trainees took ownership of educational programmes and the opportunity to update/complete local audits and guidelines. Additionally, many trainees used their time shielding to complete educational courses and modules.

Discussion
This study offers an insight into the ‘shielded’ trainee workforce, many of whom have previously taken time out of training due to vulnerable personal circumstances. We report from a diverse group of postgraduate medical trainees and illustrate many realities of shielding. Interestingly, compared with previous reports published, most have now returned to clinical training, creating a reflective element to their experience.

While obstacles were anticipated (IT provision, emotional challenges and unclear national guidance), the study underlines the importance of a trainee-centred approach. Early discussions with training bodies will best plan suitable training and enable curriculum outcomes to be evidenced for ARCP. Deaneries must take particular note of minimising disruption to training by avoiding placement changes while shielding. Particular support is necessary for those in procedure driven or craft specialties. Few, if any, of our participants reported comprehensive provision to catch up with missed competencies.

Successful strategies to shielding were also identified in our study. Educational supervisors were particularly important and supportive. Additionally, trainee-led initiatives (such as virtual COVID-19 follow-up clinics) were very well received, and many trainees took up educational opportunities while shielding. Most surprisingly, routine involvement with day-to-day (often mundane) tasks gave those who were shielding a sense of worth and presence within the clinical team.

All successful strategies relied on provision of IT. IT provided the capacity to complete audits and attend virtual clinics, but it also allowed shielding trainees to remain involved with routine clinical activities. Obtaining this was almost universally complex, requiring
perseverance and proactivity on behalf of the trainee and needing reciprocity from trusts. The challenges of obtaining remote IT access were often thought to be exacerbated by the transitory nature of trainees at NHS trusts. Together with the pay and employment difficulties evidenced by this report, this demonstrates the vulnerability of trainees as short-term employees.

While this report has highlighted challenges and successful strategies, it must also acknowledge the wealth of resources that were rapidly made to support shielding or displaced trainees. In many instances, they highlight the key areas recognised by this report. Returning to work was one such area and was recognised early to be a particular challenge. However, many trainees were signposted incorrectly, and advice lacks recency given that we have now seen most shielded trainees return to the workplace. In many cases, these resources are based on the perception and experience of individuals rather than a wider body of trainees.

This report is from a heterogeneous mix of postgraduate trainees but is not comprehensive: our overall number of participants is small and self-selecting. Participants were predominantly women, and it remains unclear why this was the case. A notable cohort missing from our study are trainee general practitioners who we were unable to recruit. Thematic analysis, while a practical approach to qualitative analysis, is not as thorough as other qualitative methodologies but provided a realistic approach to analyse focus group content. Groups and meetings were non-incentivised and, as such, it is unrealistic to demand further time from participants.

Conclusion
Shielding for trainees was set up in an attempt to protect them and their families while allowing career progression. As one trainee said, ‘there were significant imperfections but the end is the right result: we were kept safe with our jobs’. Despite this being an unplanned and rapid change in an educational model, many progressed and transitioned successfully. However, in almost all cases, the depth and range of experience and skill acquisition was impacted. We now have a clearer understanding of how displacing trainees from the clinical environment affects them as individuals and how this influences career progression. Thoughtful analysis of past experiences should assist in making the best of future challenges.

Summary

What is known?
Postgraduate medical training balances training, workforce planning and service provision. However, a substantial but undefined number of the postgraduate medical trainee workforce were identified to be clinically extremely vulnerable during the COVID-19 pandemic and required to ‘shield’ away from the clinical environment.

What is the question?
We examined the burden of shielding on the postgraduate medical workforce and learnt strategies at national and local levels to support future working practices.

What was found?
Shielding trainees reported guilt, limited support and, occasionally, stigmatisation. Rotational changes and returning to work were also difficult and led to contractual challenges. Departmental support, IT provision and proactivity were key to successful shielding. Early discussion with training bodies was deemed essential to plan objective onward progression.

What are the implications for practice now?
As we enter an era of endemic COVID-19, adjusted working practices will continue. Embedding successful working practices for shielding at national and local levels will minimise the long-term impact on postgraduate medical training.

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