

A qualitative evaluation of a 'covid responder' scheme for medical students

Ciaran Grafton-Clarke (✉ ciarang-c@hotmail.com)

School of Medicine, University of Leicester, Leicester, UK

Hussein Uraiby

University Hospitals of Leicester NHS Trust, Department of Clinical Education, UK

Shalin Abraham

University Hospitals of Leicester NHS Trust, Department of Clinical Education, UK

Ayushi Ramjee

School of Medicine, University of Leicester, Leicester, UK

Jennifer Kent

School of Medicine, University of Leicester, Leicester, UK

Rosie Parnham

School of Medicine, University of Leicester, Leicester, UK

Joanne Kirtley

University Hospitals of Leicester NHS Trust, Department of Clinical Education, UK

Mark McCarthy

University Hospitals of Leicester NHS Trust, Department of Clinical Education, UK

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Abstract

Background

The first UK wave of COVID-19 led to the temporary suspension of medical school placements. Medical students were offered paid employment through a COVID Responder Scheme (CRS). We aimed to qualitatively assess the experience of those who participated in this scheme in comparison to traditional clinical attachments.

Summary of work

A bespoke questionnaire was designed to explore key themes identified through theme selection, literature review and consensus. Following piloting and validation, the questionnaire was circulated to students recruited to the CRS. A grounded theory analytic framework was used to analyse data. A modified-Delphi consensus process was used to reach a consensus on 'what makes you feel most valued as a medical student'.

Summary of results

36 students (46.2% response rate) responded. 86.1% of respondents felt their contribution was worthwhile. 65% reported being significantly more integrated into a team than in their university attachments. Concerns prior to starting CRS work included availability of PPE and the ability to contribute effectively, but refreshingly these concerns did not present as challenges. The steep learning curve of experiential learning alongside virtual teaching commitments proved difficult to juggle when facing physical, mental and emotional fatigue from long hours working busy clinical shifts. Respondents cited the educational benefit of the CRS throughout the survey. Recognition and commendation were highly effective in providing a sense of value ahead of remuneration. 44.4% of respondents were concerned about their future training and a reduction in clinical exposure.

Discussion

The majority of respondents reported CRS work as worthwhile, with reasons including increased responsibility for patient care and a sense of contribution to the clinical team. This in turn led to autonomous practice and task accountability, which further integrated them into the team and developed their clinical confidence. A student's sense of value was strongly linked to being identified in emotional responses from colleagues and patients ahead of financial remuneration, suggesting scope for improvement within unpaid attachments / rotations.

Conclusion

There is an opportunity to take value from the COVID-19 medical student experience to improve undergraduate medical education through and beyond the pandemic.

Introduction

The global pandemic resulting from the novel coronavirus (SARS-CoV-2) has had a drastic impact on the delivery of medical education.¹ Medical schools, in response to advice from the UK Government and the Medical Schools Council (MSC),² and in the spirit of non-maleficence, were forced to cancel clinical rotations, face-to-face tuition, and delay a sizeable proportion of summative written and practical examinations.³

Across the UK, the response of medical schools and partnering health services with regards to undergraduate medical training has been drastic and disruptive. The majority limited student attendance to comply with social distancing regulations and rather emergently, had to adopt new modes of practice to ensure a modicum of continuity in training. Many healthcare organisations were faced with the ominous reality that their capacity to deliver safe and effective care to all patients may become compromised without drastic changes to working practices.⁴ It is understandable and duly reasonable that healthcare services, at the brink of extreme strain, drew on the inherent altruism of many medical students to support the 'pandemic effort'.⁵ The crucial voices of the MSC and General Medical Council (GMC) stressed to medical students that progression should not be jeopardised by taking on too many additional responsibilities and called on hosting medical schools to ensure locally arranged work, whether voluntary or remunerated, were appropriately safe and supported.^{6 7}

A selection of medical schools, wary of the potential for exploitation and unrealistic expectations of doctors in training, worked with partnering healthcare providers to develop programmes which allowed medical students to support the local healthcare community. These programmes were designed to offer undergraduate students a unique and fulfilling educational opportunity, whilst supporting their qualified counterparts in the delivery of care at a time of extreme pressure and uncertainty.

This study discusses the experiences and reflections of a cohort of medical students participating in a covid responder scheme (CRS) within a large university teaching hospital. The aims of this study were two-fold. First, we aimed to identify key theoretical constructs underpinning the educational value of the pandemic experience. Second, we aimed to contribute conceptual understanding to the broader dialogue around shaping the 'new normal' in undergraduate medical education through and beyond the covid pandemic.

Methods

Medical students from a single UK medical school were offered the opportunity to participate in a Covid Responder Scheme (CRS) hosted by a large university teaching hospital. Students worked as either a healthcare, clinical, or research assistant.

A 15-item survey was designed using a combination of dichotomous, multiple-choice, Likert response scale, and free text questions (Supplementary Materials). Surveys were distributed to potential participants on the 2nd of June 2020 via an introductory email, with a hyperlink directing the recipient to an online survey, executed by the web-based survey platform, KeySurvey. The survey closed on the 1st July 2020, with reminder emails sent every three days until closure.

The question schedule was developed through a multi-step process. First, broad themes of interest were selected to ensure the constructs made theoretical sense within the scholarly discourse.⁸ A scoping review of the literature informed this dynamic process. The following six themes were chosen by consensus decision-making within our research group as utilitarian: concerns, challenges, contribution to service provision, integration, educational value, and rewards. Next, the items within the survey were developed iteratively and written in accordance with current best practice in survey design, as to ensure representativeness of constructs, clarity, relevance, and distribution.⁸ Finally, pilot testing was conducted to ensure the adequacy of item variance, reliability, and convergent/discriminant validity.

A grounded theory analytic framework was applied to the data collected, but not applied *in toto*.^{8 9} Iterative cycles of comparative analysis for emergent themes were performed using open and axial coding.¹⁴ This process was performed by four authors independently. This allowed for the consensual generation of interpretative theories within the boundaries of the pre-determined constructs. Theoretical sampling to saturation and iterative cycles of collection and analysis to shape data collection and the pursuit of emergent themes was not performed given the dynamic nature of the pandemic and the imminent transfer of medical students back to their learning environment. Subsequent inductive analysis towards the generation of explanatory models to articulate relationships between themes was performed. Following thematic analysis, a modified-Delphi consensus process delivered virtually via SurveyMonkey, was used to identify a nominal ranking of statements corresponding to 'what makes you feel most valued as a medical student'. Iterative cycles of order and re-order were presented to participants until consensus was achieved.

The NHS Research Ethics Committee tool provided by the Medical Research Council determined that ethical approval was not required for this study.¹⁰

Results

36 (46.2% response rate) medical students responded to the survey. Baseline details of respondents are shown in Table 1. The majority of respondents were female (n = 22; 61.1%). There were respondents across all years of study, including intercalating medical students. Participants committed, on average, 29 hours of work per week throughout their postings (range 2 – 37.5 hours). Students were employed in a range of clinical areas, including intensive care medicine (n = 11; 30.6%), acute internal medicine (n = 7; 19.4%), and respiratory medicine (n = 5; 13.9%).

Concerns

Prior to

commencement of employment, respondents reported concerns across eight inter-linked themes (Figure 1). Most commonly, respondents expressed concern about their safety. This encompassed provision and effectiveness of personal protective equipment (PPE) and exposure to a virus that could 'be transmitted to the family'. Participants expressed a range of anxieties relating to their perceived value within their teams. 'Feeling like a spare part/outsider', 'being a hindrance', and 'negative patient response to my work', were examples of this. Participants raised concerns relating to their competence to perform the jobs requested of them, for which nervousness relating to technical skill competence and ability to manage emergencies with confidence were widely cited. Students expressed concern about their ability to manage the pressures associated with their roles, including 'coping with the physical demands', 'long hours', and 'balancing employment with university commitments'. A couple of participants were concerned about their ability to cope with the emotional demands of seeing patients die. A small number of respondents expressed concern relating to medicolegal protection and the availability of appropriate supervision and mentorship.

Contribution to service provision

86.1% (n = 31) of

respondents felt their contribution had been worthwhile. A summary of the activities undertaken is presented in Table 2. Participants described worthwhileness across four areas: positive contribution to the team, reducing both doctor and nursing workloads, improving the patient experience, and contribution to safe staffing levels. Students gained great satisfaction in making a difference to the care of patients: 'I have seen patients laugh and smile when I have interacted with them'; 'I have made the experience less scary for patients'. Respondents frequently cited reducing the workload of nursing and medical staff as extremely valuable in allowing qualified staff to prioritise the care of the most unwell patients. Several students recognised that without their involvement, the clinical team would have struggled to deliver care to the same standard: 'I was allocated a job, and if I did not do it, then it would not have been done – this is called responsibility'. 13.9% (n = 5) did not feel their contribution to service provision was worthwhile. This was primarily due to 'feeling like a spare part, there were plenty of doctors', with one respondent saying: 'I gained more from the experience than the NHS did from my presence'.

Integration

Before employment commencement, participants were concerned about feeling like 'a spare part' or an 'outsider'. However, it appears these concerns did not come to fruition, as evidenced through the reflections of participants with regards to the challenges and benefits of the programme. For instance, nearly 65% of participants felt they were significantly more integrated within their clinical teams, in comparison to their university clinical placements, where students typically consider their role as 'observers', rather than 'active participators' (Figure 2). Many students attributed this transformation to the ownership and responsibility of job lists, being active in their clinical areas, and 'given a sense of purpose'. Students cited the building of strong relationships with their colleagues, both medical and the wider multidisciplinary team, as a significant driver in feeling a sense of belonging and community. One student commented: 'I have been fully integrated into the team, to the extent where I am recognised and

spoken to in the corridor – something I rarely experience as a student'. Respondents described a range of benefits associated with greater levels of integration, such as 'greater opportunities to ask questions and participate in patient management' and 'the opportunity to visualise healthcare from the viewpoint of nursing and healthcare assistants as being particularly educational'. One student found the integration process challenging, stating 'I felt like a nuisance asking for help; however, the more I learnt and communicated, the more I felt part of the team'.

Challenges

Respondents described challenges concerning their university work and their employment. Many respondents found balancing their university work with employment difficult. 'Exhaustion', 'overwhelmed at times', and 'difficulties in motivating oneself to learn and work simultaneously' were cited as common challenges. Students found planning their time difficult and felt participation with online learning was at the expense of recovery post-working.

Many of the challenges participants experienced resulted from significantly greater levels of responsibility and a perceived reduction in levels of supervision, as compared to their usual clinical placements (Figure 2). Students were performing roles independently and competently, with variable levels of supervision. One student stated: 'I run my own antibody testing clinic for full afternoons with no support or supervision'. Several students found the reality of formal employment, whilst a medical student, a challenging paradigm. For instance, one participant reported: 'I was unsure how much less supervision was acceptable for the role, and I was probably over-cautious in ensuring I did not overstep the role of a medical student'. Participants found the learning curve to be steep: 'There is no denying the fact that to independently nurse critically ill patients is a massive increase in responsibility and involved vast amounts of learning, supervision, and commitment to being a team player'. A number reported the challenges associated with caring for the dying, for example: 'How do I cope with so much death?'.

Educational value and rewards

The educational value of the CRS was widely cited throughout the responses received. Respondents hailed the opportunity to experience healthcare from the perspective of other healthcare professionals, such as nursing staff and healthcare assistants, as 'a once in a training programme opportunity' and 'truly insightful'. Numerous students felt the opportunity to perform clinical skills, in an environment where they were responsible for the safety, and successful completion, was invaluable. This allowed them to 'gain competence at a much greater rate' when compared to traditional learning practices. Respondents cited a range of clinical scenarios they had the opportunity to experience which they found unique to the scheme, above and beyond historic medical student placements. Examples of this include 'awareness of personal protective equipment', 'assisting with basic care, such as rolling, cleaning, and feeding', 'contribution to the medical record' and 'delivery of emotive news to relatives'. Students also found the opportunity to deliver end-of-life care to patients a 'truly humbling' experience. One student described the scheme as 'an anchor amongst the confusion and stress following the postponement of clinical placement'.

Reflecting on their training going forwards, 44.4% of respondents were concerned about their future training. Fundamentally, students were concerned about insufficient patient contact when returning to clinical placement and a reduction in hospital-based teaching. One respondent questioned 'will we meet the GMC competencies?', which was reinforced by citing 'a reduction in exposure to key clinical areas and scenarios'. The survey respondents described a sense of pride throughout their contributions. One participant said 'I have found it incredibly rewarding to have been part of such an extraordinary team – the expertise, dedication, and care that I have witnessed, has been second to none. I am proud to have been part of that'.

Delphi-consensus on what makes students feel valued

As part of a

modified Delphi consensus process, six students ranked ten statements pertaining to elements which contribute to the feeling of value as a medical student. Two rounds were required to achieve consensus across the participating students. The consensus rankings are presented in Figure 3. Three of the four highest-ranked items were emotional responses to receiving thanks from their patients and praise from their healthcare professional colleagues, and members of the team referring to them by their name. Next, students ranked items relating to service delivery as value-inducing and include performing tasks which progress the patient journey and supporting their colleagues with their workloads and associated pressures. Ranked lowest were items pertaining to administrative components, such as having a rota and being on the payroll.

Discussion

Why is integration so important to medical students?

The GMC publication on *Clinical Placement for Medical Students* recognises the importance of fully integrating medical students into clinical teams. The desire for students to be integrated into their clinical teams has been a major theme through the survey responses. It is not uncommon for doctors in training to feel internally off-balance, where they question their value, purpose, and future direction. Clinical placements are recognised as an integral component of medical training, and perhaps represents the most significant source of concern and personal challenge for students within their learning experiences. Not only are they attempting to develop their professional identity, which is in constant negotiation with their perceptions and values, but they need to navigate an intricately complex healthcare environment characterised by strong personalities and unfamiliar clinical experiences. Throughout a medical degree, students will be exposed to dozens of different clinical settings, hundreds of healthcare professionals, and thousands of uniquely wonderful patients. Indeed, the relatively short length of time spent in each clinical area has implications for students' sense of integration. An important question to answer is how to transition from 'just another rotating medical student' to external and self-perception as a valued and integral member of the team.

The CRS, for which students were financially remunerated for their time, has given a unique insight into the benefits associated with greater degrees of integration. It is understandable, given the employment

status of the responders, that the provision of roles and responsibilities lends itself towards greater levels of integration. However, the emphatic celebration of the responders and their reflections of the scheme compared to standard clinical placement offers several practical considerations for educators and healthcare providers. The identity of medical students is ubiquitously important to them. Their colleagues calling them by name, rather than 'the medical student' had a profound impact on their assessment of value and personal identity. Communication as elemental as this, instilled a sense of investment and care in their development, providing them with the confidence to be inquisitive, creative, and committed to their sick patients.

An emotional response is what makes students feel valued Building upon the theme of professional identity evolution, students found the emotional reactions as expressed by their patients and work colleagues is what made them feel most valued. Examples such as being thanked for their contributions and being referred to by name had a significant impact on the experience of students. It is interesting that these items feature above the contributions they made towards the provision of service, such as progressing the patient journey or relieving the burden on their pressured colleagues. The provision of rotas and remuneration were considered the lowest order contributors towards a sense of value. The emphasis placed on these emotional responses reflects an innate desire for medical students to be integrated within the clinical team and to form strong working relationships with their colleagues. Therefore, the value of the CRS and the broader exposure to the clinical environment offers opportunities for students to explore their emotional compass, and identify how they seek value in their role as a doctor in training.

Optimising the medical student learning experience with the CRS

The CRS is markedly different from a standard medical student placement. Not only are students leapfrogging into the realm of professional employment, but they also had to navigate the threat to personal safety, the realities of working shift patterns, the emotional burden of providing care to seriously unwell patients, and the expectation of competency within their job roles. Given the right environment for learning, students are capable of achieving highly. Unfortunately, working alongside the covid-19 pandemic has threatened the most basic conditions required for the successful delivery of hospital-based education. Framed within a hierarchy of need, we present an approach to optimising the medical student experience whilst on clinical placement within a pandemic (Fig. 4). For instance, doctors in training need to be looked after, both physically (e.g. provision of adequate PPE) and psychologically (e.g. access to support and debrief). Without these foundations, the educational opportunities afforded by working through a pandemic, which are numerous, becomes muted. The higher-order, and possibly more challenging considerations in the path towards students achieving actualisation, revolve around integration within the clinical team and ensuring opportunities for contribution. Provision of clear job roles and facilitating the integration of students into their clinical teams, through induction and shadowing - a formality historically, is likely to have been condensed or even bypassed in response to the

emergent situation. Without consideration of this hierarchy of optimisation, students are unlikely to reap the rich and diverse educational benefits associated with pandemic working.

Experiential learning taken to the next level

Much of the curriculum guiding undergraduate medical education revolves around preparedness for practice as a foundation year one doctor, with an emphasis on clinical knowledge, clinical assessment competencies, and management of medical emergencies. While it is expected that students gain awareness and understanding of the roles and experiences of other members of the clinical teams, the opportunity to 'fill the boots' of the nursing and healthcare assistant role, as demonstrated within the CRS, is uniquely valuable.

Experiential learning has history as the corner stone of clinical medical education, traditionally based around the structure of 'the firm'. For medical education 'the firm' provided a form of inter-generational cooperation and learning in which medical students were inducted alongside being taught on the ward. Over time the structure of medical education has changed with undergraduate students rotating frequently across different clinical settings, departments and hospitals, allowing them to experience a wide number of specialities but often to the detriment of their own integration. Furthermore, medical students are traditionally heavily supervised with low levels of responsibility. This may have a safety-blanket effect on students, whereby they may forgo fully immersing themselves within the wealth of opportunities available to them. The covid responder role was very different to standard medical student placements. In this employment, students had less supervision and more responsibility, which afforded them a greater level of autonomy over their work. There was much value in students having direct responsibility for patient care, where they needed to learn the logistics and processes surrounding specific tasks, such as requesting investigations, chasing up results, referring patients to other specialities, and how to complete discharge letters. These skills learnt throughout the scheme will be invaluable at the time of transitioning towards working as a foundation year trainee in years to come.

Through the survey and subsequent generation of the hierarchy of needs, (Fig. 4) it has been possible to identify factors that are important in optimising medical student experience whilst on clinical placement, many of which have the potential to be fulfilled through experiential learning. Although there is no suggestion of a movement back to long-term rotations, at the expense of exposure to the now vast number of specialities. There are steps that can be taken to draw these benefits into current day medical education. Supplying students with 'my name is....' badges alongside a formal induction processes design to welcome them into the team (Fig. 3b), is one such initiative that could be applied.

What next for clinical undergraduate education? This study has provided a unique insight into the concerns, expectations, perceptions, and experiences of medical students working within a covid responder scheme. Whilst several findings are notable to clinical learning amidst a global pandemic, a number of insights are translatable to the wider discourse. For instance, this study placed the value subtended by students upon simple actions such as remembering their name and expressing thanks for their contributions. Comparatively, this was considered of greater importance than contributing to the

patient journey and the workload of the clinical team. Within Fig. 3b, we have suggested ways in which providers of education can support their students in feeling most valued within their learning environments, which we have demonstrated to be a major driver for students in their journeys through medical education. Examples include fostering a culture of care, kindness, and compassion; welcoming students to the clinical team in a more expansive manner; and providing medical students with easy-to-read name badges. We also present a hierarchical approach to optimising the medical experience, which has utility within the pandemic and non-pandemic clinical settings (Fig. 4). This approach offers a step-wise method in ensuring the safety and wellbeing of medical students, progressing through to the benefit-reaping impact of integration within the clinical team - for which the aim is to instil a sense of pride and value within engaged medical students. Further work to investigate, in-depth, the factors impacting the value medical students feel within their roles, in addition to demonstrating the impact of targeted interventions/measures. Further work to investigate the educational value of pandemic working would be valuable, given the uncertainty surrounding medical education over the next 12 months and the possibilities of future pandemics.

Strengths And Limitations

Integral to the validity and reliability of the survey was the strong response rate of 46.2%. Coupled with the demographic spread of respondents across all years and clinical areas (Table 1), this enabled us to deliver a balanced render of the results.

The multi-tier survey design, including a range of question styles, ensured the respondents were able to fully present their perspective. In particular, the inclusion of free text questions encouraged the generation of vast amounts of qualitative data ensuring a depth of understanding of the students' responses.

Despite much discussion, opinion and concern around the integration of medical students in the covid response; there appears to be little, if any, published data evaluating the situation from the medical student perspective. This survey provides an initial insight into a unique area of research, which continues to be ever more relevant as the pandemic develops. While this research focuses on a single centre, the key themes identified can be applied widely. For example, an awareness of common student concerns around pandemic work will be key in shaping future student involvement.

Conclusion

Covid-19 has resulted in unprecedented disruption in every aspect of life and medical education has been no exception. The covid responder scheme gave medical students a unique opportunity to proudly play their part in the healthcare effort. While the long-term impacts will be far reaching on both the NHS and medical education in turn, there is opportunity for improvements to the 'new normal'. Through gaining understanding into the medical student perspective, this paper provides insight into steps towards improved student experience of medical education.

Declaration

Competing interests: The authors declare no competing interests.

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Tables

Table 1: Baseline details of covid responders

| | |
|-------------------------------------------------------------------|-----------|
| Gender | |
| Male | 14 (38.9) |
| Female | 22 (61.1) |
| Year of study | |
| 1 st year | 2 (5.6) |
| 2 nd year | 5 (13.9) |
| 3 rd year | 9 (25) |
| 4 th year | 18 (50) |
| Intercalating | 2 (5.6) |
| What is your current role / what role were you working in? | |
| Clinical assistant | 25 (69.4) |
| Healthcare assistant | 9 (25) |
| Research | 2 (5.6) |
| Porter | 0 (0) |
| Other | 0 (0) |
| Number of hours working per week | |
| 0 – 10 | 1 (2.8) |
| 10 - 20 | 19 (52.8) |
| 20 - 30 | 9 (25.0) |
| 30 – 40 | 7 (19.4) |
| Clinical area of work | |
| Acute internal medicine | 7 (19.4) |
| Cardiology | 4 (11.1) |
| Intensive care medicine | 11 (30.6) |
| Respiratory medicine | 5 (13.9) |
| Geriatric medicine | 2 (5.6) |
| Other medical speciality | 7 (19.4) |

Values are expressed as n (%).

Table 2: Summary of activities undertaken

| Activity | Frequency (n) |
|---------------------------------------|---------------|
| Nasopharyngeal swabs for covid-19 | 54 |
| Documentation and/or ward-rounds | 19 |
| Personal care to patients | 18 |
| Phlebotomy | 15 |
| Patient observations | 15 |
| Cannulation | 14 |
| Moving patients | 14 |
| Changing beds | 11 |
| ECGs | 9 |
| Clerking patients | 7 |
| Discharge summaries | 6 |
| Checking / administrating medications | 5 |
| Ordering investigations | 5 |
| Update relatives | 5 |
| Research and/or audit | 4 |
| Catheterisation | 4 |
| ABGs | 2 |

Figures

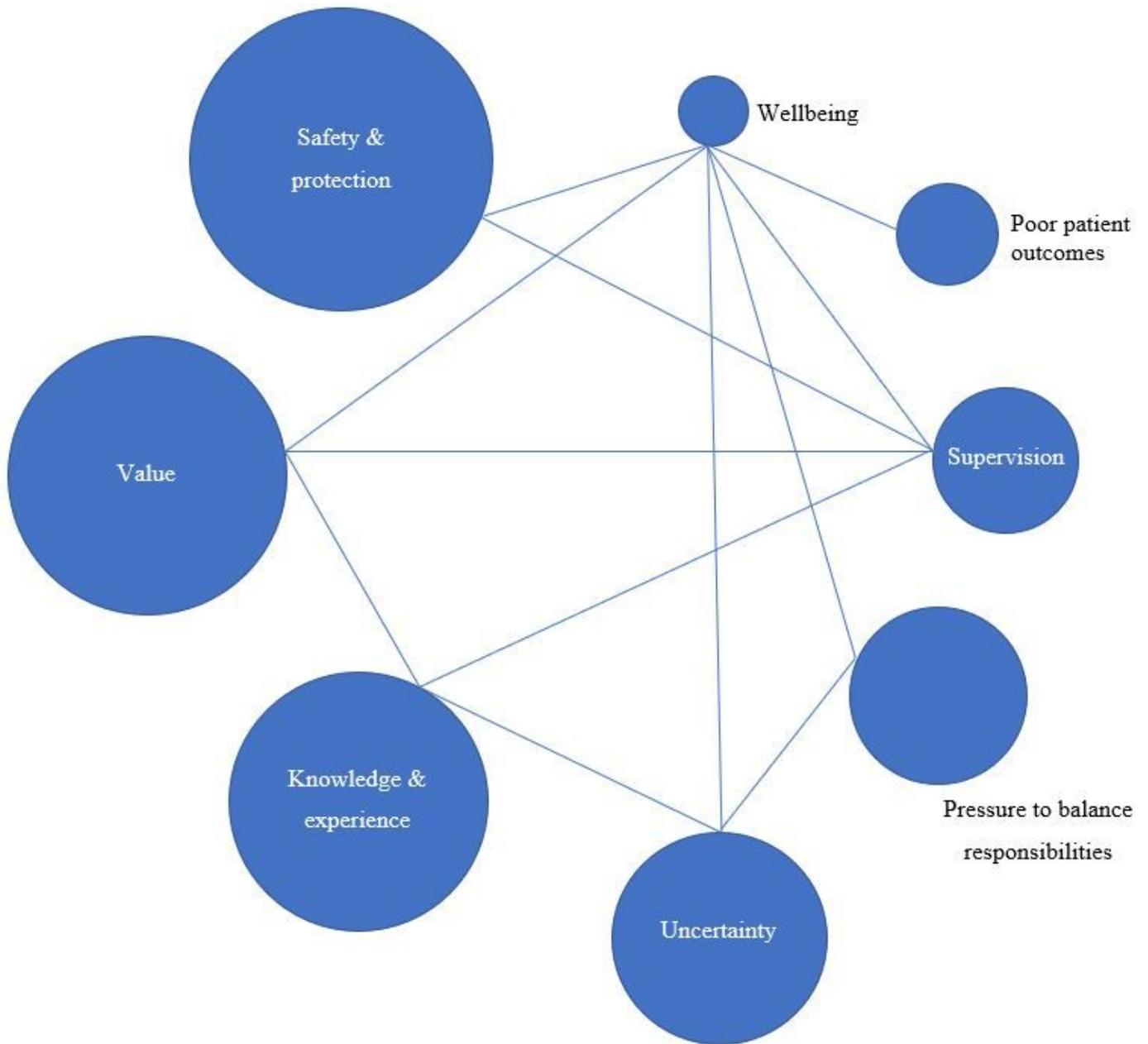


Figure 1

Concerns prior starting employment as a covid responder. Note: Size of the circles represents the frequency by which the specific theme was cited within the free-text responses. Connecting lines represent the inter-linking nature of the concerns raised.

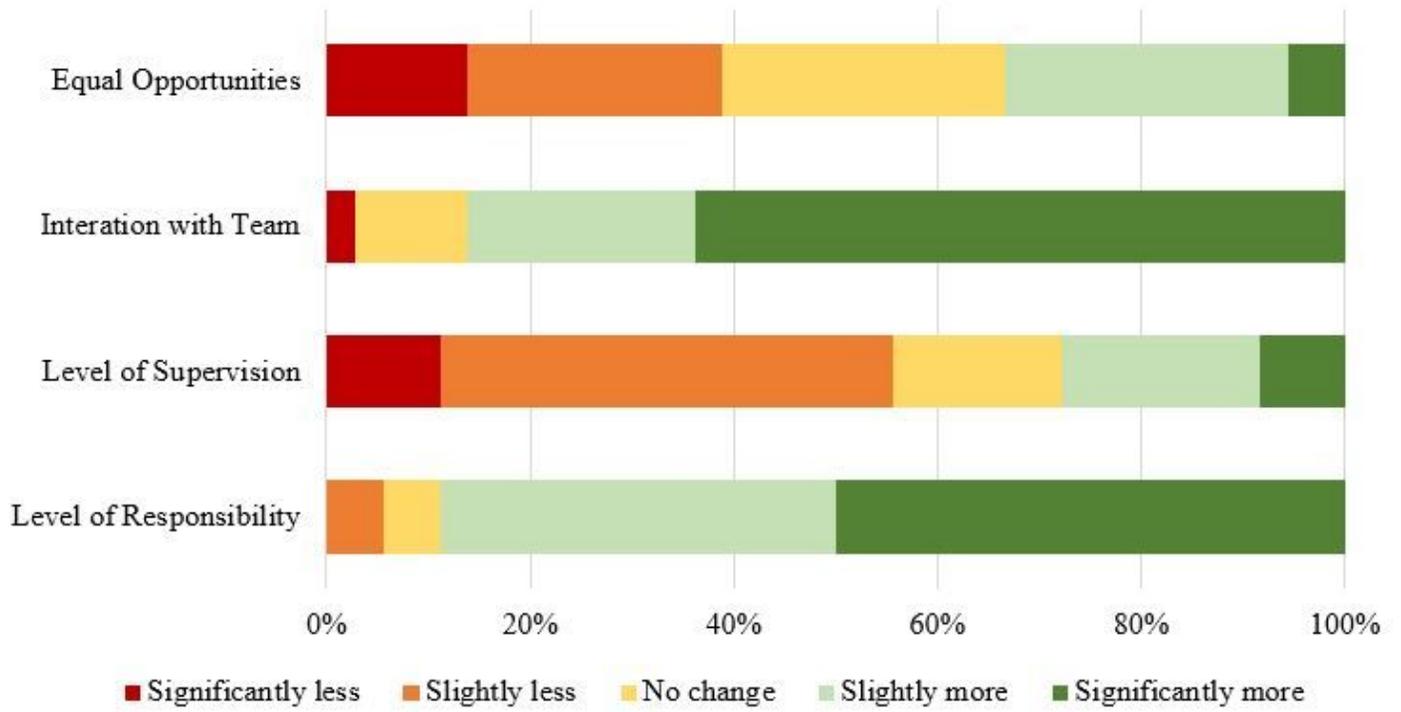


Figure 2

Covid responder programme versus university placement

Figure 3a: Nominal rankings of statements: 'what makes you feel most valued as a medical student'

| Most valued | |
|------------------|-------------------------------------------------------------------------------|
| 1 st | Being thanked verbally by patients |
| 2 nd | Being thanked verbally by a member of the multidisciplinary team |
| 3 rd | Completing jobs that contribute to the patient journey |
| 4 th | Members of the team knowing my name |
| 5 th | Completing jobs that lighten the workload of medical staff |
| 6 th | Providing information to patients or relatives |
| 7 th | Having a rota or a working schedule |
| 8 th | Completing jobs that lighten the workload of the wider multidisciplinary team |
| 9 th | Being asked by a member of the multidisciplinary team how I am feeling |
| 10 th | Being paid |
| Least valued | |

Emotional response Service delivery Administrative aspects

Figure 3b: Suggested actions for providers of medical education in improving the sense of value expressed by medical students within the clinical setting

| |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Encouraging students to reflect on the impact they may have had on the patient physically, psychologically, and socially. |
| Encourage a culture of kindness and team-working, where thanking medical students for their valuable contributions is standard of practice. Consider additional means of recognising excellence in medical students (e.g. regular feedback collection from supervisors) |
| Encourage students to reflect on the contributions they have made in progressing the patients journey. |
| In addition to student cards and lanyards, students should wear a 'my name is ...' badge. A formal induction process whereby students are not only inducted clinically, but also integrated and welcomed into the clinical team. |
| Encourage students to reflect on the contributions they have made to the wider healthcare team. |
| Encourage students to interact and engage with the relatives of patients (if appropriate), and to reflect in-depth on these interactions and their value. |
| Ensuring students have a clear and detailed rota of their educational commitments, including signposting to additional educational opportunities that may not be immediately visible to the attending students. |
| Encourage a culture of care and compassion within the healthcare team, which should extend to care of rotating medical students. Ensuring supervisors, whether educational or clinical, are adequately trained and supported to provide wellbeing and debrief support to their students. |
| Offering medical students the opportunity to join the partnering hospitals bank system, for which students can work as healthcare assistants or clinical assistants. |

Figure 3

Figure 3a: Nominal rankings of statements: 'what makes you feel most valued as a medical student'.
 Figure 3b: Suggested actions for providers of medical education in improving the sense of value expressed by medical students within the clinical setting

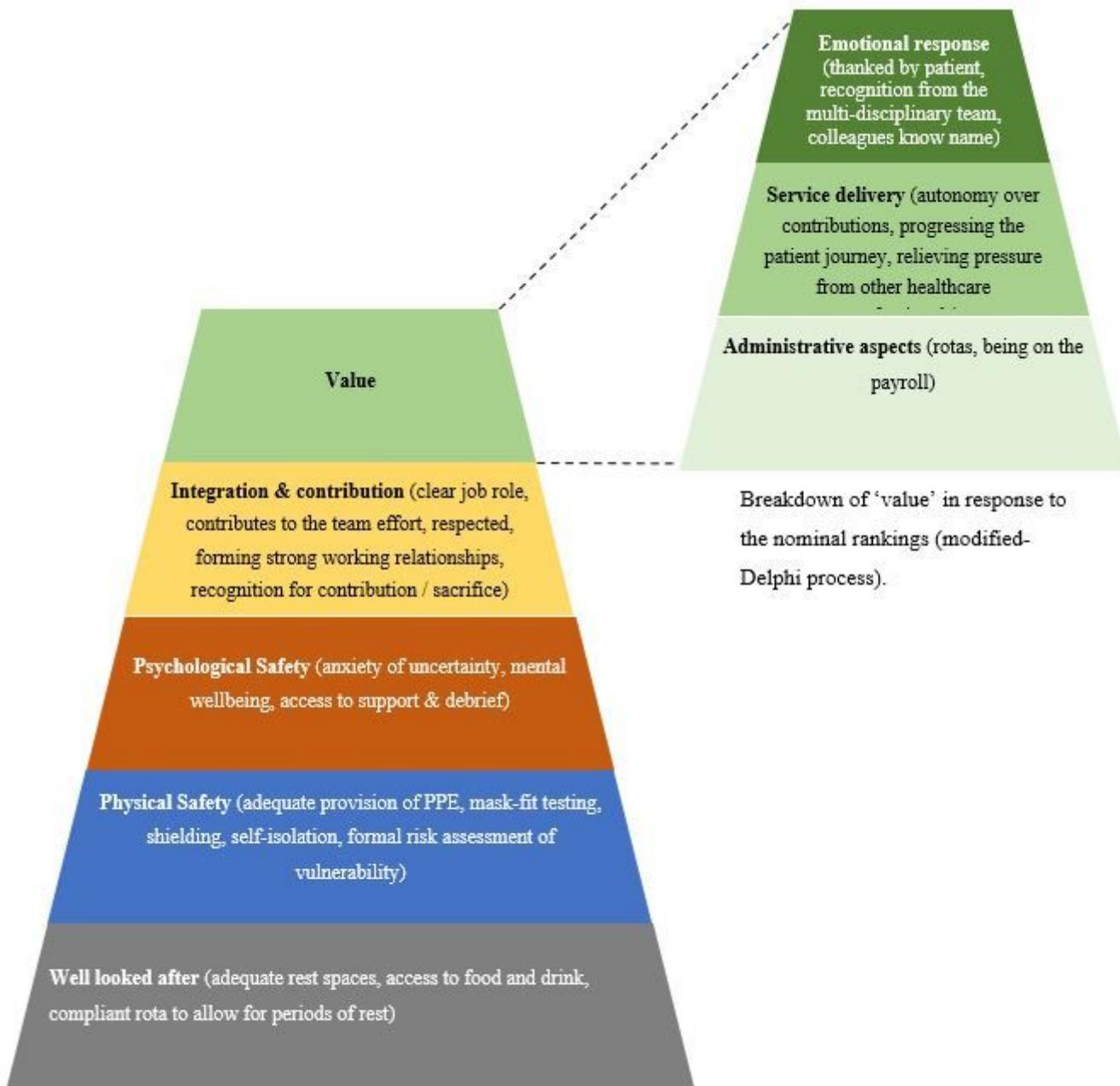


Figure 4

A hierarchal approach to optimising the medical student experience whilst on clinical placement

Supplementary Files

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