

UK Research Supervision Survey 2021 Report

Executive summary

The UK Council for Graduate Education (UKCGE) is the national representative body for postgraduate education and research. With support from the Wellcome Trust and UKRI, we commissioned *Shift Learning* to conduct research to gain an understanding of the workplace experiences of research supervisors working in UK higher education (HE). The first phase of the research involved an online survey, with 3,435 useable responses. This was followed by three online focus groups with UK supervisors across STEM, Arts & Humanities, and Social Sciences, involving 21 research supervisors selected from the survey respondents.

Supervisors enjoy and value their role

“Supervising research is one of the most rewarding parts of my job”

91% of survey respondents agreed that they enjoy being a supervisor and 93% valued their role. They were motivated by being able to help engage, motivate and train the next generation of researchers (72%), in addition to pride in seeing candidates succeed (14%).

Focus group participants agreed with this, suggesting they were most likely to be motivated by personal satisfaction and pride in seeing candidates succeed.

82% of survey respondents believed their role increased the quality of their own research, indicating both personal and professional benefits. Nonetheless, only 76% were satisfied with their ability to be an effective supervisor, and 12% did not feel supported to enact good supervision.

“...one of the most rewarding roles that an academic can perform”

While they were likely to feel valued by their candidates (92%), this was less likely to be recognised from their workplace or institution (52%). This may be linked to a lack of recognition for their role, either via awards, which were not available for 47% of respondents, or within promotions criteria – with 17% of respondents reporting supervisions were not accounted for in promotion criteria (with a further 29% unsure). Furthermore, focus group participants suggested that workload models left them feeling undervalued, as they were given too little time to spend supporting candidates.

Multiple supervisory roles

90% of survey respondents were supervising candidates as a main or principal supervisor, whilst 86% were a second supervisor and 70% were supporting candidates informally. Whilst academics were most likely to be main supervisors (92%), research and teaching staff, professional services and postdocs were most likely to be second supervisors or providing informal support. When compared to the sample overall, those who disagreed with feeling supported to enact good supervision in the workplace were more likely to be supervisors in an informal capacity only (12% vs 22% for informal supervisors only).

93% of respondents had taken part in team supervision, with 71% suggesting they do this 'always' or 'frequently'. 65% agreed that 'team supervision offers a better experience for the doctoral candidate'. The benefits of team supervision were outlined by focus group participants, including increased support, developing interdisciplinary knowledge and gaining supervision skills via working with peers.

Workload and supervisory capacity

Despite a high proportion reporting supervisory responsibilities, only 52% suggested their workplace formally recognised their supervision in workload allocation models. Those who did not consider themselves to have an 'academic' role (8%) were significantly less likely to have their supervision formally recognised (43%).

Around a third (34%) of survey respondents cited their lack of time to commit to supervision, usually due to an already high workload, as a key challenge in open questioning. Similarly, more time was the 'one thing' desired most by supervisors to make their role better (40%) – indicating that supervisors aren't able to dedicate as much time as they would like to this role. While 67% of survey respondents believed they should be a role model for their candidates in

terms of work/life balance, 44% disagreed that they were supported with this by their workplace.

When exploring policies around supervision, 25% of survey respondents suggested that their workplace set the maximum number of candidates a supervisor can supervise at any one time at 5-9, and 7% suggested the maximum was 1-4. On the other hand, 12% reported their workplace policy had 'no limit', whereas 18% reported no policy was in place and a further 34% were 'unsure', which may lead to supervisors taking on too much.

Our survey found that 15% of respondents were supervising 10 or more candidates, which suggests a lack of policy or a disconnect between policy and practice. Focus group findings suggest that this high number reflects the prevalence of team supervision, with more candidates being taken on in a 'second' or 'third' supervisor role. When exploring the optimal number of candidates, the majority suggested up to 4 candidates (18% thought 1-2 would be optimal and 57% felt it would be 3-4 candidates).

Support for supervision

Where support was effectively provided, this was clearly impactful. When exploring supervisors' skills and knowledge, 95% of respondents indicated that they understand their institution's policies and procedures for monitoring candidate progress. Later questioning found that 84% of supervisors agreed that their workplace supported them in this area – which demonstrates that training and support can work when this is successfully implemented. However, when prompted on specific institutional policies within the focus groups, such as the maximum number of candidates a supervisor can take on, many participants were either unsure if policies existed or were not completely clear on specific details. Others suggested policies were used flexibly at departmental level, dependent on workload or staff availability.

There were areas in which supervisors felt support was lacking. This included providing pastoral care to candidates (23% indicated this support was lacking) and providing advice on non-academic careers (29%), as well as skills to support diversity (33%) and being a role model for work/life balance (44%). Many of these factors are considered key to facilitating a good research culture, job prospects and job satisfaction and further institutional training and support is clearly welcome. Particularly in relation to work / life balance, visibility of good practice from above is essential. Candidates must be able to see their supervisors enacting this, whilst supervisors need to see this being encouraged from institutional leaders.

Mental health and wellbeing

A third (32%) of respondents agreed that ‘concerns over supervision have kept me awake at night over the last 12 months’. A similar proportion (31%) agreed that ‘supervising doctoral candidates makes me feel anxious’ over the last 12 months. It is concerning that anxiety and sleeplessness are affecting a proportion of the respondents, particularly when 55% would ask for ‘more time’ or ‘reduced workload’ as the single improvement to their role.

In relation to supporting doctoral candidates, 56% were likely ‘to feel adequately supported by their workplace in responding to mental health and wellbeing needs’ of candidates. This dropped to 49% in ‘feeling supported to provide pastoral care’. Within focus groups, mental health and wellbeing training was discussed as potentially lacking, with some suggesting this should be mandatory for all due to its increasing importance. It is likely that mental health issues amongst candidates have become more prevalent since the COVID-19 pandemic, and our survey shows that 65% felt that supervisory responsibilities have increased during the pandemic. Although 76% agreed that it is the supervisor’s role ‘to respond to mental health and wellbeing needs’, this role cannot be taken for granted. Adequate training and support

is crucial, not least because increasing supervisory responsibilities in this area could ultimately have a negative impact on supervisors’ wellbeing in turn.

Diversity of doctoral candidates

75% of respondents agreed that ‘increasing the diversity of doctoral candidates would improve workplace research culture’. 85% felt confident that they had the interpersonal / intercultural skills to supervise doctoral candidates from diverse backgrounds’. Only 38%, however, reported that they had supervised a UK-domiciled candidate from a racial or ethnic minority in the last few years, and only 14% had supervised someone from an underrepresented gender identity in the same period.

A third (33%) did not feel adequately supported in acquiring the interpersonal and intercultural skills needed to supervise doctoral candidates from diverse backgrounds, suggesting more needs to be done to ensure supervisors are equipped to support diverse talent. Most supervisors in the focus groups noted that they had to learn from experience when supervising candidates from backgrounds that did not match their own.

When asked to specify priority factors in decision-making when selecting doctoral candidates, ‘improving access to PGR for under-represented groups’ was likely to be low priority, with only 11% of the sample indicating this was a top 3 factor. However, 64% of respondents also reported that their priorities in selecting candidates aligned with their workplaces’, which may suggest that access for under-represented groups is not felt to be an institutional priority in selection.

92% agreed that there should be more opportunities to recruit funded candidates in their specialism, of which 21% felt that funding should be targeted to under-represented groups.

The UK Research Supervision Survey is the UKCGE's national survey offering those involved in research supervision an opportunity to share their experiences of supervising doctoral candidates.

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Introduction

Background and research objectives

Established in 1994, the UK Council for Graduate Education (UKCGE) is the national representative body for postgraduate education and research.

In May 2021, with support from the Wellcome Trust and UKRI, the UK Council for Graduate Education launched the first UK Research Supervision Survey (UKRSS), a national survey offering those involved in research supervision an opportunity to share their experiences of supervising doctoral candidates.

The survey was open to all those involved in supervising doctoral candidates enrolled at a UK HEI, whether they were supervising in a formal or informal capacity, partly based in industry, or located somewhere other than the UK.

The purpose of the survey was to enable the UKCGE and the wider postgraduate community to better understand the complexity of contemporary research supervision and how it is recognised and rewarded. It is hoped that the findings of the survey will be used to identify and share supervisory practice, to enhance the support available to doctoral supervisors, and to provide insights into the culture of research supervision.

The UKRSS ran during May 2021 and elicited 3,435 responses from supervisors across the UK. It is difficult to estimate the total number of active research supervisors in the UK, and therefore to give an accurate indication of the sample size against the total population. On the assumption that there is an average of five doctoral candidates per principal research supervisor, and that there are 110,675 doctoral candidates enrolled, there would be 22,135 principal

research supervisors in the UK. If this is correct, it follows that the UKRSS represents ~15% of the UK research supervisor population.

This new empirical data explores:

- Who is supervising - including the extended team of researcher developers, professional support staff, early-career researchers and mentors
- How supervisors perceive and approach their responsibilities
- What training, support, reward and recognition is given to supervisors by institutions
- What motivates supervisors to provide effective supervision, and what are the perceived barriers to being effective supervisors
- How supervisors have been affected by Covid-19, and the broader mental wellbeing of research supervisors
- Whether doctoral study and supervision have become more demanding in recent years, and if so how.
- What is the role of research supervision in building positive and inclusive research cultures.

Quantitative methodology

An online survey was developed by Shift Learning in collaboration with the staff and trustees of the UKCGE, as well as representatives of Wellcome and UKRI, and several other expert advisors to the UKCGE.

The survey included up to 50 questions with an estimated completion time of 15 minutes. Participants were incentivised with entry into a £250 prize draw. Participants were recruited via email, social media and the UKCGE website, with the majority of respondents coming from UKCGE contacts. They were self-selecting, so biases are potentially present in terms of those who feel particularly strongly about research supervision.

Participants were individuals involved in research supervision in some way, from both academic and non-academic organisations. The survey went live on 10th May 2021 and remained open for three weeks, closing on 1st June.

Qualitative methodology

Shift Learning contacted individuals who opted in at the end of the survey, asking if they would like to participate in the focus groups. Suitable respondents were selected based on selection criteria, such as university mission group, career stage, and subject area. The three groups were divided by general discipline: Arts & Humanities, STEM, and Social Sciences. Each group had seven participants.

A discussion guide was developed by Shift in collaboration with UKCGE, based on survey areas they wished to explore further. Focus groups were conducted online via Zoom. The groups included use of Zoom polls. Mural software was also used to provide an engaging visual element to the groups. Participants were paid £30 as a thank you for their time. The groups were recorded and transcribed verbatim

to ensure crucial subtleties and nuances were not lost. These transcripts were anonymised by removing names of people and institutions. Atlas.ti software was used to code transcripts by different themes and topics.

Scope and limitations

This report presents a thematic summary of the findings of both the survey results and the focus group discussions. Interpretation is kept to a minimum, except where a majority of the responses indicate a clear conclusion. Emphasis has been given to providing direct quotations from open text responses or transcripts. Wherever possible, direct quotations from open text responses or transcripts have been presented in full. In several cases, respondents held contradictory views and the report attempts to present these differences impartially.

This is the first of several intended publications relating to this dataset.

Profile of respondents

Survey respondents

92% of respondents were in academic roles and, of those, most considered themselves to be in their mid or late career.

Research (17%) and teaching (10%) staff were also represented. As might be expected, postdocs had the highest proportion of participants who considered themselves early career.

Career stage

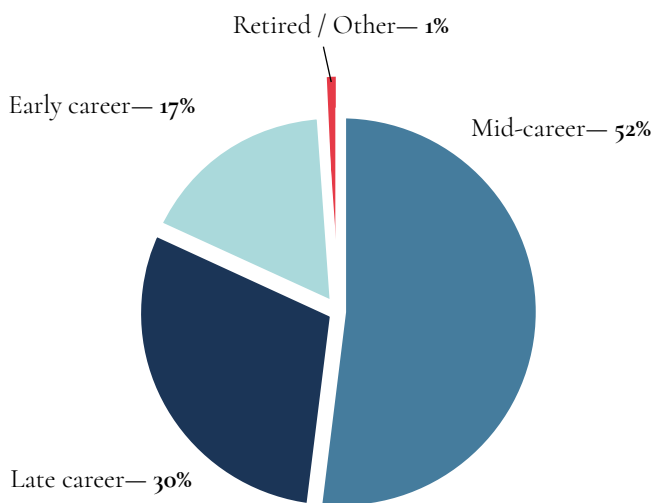


Fig 1. Respondents' career stage n= 3,435

The vast majority of participants (97%, base n = 3,435) worked in academic institutions. 2% worked in not-for-profit research institutes, and the remaining

1% worked in other organisations, such as government laboratories, healthcare settings, industry, and SMEs.

In an optional question, participants could name their primary institution, as well as any other institutions at which they supervised. A total of 158 individual institutions were named. Just over two thirds of participants worked at pre-1992 institutions, and 52% listed a Russell Group member as their primary institution.

Respondents were from across the UK (base n = 3,394), with most coming from Scotland (16%),

Institution type

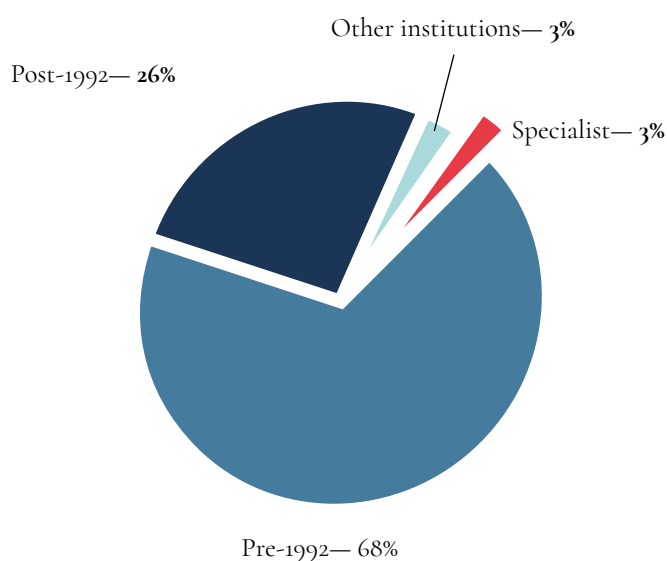
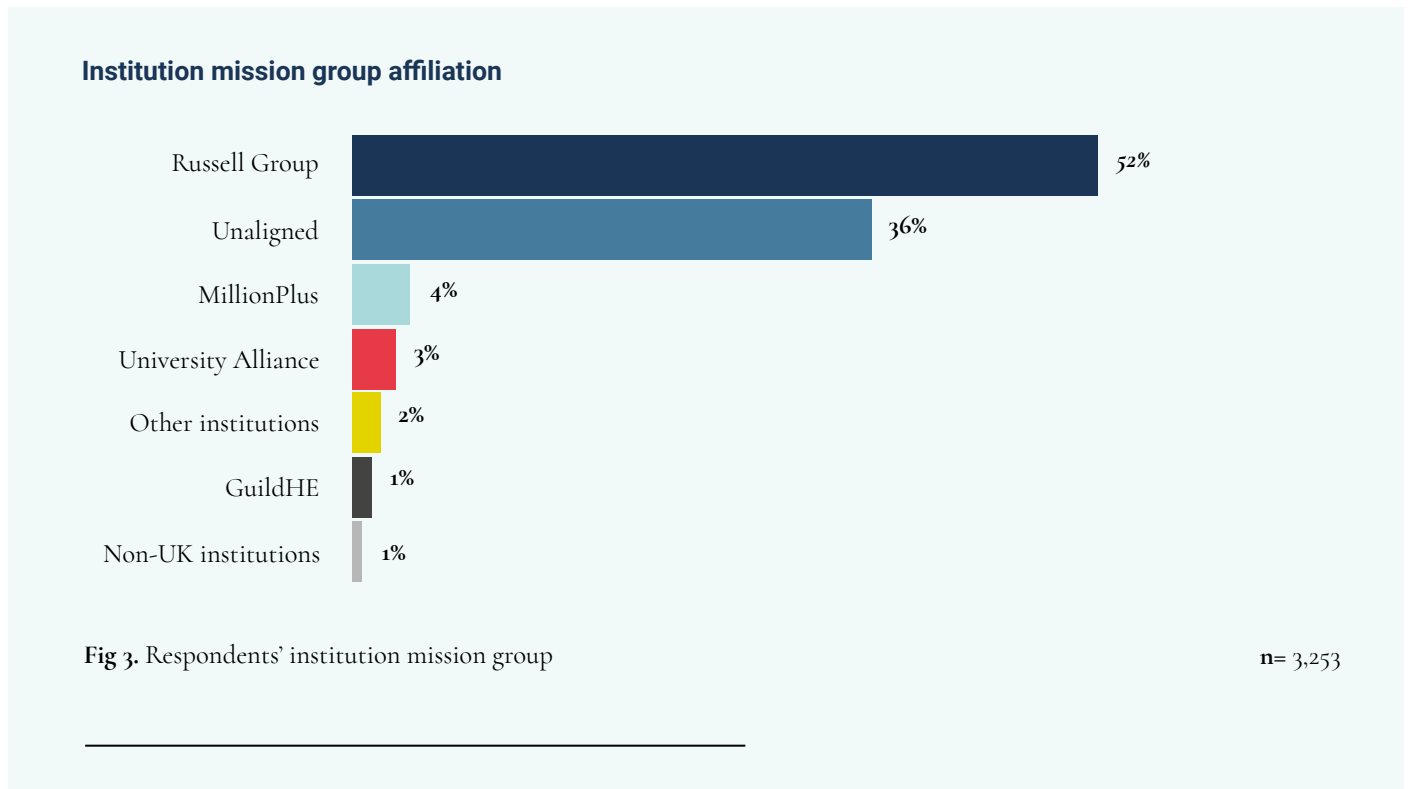


Fig 2. Respondents' institution type n= 3,253



London (15%) and the South East (13%). Only a small number of participants resided in Wales (3%) or Northern Ireland (2%).

59% of respondents were from a STEM discipline. The largest representation was from Biological Sciences (14%), followed by Physical Sciences (11%), Social Studies (11%), Engineering & Technology (9%), Subjects allied to Medicine (8%) and Historical & Philosophical Studies (7%), with 14 other subject areas represented.

46% of respondents identified as female, 50% as male, 3% preferred not to say, and the remainder were non-binary / non-gender conforming or other.

In terms of ethnicity, 89% of respondents were white. Of those who were not, Asian or Asian British comprised the largest group.

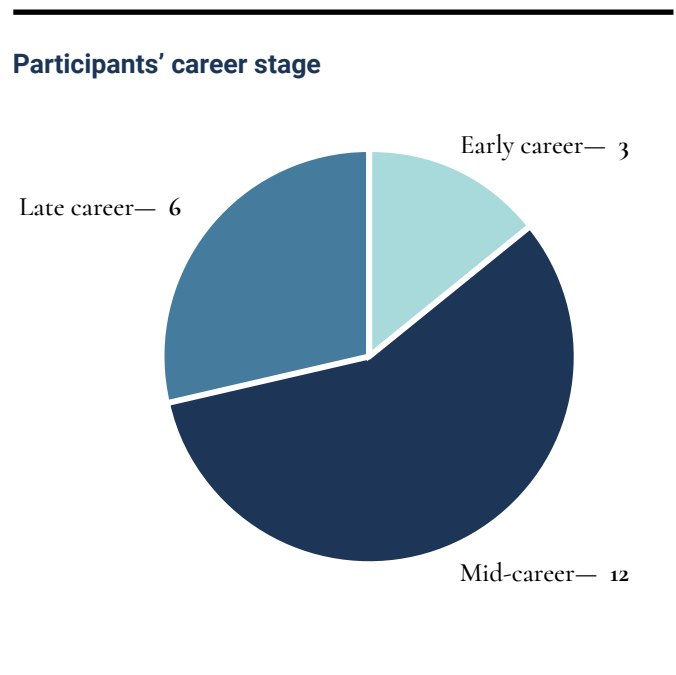


Fig 4. Focus group participants' career stage n= 21

Focus group participants

21 participants were recruited for the discussion groups, with seven in each group. The groups were split into Arts & Humanities, STEM, and Social Sciences, with representation of different fields and subjects. Attention was also paid to recruiting from different career stages, supervisory experience, ethnic backgrounds, so as to understand a range of experiences. The career stages of focus

Supervisory experience of focus group participants was as follows:

Participants' number of supervisees

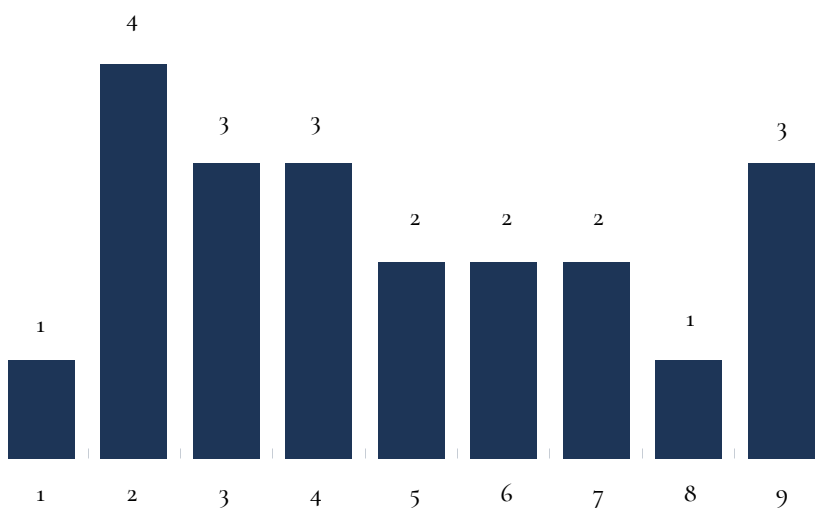


Fig 5. Focus group participants' number of supervisees n= 21

Work experiences: Transitions between institutions & sectors

94% of supervisors have made a transition within their career. 75% of the overall sample had changed employers within the same sector during their career, while only 6% had never made any kind of transition.

Over a third of supervisors (39%) had transitioned into their role

Total current candidates

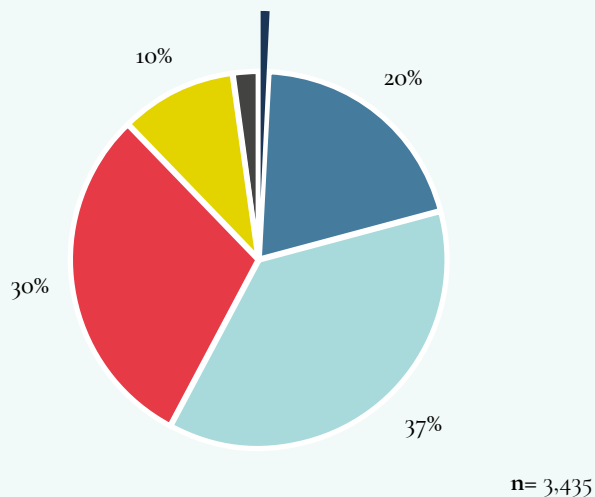
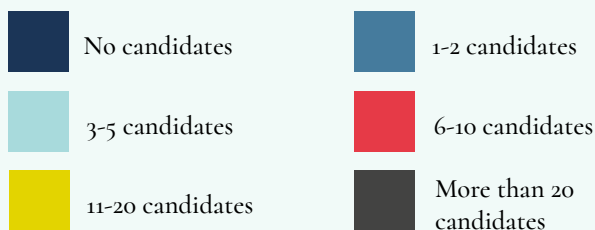


Fig 6. Total number of candidates survey respondents' are currently supervising

Key



Number of candidates per supervisor

Around half of the sample supervised 1-2 candidates as main or principal supervisor, as second supervisor and in an informal capacity, i.e. indicating some responsibility for between 3-6 candidates. 57% of respondents supervised 1-5 candidates overall.

25% of early-career supervisors were not the principal supervisor for any candidates, but this figure dropped sharply for mid- (8%) and late (7%) career supervisors.

Those supervising within engineering were likely to have the most candidates, with 38% having 6-10 candidates in total.

Those supervising in non-academic institutions were most likely to supervise 1-2 candidates in total (36%) compared to those within other institution types. Only 17% of those supervising in Russell Group institutions supervised 1-2 candidates in total, with 70% of these supervising 3-10 candidates.

How many doctoral candidates are you currently supervising?

Number of candidates you are a main or principal supervisor for:



Number of candidates you are a second supervisor for:



Number of candidates you are supporting informally:

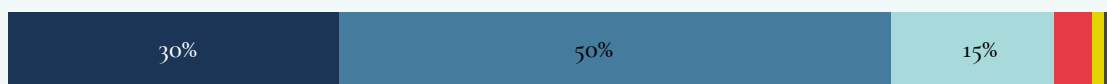


Fig 7. Breakdown of supervisory roles and number of candidates supervised

n= 3,435

from another sector, such as industry. Those working in sciences & maths were most likely to have worked for a different employer within the same sector (80%), while those in engineering were least likely to have done so (67%). Those supervising in business were most likely to have changed sectors (55%), whereas those working in medical disciplines were most likely to have changed between teams (39%) and departments (36%). Those supervising at post-1992 institutions were more likely to have changed sectors (49%), teams (39%), and departments (32%)

compared to the overall sample, whereas those in Russell Groups were less likely (33%, 30%, and 23%, respectively).

Experience of doctoral completions

Over a third of respondents had seen 1-5 candidates through to successful completion (37%). 17% had seen none through to completion and, as expected, over half of these were early-career supervisors (58%).

How frequently have you supervised candidates enrolled for the following doctoral programmes in the last 5 years?

Professional Doctorate



Practice-based Doctorate



PhD by Publication



PhD (article-based / journal format thesis)



Collaborative Doctorate



PhD (cross / inter-disciplinary)



PhD (single subject)



n= 3,435

Key

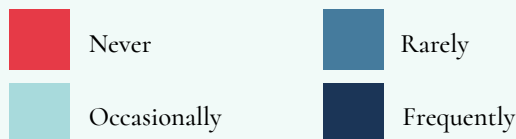


Fig 8. Supervising within a diversity of doctoral programmes

26% of those in MillionPlus institutions and 21% of those in post-1992 institutions had seen no candidates through to completion, while 15% of those supervising in Russell Group institutions had seen more than 20 candidates through.

Supervising within a diversity of doctoral programmes

The vast majority of respondents had the most experience with supervising on single-subject PhDs (fig 8). This was consistent across demographics, with the obvious exception of those at non-academic institutions, which were most likely to supervise on Collaborative Doctorates than other institution types.

Background of current doctoral candidates

Within the survey, we explored the way that supervisory practice may differ depending on the individual needs of doctoral candidates. We therefore asked respondents to indicate the background of the doctoral candidates they were supervising (fig. 9 & 10).

The majority of supervisors suggested candidates commenced studies directly from their previous HE qualifications (86%). This was particularly the case for those specialising in biological sciences (97%), physical sciences (96%) and language & literature (92%).

While 27% suggested their candidate/s were employed but funding their doctorate independently, 19% indicated their employed candidate/s were being sponsored by their employer. Those specialising in

Route of candidates into doctoral education

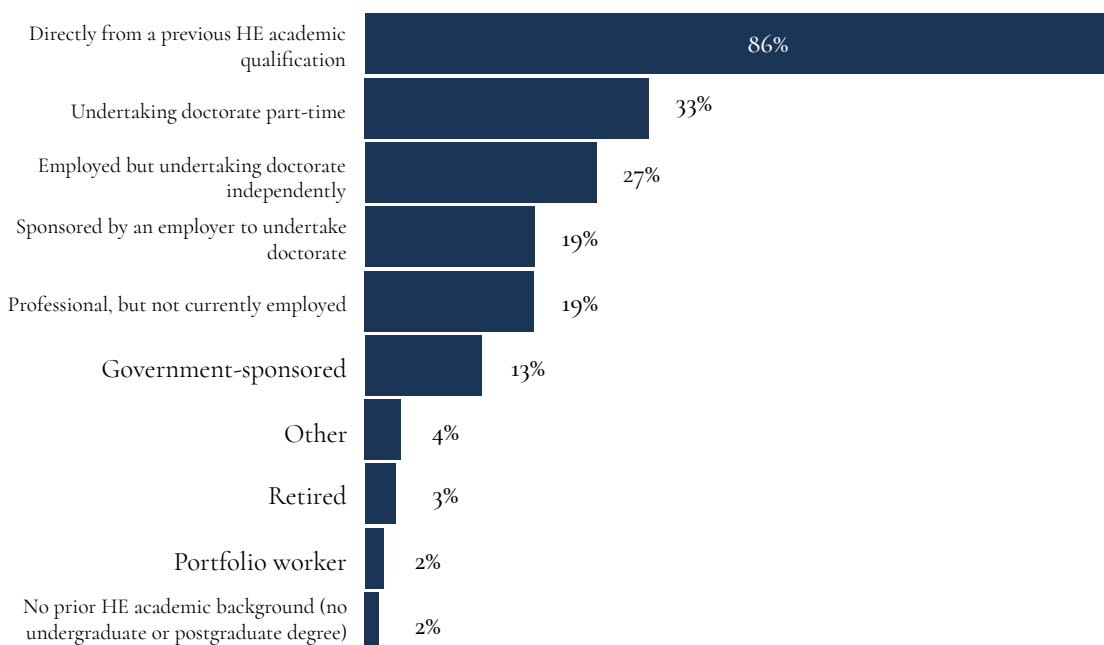


Fig 9. Background of current doctoral candidates

n= 3,435

education (67%), creative arts & design (46%), and business & administration studies (41%) were significantly likely to suggest candidates had been sponsored by an employer.

Only 2% reported that their candidate/s had no prior HE academic background before undertaking their doctorate. This was more likely to be the case for specialist institutions (5%), as well as those specialising in creative arts & design (5%).

Reflecting on the last five years, respondents were asked whether they had encountered candidates with a diverse set of background factors (fig. 10).

Two thirds of survey respondents suggested they had supervised someone with English as a second language (66%). This was significantly likely to be the case for those based at pre-1992 institutions (69%), compared to those based at post-1992 institutions (60%).

While 62% reported they had supervised a candidate who was from an ethnic and/or racial minority group, only 38% suggested their candidate was UK-domiciled. Respondents living in London (46%) and East Midlands (47%) were significantly more likely to have supervised ethnic and/or racial minority candidates than other UK regions – particularly Scotland (31%) and Northern Ireland (22%).

Supervisors working at post-1992 institutions were significantly more likely to report supervision of mature candidates (38%), remote learners prior to COVID-19 (34%) and those with caring responsibilities (41%), compared to those based at pre-1992 institutions (19%, 24% and 35% respectively). This may suggest post-1992 institutions provide more flexible study conditions for these groups.

Background of current doctoral candidates

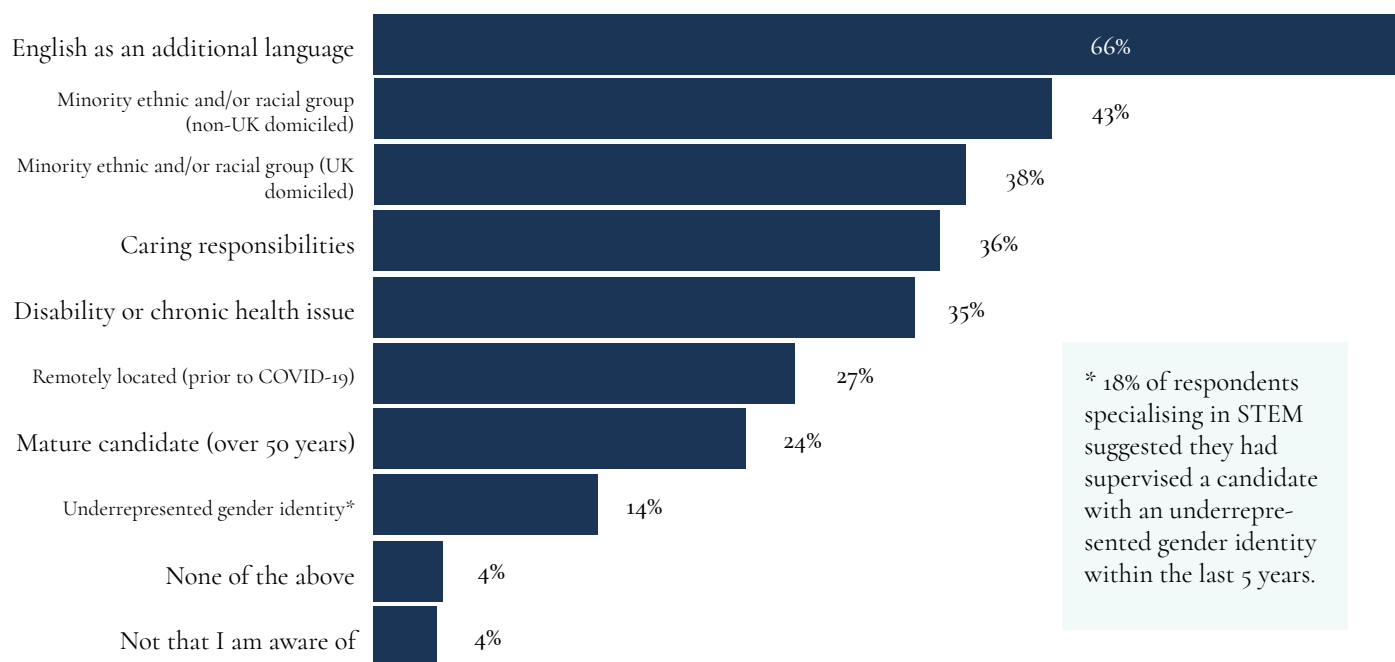


Fig 10. Background of current doctoral candidates

n= 3,435

Recruitment, selection and funding

Priorities in selecting doctoral candidates

The survey sought to explore supervisors' priorities when selecting a doctoral candidate. We asked supervisors to rank 11 factors – those not involved in the selection of candidates were asked to indicate which factors they value most. Any factors they did not deem important were left unranked. The following chart (fig 11) lists the priorities as a percentage of those ranked 1st-3rd.

Top priorities included quality of candidates' research proposal (70% ranked 1st-3rd), followed by

alignment with supervisors' own research (60%) and candidates' potential to contribute to the field (60%). Research reputation of prior institution(s) was least likely to be considered a key priority (5% ranked 1st-3rd).

Some groups were significantly more likely to prioritise improving access for underrepresented groups, compared to their counterparts. For example, women were more likely to rank this option 1st-3rd compared to men (13% vs. 8%), in addition to non-white ethnic minority supervisors compared to white ethnic supervisors (13% vs. 11%).

Priorities in selecting doctoral candidates

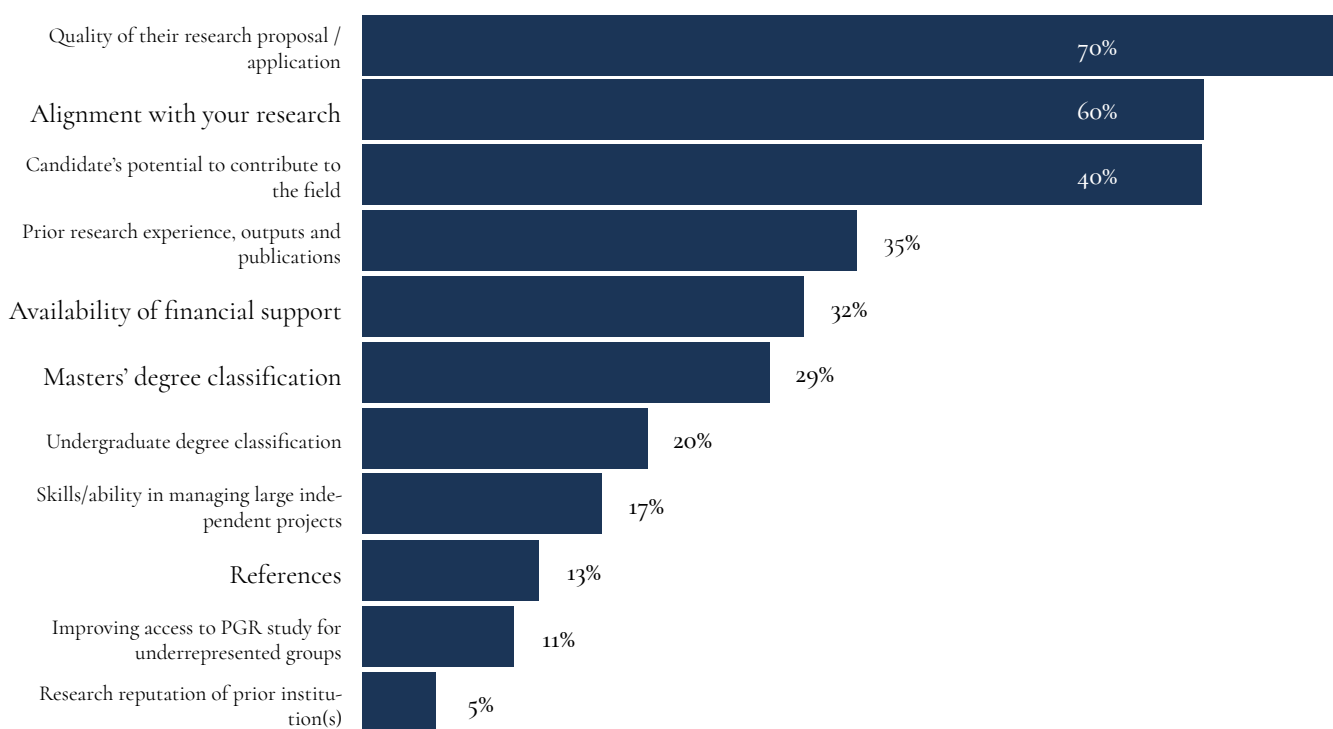


Fig 11. Priorities in selecting doctoral candidates

n= 1,940-2,819

Pre-1992 institutions were significantly more likely to prioritise prior research experience (37%), availability of financial support (35%), and master's degree classification (32%), compared to post-1992 institutions (29%, 24% and 24% respectively).

'Alignment with your research' was the popular choice for STEM supervisors, while improving access was slightly more popular amongst AHSS supervisors (14%) than the whole sample.

Respondents were asked to provide any other factors they considered a priority during candidate selection. Open responses (n = 526) included:

- Candidate's enthusiasm / motivation / passion / interest / dedication (41%)
- Candidate's skill set / abilities / knowledge (21%)
- Candidate's interview performance / communication & interpersonal skills (18%)
- Good personality fit / suitable for the team (18%)
- English language proficiency (7%)
- Response to feedback/guidance (4%)
- Relevant work / professional / practical experience (3%)
- Future career goals (3%)

Within the focus groups, respondents gave feedback on what elements would make up their recruitment checklist when selecting doctoral candidates. Feedback here generally mirrored that of the quantitative stage, with quality of application also featuring highly:

- Quality of application
- Academic performance
- Strong references to accompany the application
- Passion and excitement for their subject area
- A sense of curiosity, originality and enquiry
- Ability to take feedback and make amendments

- Alignment of research interests and capacity
- Fee position and financial strategy of the candidate.

What does "quality of application" mean?

In focus group discussions, the elements making up a quality application included a strong viable proposal (with a good bibliography) and an interview in which applicants were able to speak with passion. For some, a level of innovation/creativity and bringing something new to the field was also important.

"Originality for me probably, it has to be something that hasn't been fully done before so there is really a need for that particular topic".

Arts & Humanities, Russell Group, West Midlands, Late career

Work experience and professional background was also referenced in the Arts and Humanities focus group. When it came to understanding what "Academic performance" meant, this included not only degree classifications, but also 'wider skills', and it was also admitted that the reputation and ranking of candidates' previous universities was considered.

One participant noted, however, that 'potential supervisors' are increasingly heavily involved in writing the applications themselves:

"I'm spending more time writing PhD applications, [...] it's getting refined by potential supervisors and I spend quite a lot of time with some students writing it before the university even knows about it."

Social Sciences, Post-92, South West, Late career

The softer skills, such as team work and time management to some extent, were relegated to the ‘nice to have’ column as areas in which candidates could grow. Areas such as having a clear and coherent project plan, and lived experience of the area being researched or experience of being a researcher, were seen to be dependent on subject. For some, the fact that plans could change over time was seen as important in allowing candidates room for this change.

Practical elements were also stated to be important when considering the overall viability of a doctoral application. Here, funding of the candidate featured and their favoured mode of study, alongside the alignment of research interests with expertise and department supervisory capacity.

In terms of measuring less tangible areas, such as passion and enthusiasm, respondents described how it shone through at interview – you could tell who really wanted it, as they were eager but not over-polished. They also stated that while time management was important, it was simply too tricky to judge at this stage.

It should be noted that the responses regarding priorities in recruitment were collected irrespective of whether the respondents had direct responsibility / experience of recruitment in practice. Some respondents expressed frustration that they were under external pressures to take on candidates:

“[I would like] control over who I hire. Currently this is taken away through recruitment to DTC and PhD programmes. This is usually a disaster as you have to take people who may or may not actually be interested in your research. Most students simply want a PhD as another degree and do not see it as a training exercise for a research-based career. It’s just another degree to get a higher salary in the private sector. I’m fine with this attitude, but I would like to know beforehand so I can choose candidates that actually want to be researchers.”

Anonymous

“There was pressure to take them on because they came with funding and we needed them for departmental metrics, to help with teaching loads etc. Overall they struggled to complete and did not produce high quality scholarship. In many cases they really did not have any sense coming in what a PhD required (neither did I when I undertook one) but a lot of people start out on PhDs and do not finish because they don’t actually know what a PhD is.”

Anonymous

Some respondents felt excluded by the Doctoral Training Partnerships (DTPs) model for recruiting doctoral candidates. For example, one respondent said:

“[I would like] the ability to be able to select my preferred candidates (the attributes I look for in a candidate do not align with the attributes preferred by the DTP, as a result, I have never successfully secured a PhD student through our DTP, funding has always been through unusual sources).”

Anonymous

This notion of the supervisor ‘being removed’ from the recruitment process came up several times. For example:

“[I would like to have] the agency to pick your own students rather than going through the DTP process which removes the supervisor from the student.”

Anonymous

“Funding decisions [should be] devolved to individual departments in HEIs, so that we can recruit the candidates we really want to work with, rather than relying on the decisions of a much further removed DTP selection process.”

Anonymous

Others felt that doctoral funding now suffered from “DTP domination” which did not allow a fair distribution of funding for doctoral study, or that their institutions or subject areas were disadvantaged by the DTP model of distributing doctoral funding:

“Outside of a DTP (which are essentially the richer, more established institutions) doctoral funding has become almost impossible to obtain. The system has reinforced the divide between haves and have nots. It is grossly unfair and detrimental to research quality.”

Anonymous

“The UKRI DTP structure has significantly reduced the opportunity of my research group to grow compared to when it was possible to write PhD projects into grant applications. This is

especially the case in cross-disciplinary research.”

Anonymous

“My university is not part of a DTP and finding funding for PhD students is increasingly down to the supervisor. More open funding that is not directed towards specific institutions would help institutions like mine invest more in research supervision.”

Anonymous

Institutional priorities in selecting doctoral candidates

64% agreed that their priorities in selecting a doctoral candidate aligned with those of their workplace, with 11% disagreeing. Those who disagreed were significantly likely to suggest that improving

Attitudes to doctoral candidate selection

Increasing the diversity of doctoral candidate populations would improve the research culture at my workplace/institution



My priorities in selecting a doctoral candidate align with my workplace/institution's priorities



The recruitment and selection process at my workplace/institution is a good predictor of whether the candidate will become an independent researcher

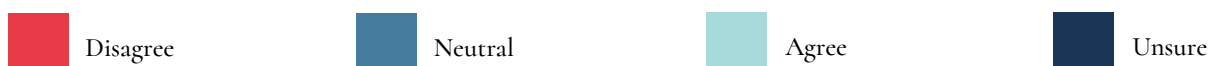


Fig 12. Institutional priorities in selecting doctoral candidates

n= 1,940-2,819

access to PGR study for underrepresented groups was amongst their top 3 priorities – suggesting this emphasis may be lacking at their institution.

Preparedness for doctoral study

49% of respondents working at a not-for-profit research institute thought that entrants’ preparedness for doctoral study has improved in the past 5 years, compared to 21% of those in academia. AHSS disciplines were more likely to agree with this statement (25%), compared to those within STEM disciplines (19%).

Do you agree that “Entrants’ preparedness for doctoral study has improved within the past 5 years”

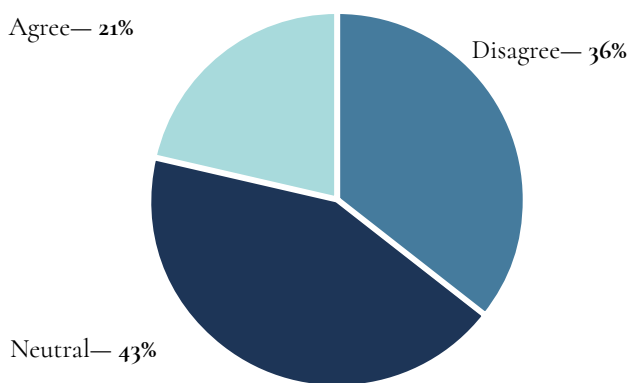


Fig 13. Preparedness for doctoral study n= 2,632

“The reason I wrote neutral was because I had partly somewhat better and partly somewhat worse. I find the students are much more prepared in terms of polish when they come to interviews or they’re prepared for that kind of

presenting themselves. [...] But actually I feel the students coming out of UG and actually especially Master’s students now are much less academically rigorously prepared for a PhD. The classic student who’s coming to a PhD now is actually I think now a student who would have been doing maybe a Master’s before. So it depends on how you’re looking at the question.”

STEM, Russell Group, London, Mid-career

“[...] I notice a growing tide of people who seem to regard a PhD as like another Masters degree and seem completely unprepared for the rigours of PhD study.”

Anonymous

Within the focus groups, there were mixed opinions regarding whether entrants’ preparedness for doctoral study had improved within the last 5 years, with most feeling that they had either seen a change for the worse or taking a neutral stance. As the quote above illustrates, however, a ‘neutral’ response does not necessarily mean that no change is perceived to have taken place.

Those who considered candidates to be better prepared gave the following kinds of reasons:

- Better support from the institution, including scholarships.
- Better applications, and the increased ability to attract candidates from a wider area (Post-92).
- Staff becoming more experienced at guiding candidates. Seeing a progression up internally from UG and PG at the institution – means they have been better prepared and shaped by the institution.
- More polish in interviews – with candidates better prepared to present themselves (Russell Group).

“They get more support from the institution than they used [to] to be blunt. But also because we’ve got scholarships, they tend to attract from a wider area, students who are more together. Finally we used to be desperate for candidates so we didn’t bin anyone off no matter how ridiculous at an early stage but now we have sufficient candidates so we bin off those which are ridiculous at a fairly early stage.”

Social Sciences, Unaligned, East Midlands, Late career

Those who considered that preparedness for doctoral study had decreased said:

- Lack of strength in the breadth of subject knowledge, with a greater emphasis on specialism earlier in UG and PG study (Arts & Humanities), for example:

“I feel a bit conflicted, it’s not like in every single aspect students are worse, but maybe just the breadth of knowledge is less, maybe there is more focus on specialisation and less on a broad knowledge of the field of discipline.”

Arts & Humanities, Russell Group, West Midlands, Late career

- Less academic rigour in STEM.
- More applications from international candidates from a range of countries, who are seen as ‘hedging their bets’ rather than putting time and effort into creating a strong application.

Complexity of doctoral study

56% felt that doctoral study had become more complex over the last 5 years (fig 14). Those specialising in medicine & dentistry (71%) and biological sciences (69%) were significantly likely to agree with this statement, whereas physical sciences (48%) and engineering & technology (45%) specialists were less likely.

Do you agree that “The complexity of doctoral study has increased over the past 5 years”

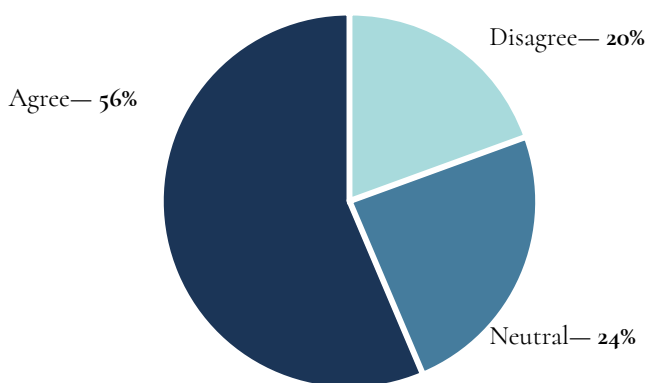


Fig 14. Complexity of doctoral study n= 2,721

Diversity of doctoral candidate populations

“I would ideally take more diverse students who align with my group’s inclusive research culture and research philosophy. But I keep receiving funding only for white male students from privileged backgrounds, who I am then forced to take, and then have problems supervising since their research culture does not align with the groups.”

Anonymous

Three quarters (75%) of respondents agreed that increasing the diversity of doctoral candidates would improve workplace research culture (fig 15).

Women were significantly more likely to agree with this statement (81%) compared to men (71%). Note that the Wellcome Trust’s Reimagine Research study (2020) found that women were generally worse off than men in terms of their experiences in research culture.

To what extent do you agree or disagree with the following statement

Increasing the diversity of doctoral candidate populations would improve the research culture at my workplace/institution

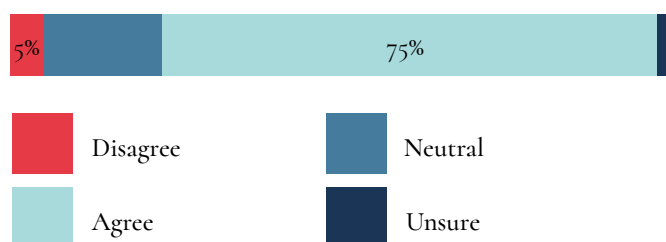


Fig 15. Diversity of doctoral candidate populations n= 3,435

Doctoral funding: Access, distribution and future opportunities

27% disagreed that doctoral funding was allocated on the basis of the candidate’s research potential. STEM specialists were significantly more likely to disagree with this statement – particularly those within the physics discipline (34%).

To what extent do you agree or disagree with the following statement

Access to doctoral funding is allocated on the basis of the doctoral candidate’s research potential

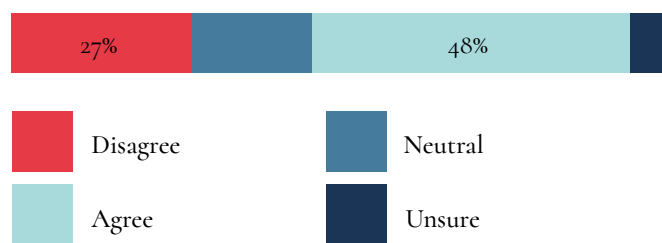


Fig 16. Doctoral funding: Access, distribution and future opportunities n= 3,435

We further asked experienced supervisors (base n = 2,834) whether the major mechanism for distributing doctoral funding – through doctoral training partnerships / centres – had improved the doctoral candidate experience. 41% agreed, however 40% were either neutral or unsure (fig 17).

We also asked whether there should be more funded opportunities to recruit doctoral candidates: 92% agreed (see fig 18).

Over a fifth of respondents believed funding should be targeted specifically to underrepresented groups (21%).

To what extent do you agree or disagree with the following statement

The introduction of doctoral training partnerships or centres has improved the doctoral candidate experience

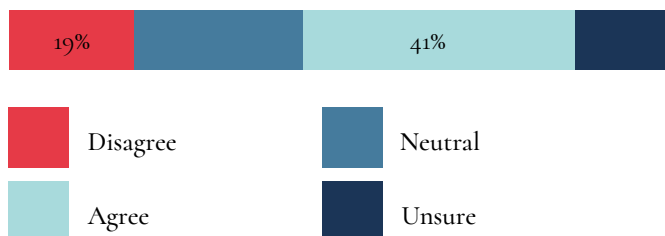


Fig 17. Doctoral funding: Access, distribution and future opportunities n= 2,834

“At the moment we select students based on markers of prior success, which are often biased towards privilege rather than potential. I don’t see how this can change without a dedicated effort to support diversity.”

Anonymous

This proportion increased to 31% when looking at results for non-white ethnic minority supervisors, compared to 21% of white supervisors. Women were also significantly more likely to select this option (27%), compared to men (17%).

3% suggested their specialism was recruiting too many doctoral candidates. Those specialising in history & philosophy (8%) were significantly likely to select this option, compared to other subject areas.

While there were no significant differences by institution type, those working at Russell Group institutions were slightly more likely to suggest that the HE sector is recruiting too many doctoral candidates (6%), compared to post-1992 institutions (4%).

Should there be more opportunities to recruit funded doctoral candidates in your specialism?

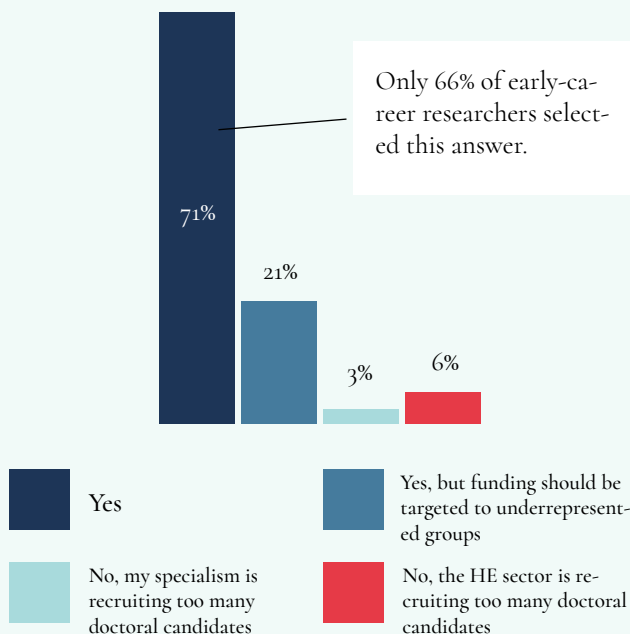


Fig 18. Doctoral funding: Access, distribution and future opportunities n= 3,435

Supervisory practice

Supervisory roles and responsibilities

In discussions, focus group participants described multiple aspects of the supervisory roles, and often pointed out that main, second and third supervisors support candidates across a number of areas interchangeably. The roles and responsibilities of each supervisor were more often dependent on the skill sets and personalities of the supervisors involved, rather than on institutional guidelines or policies.

“I think the term Director of Studies [or Principal Supervisor] comes with an expectation that that person will be doing more. But actually our recent regulations were updated this academic year, [after we] argued that the hours are divided equally across the team. So I wonder if the university expectations versus the student’s expectations are mismatched.”

Unaligned, Wales, Post-92

Despite this flexibility, the main supervisor role was considered to have the most distinct qualities, mainly surrounding responsibility for administrative elements, and navigating candidates through the red tape. They had the ultimate responsibility of helping to ensure that candidates knew procedures and policies and would meet their deadlines. Broadly, supervisory responsibilities were categorised in the following way:

Main supervisor

- Helping candidates to research independently.
- Understanding administration and overcoming university bureaucracy.

- Providing references.
- Guiding candidates towards training modules.

Across all supervisor types

- Pastoral care (inc. mental health and wellbeing, keeping up motivation, striking a good work/life balance).
- Research support (topic-related knowledge, support on findings, delivering specialist skills, pointing towards the right resources, advice on publication and copyright issues).
- Writing and referencing.
- Ensuring good research culture, ethics and integrity.
- Support on grants/funding and with visas.
- Career planning and support with applications (plus introductions to networks).
- Preparation for an academic career or one in industry.
- Skills support (e.g. confidence building, writing style, coaching for presentations).
- Decolonising the curriculum and ensuring inclusion and diversity.

Demands of supervision

“I constantly feel that I am being pulled in all directions and do not have time to do anything properly. It is not possible to do things quickly and properly where doctoral supervision is concerned - it requires higher level thinking and more nuanced interpersonal skills. It is a very close relationship and needs the investment required for such relationships!”

Anonymous

71% of respondents agreed that doctoral supervision had become more demanding over the last five years:

Do you agree that “Doctoral supervision has become more demanding over the past 5 years”

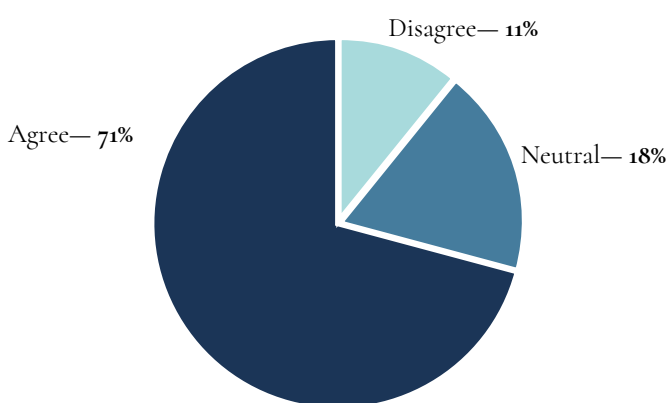


Fig 19. Demands of supervision n= 2,728

Those specialising in medicine & dentistry (71%) and biological sciences (69%) were significantly likely to agree with this statement, whereas physical sciences (48%) and engineering & technology (45%) specialists were unlikely to.

Time spent on research supervision

“The massive administrative pressure makes it difficult to just have the time in the week to block out to be with my candidates when there’s just so much crazy poking around from all corners of the university needing things to be done and getting an email box that never empties. This is the most annoying thing in academia and makes it a real strain.”

Anonymous

Respondents were asked: “On average, how much time do you spend supporting doctoral candidates individually per week?”. In the guidance to this question, respondents were encouraged to include not only formal meetings, but also “ad hoc meetings, emails, lab work etc.”.

The results for this question indicate that 45% spent 3+ hours per week in their capacity as ‘main’ or ‘principal’ supervisors (base n = 3,027). It is possible, however, that some respondents interpreted the question as asking for time spent “per candidate” while others answered in the aggregate. This ambiguity should be borne in mind when interpreting this finding.

Principal supervisors specialising in science and mathematics subjects were likely to spend more time supporting candidates per week (23% spent 5+ hours) than those specialising in AHSS (9% spent 5+ hours).

Early-career respondents were significantly more likely to spend more time with candidates per week, compared to mid- and late-career supervisors.

On average, supervisors spent 1-2 hours per week on candidates for whom there was a second supervisor (base n = 2,902), and less than an hour on candidates for whom they provided informal support (base n = 2,197).

On average, how much time do you spend supporting doctoral candidates individually per week?

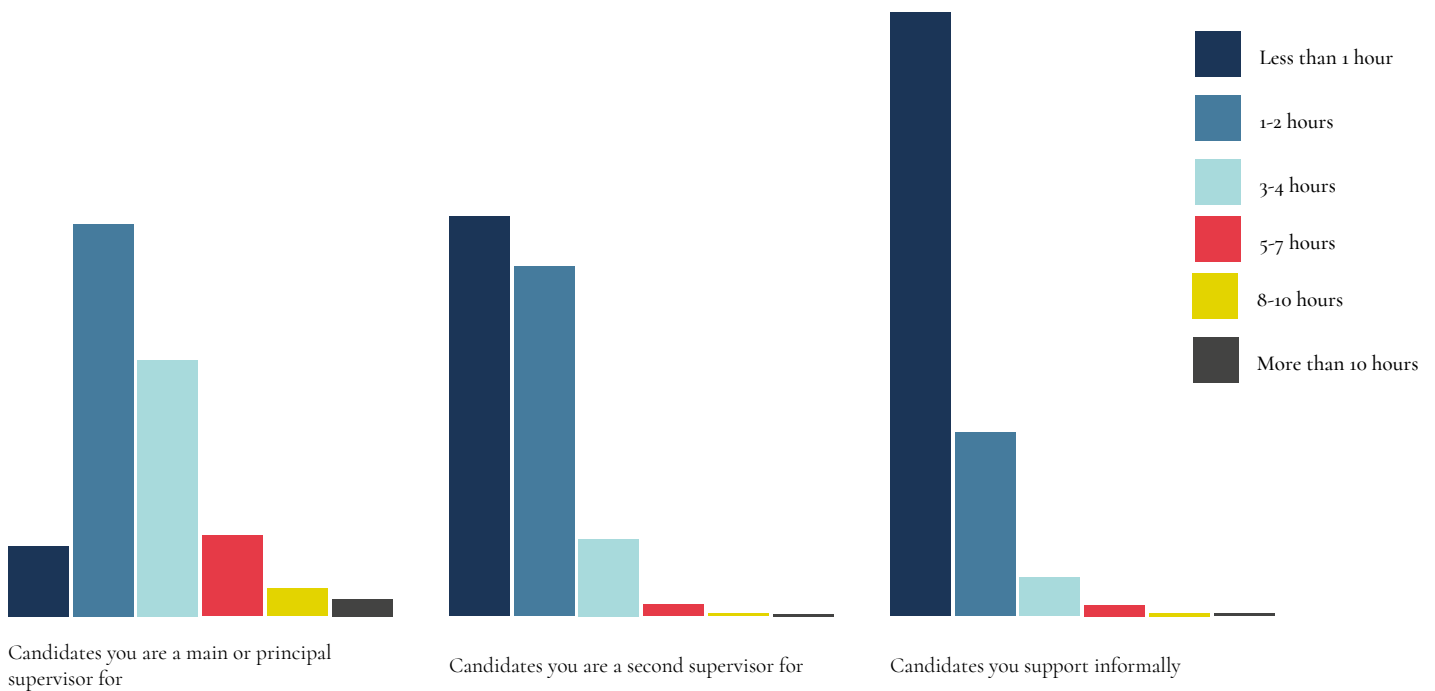


Fig 20. Time spent on research supervision

n= 3,435

Why have you taken over a candidate from another supervisor?

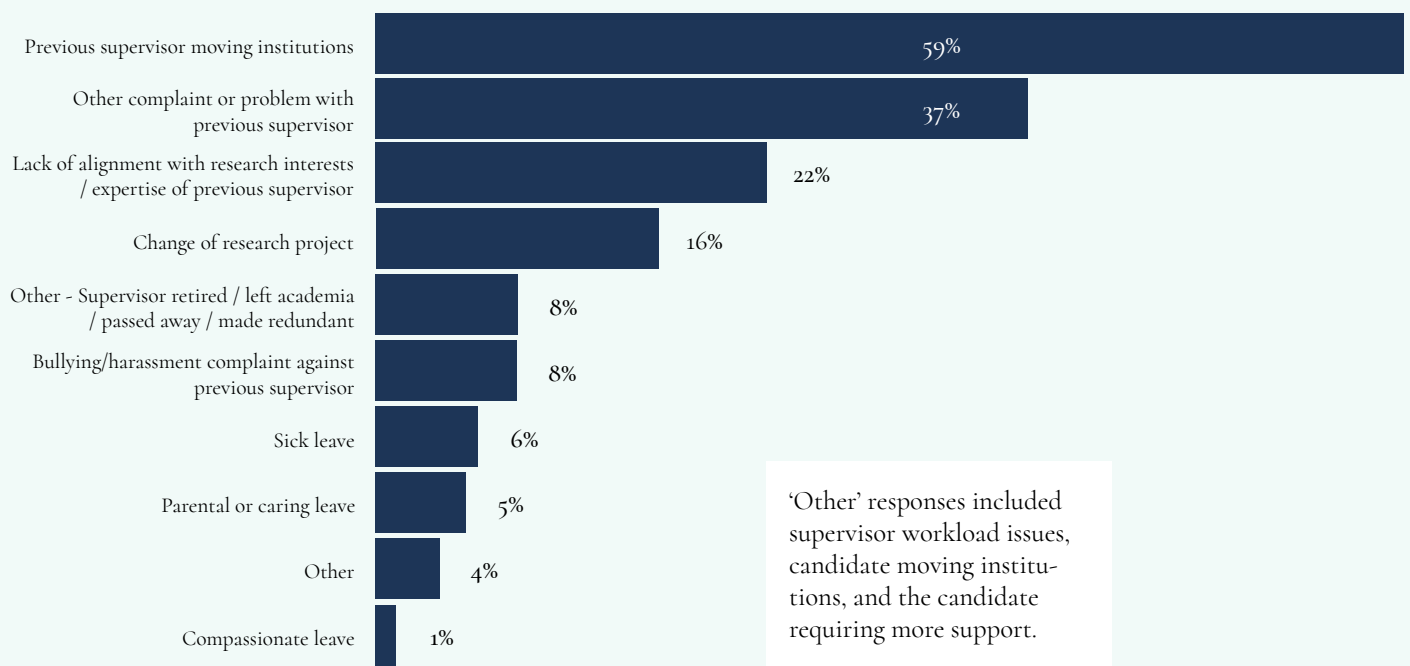


Fig 21. Rescue supervision

n= 2,022

Rescue supervision

Over half of respondents (59%) had taken on a doctoral candidate who was previously working with a different supervisor, increasing to 72% when looking at those in their late career. Respondents working in MillionPlus institutions were more likely to report having taken on candidates who had started with a different supervisor (74%), compared to those at a Russell Group institution (56%).

Respondents who had taken over a candidate from another supervisor were asked to explain the reasons for this (fig 21, base n = 2,022).

Over half (59%) suggested the previous supervisor had moved to a different institution, whereas 8% reported the supervisor had retired, left their role or passed away.

“I tend to be brought in as a ‘rescue’ supervisor when supervisory relationships have broken down. This means I am typically working with very upset and unsettled students who really need support to pull their projects around. I do manage to get them through, which is really pleasing, but it is a comparatively stressful role”.

Anonymous

8% suggested they had taken over supervision due to a bullying and/or harassment complaint, whereas 37% suggested another complaint or problem with the previous supervisor.

Team supervision

70% frequently or always took part in team supervision over the last five years. Only 6% of respondents had never taken part in team supervision. This was more likely to be the case for early-career supervisors (9%).

How often have you taken part in team supervision in the last 5 years?

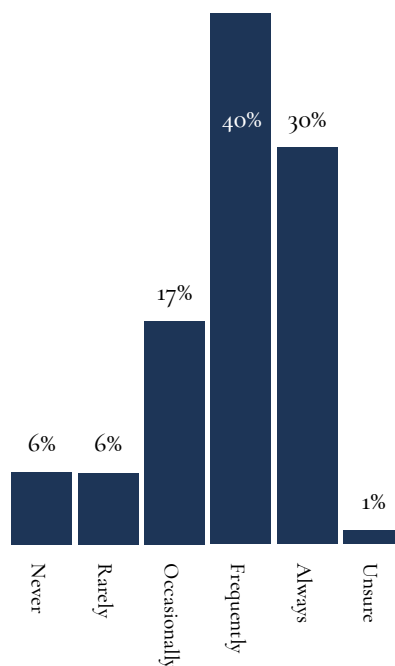


Fig 22. Team Supervision

n= 3,435

There appeared to be a correlation between number of current candidates and likelihood to take part in team supervision. Those who reported infrequent team supervision were likely to have fewer current candidates, whereas those who frequently or always took part in team supervision had more supervisees. It is an open question whether team supervision requires less time commitment for each supervisor involved.

Those based at Russell Group institutions were less likely to report frequently or always taking part in team supervision (67%), compared to MillionPlus (82%) and GuildHE (83%) respondents.

Those specialising in science and mathematics subjects were less likely to take part in team supervision, compared to other subject areas (16% “never” or

“rarely”). 82% of those in medical disciplines suggested they frequently or always took part, in addition to 82% of business specialists and 75% of those in AHSS.

Over half of respondents (59%) who had taken part in team supervision in the last five years suggested teams were likely to be made up of 2 supervisors, with 36% indicating three, and 5% saying team supervision involved four or more (base n = 3,206).

We asked respondents to indicate their level of agreement with the statement “Team supervision offers a better experience for the doctoral candidate”: 65% agreed that team supervision offers a better experience to candidates (fig 23).

To what extent do you agree with the following statement?

Team supervision offers a better experience for the doctoral candidate.

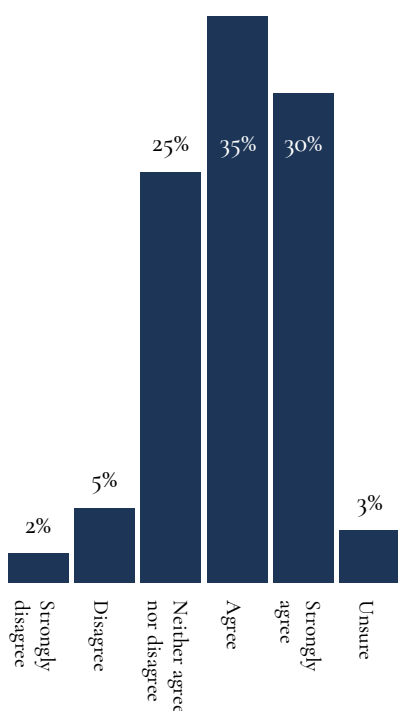


Fig 23. Team Supervision

n= 3,435

Only 7% disagreed that team supervision offers a better experience for the doctoral candidate, with 2% strongly disagreeing. Those who had never or rarely taken part in team supervision were significantly likely to disagree with the statement (19%).

Those in their early career were more likely to agree with this statement (70%) than those in their late career (64%). This may reflect increased confidence from those in their late career to undertake supervision alone.

Respondents were asked to explain their reasons for agreeing or disagreeing with this statement. Open responses (base n = 1,318) included offering the candidate a broader range of experience or expertise, as well as a diversity of perspectives – cited by 84% of those who agreed. Those who agreed also suggested it was useful for interdisciplinary research (11%) and that it offers ECRs opportunities to learn supervisory techniques from more senior supervisors (1%).

“Alternative perspectives within supervision teams, particularly at the beginning of a PhD, helps the candidate situate their study within the field and helps them to determine their own path and independence.”

Anonymous

“A team helps students hear different voices, opinions and perspectives. In particular it’s helpful if the team have different disciplinary backgrounds, as it helps students think across disciplines and become familiar with different theories, methodologies etc.”

Anonymous

Respondents who neither agreed nor disagreed with the statement suggested it was dependent on the makeup of the team, project or supervisor (87%). Reasons provided by those who disagreed with the statement included differing opinions being overwhelming for candidates (3%), candidates feeling

intimidated by large groups (3%) and one-to-one support being more beneficial (3%).

Several respondents pointed out that collaborating with co-supervisors and wider supervisory teams could help to reduce the burden on individual research supervisors. For example, one respondent said:

“[There is] no institutional culture in my department for shared care for candidates. I shouldn’t be solely responsible for their success/failure, so the university should pitch in more and take off some of the burden from supervisors.”

Anonymous

It should be noted, however, that some respondents also felt that working with co-supervisors can itself be challenging:

“Having a good co-supervisor is important - having a bad one is much worse than supervising alone.”

Anonymous

“In cases where I am the second supervisor, it is a major challenge if the main supervisor is lazy and does not fulfil their professional responsibilities for the student.”

Anonymous

Relationship with candidates

“It is the most meaningful and enjoyable relationship in academia.”

Anonymous

Feeling valued by candidates

Research supervisors overwhelmingly agree that research supervision is valued or highly valued by the doctoral candidates themselves (fig 24).

In your view, how much is research supervision valued by your candidates?

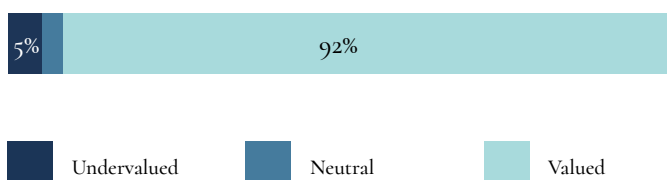


Fig 24. Feeling valued by candidates n= 3,435

Elsewhere, we asked whether respondents formally evaluate their supervisory practice with their candidates: 42% suggested that they did so, and these evaluations presumably validate at least some of the responses to the question of whether supervision is valued by candidates. The responses are further validated by the annual Advance HE Postgraduate Research Experience Survey which consistently shows that ~86% of their PGR respondents are satisfied with the supervision they receive (2020 = 87%).

Multi-faceted role

“The supervisory role has expanded exponentially through my career, with supervisor roles in terms of both pastoral support and levels of academic input increasingly prominent.”

Anonymous

A working hypothesis in conducting this survey was that research supervision has become more demanding and more complex over the last decade or so. As seen above, this hypothesis was largely borne out by the 72% respondents who felt that doctoral supervision had become more demanding even over the last five years (fig 19).

Among increasing responsibilities are a concern for the personal development and welfare of the doctoral candidate, including an increased focus on the mental health and wellbeing of the doctoral candidate. The UKRSS sought to understand how far those involved in research supervision accepted that these were core aspects of their role.

Professional development of doctoral candidates

There may be a widespread perception that research supervisors advise against doctoral candidates undertaking professional development opportunities on the grounds that this distracts from research activities. This was not borne out by the survey responses, in which 95% of respondents agreed that it was their role to highlight training, professional development and public engagement opportunities (fig 25).

Far from discouraging their doctoral candidates to undertake activities that ‘may distract’ from their doctoral research, this finding seems to indicate strong desire by those involved in research supervision to ensure that training and development opportunities are promoted and pursued.

It is my role to highlight training, professional development and public engagement opportunities

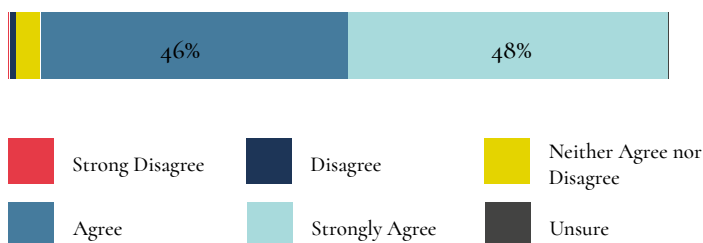


Fig 25. Professional development of doctoral candidates n= 3,435

Person-centred supervision

The responses to our questions about this topic elicited wide-ranging responses focusing on well-being, pastoral support and mental health. In future research we will seek to establish what the concept of ‘person-centred supervision’ in the broadest sense means to individual supervisors.

In this survey, in order to establish the extent to which those involved in research supervision prioritise doctoral research over doctoral candidates, we simply asked for agreement with the statement: “It is my role to supervise a person not a project”.

73% agreed with this statement, with 20% either ambivalent or unsure, and 7% in disagreement. It is, of course, reasonable as a principal investigator (PI) of

a large research grant involving doctoral candidates to consider that one’s role is first and foremost to supervise a project. It is also possible that those who disagreed or were ambivalent felt that completing the doctorate – getting the research project done – is a priority *both* for the project and for the person.

Nevertheless, the overwhelming agreement with this statement is a good indicator that person-centred research supervision is the norm in UK doctoral supervision.

A person-centred approach implies that a supervisor would have due regard for a candidate’s work-life balance. Here we assumed that respondents would accept that research supervisors are likely to be role-models for their doctoral candidates and asked for level of agreement with the statement: “I feel I should be a role model in terms of work/life balance to my doctoral candidate(s)”. 66% agreed, 21% were ambivalent or unsure, and the remainder (13%) disagreed.

It remains possible, likely even, that those who could not agree with this statement would nevertheless exhort their doctoral candidates to maintain a healthy work/life balance, even if they did not consider themselves role models in that regard. Exhortation, however, is no substitute for example.

Perhaps unsurprisingly, the number of respondents who felt it was their role to provide pastoral support (79%) broadly mirrors the number who consider it their role to supervise a person not a project (73%).

Equally consistent is the broad acceptance that it is the supervisor’s role to respond to mental health and wellbeing needs of the doctoral candidate (76%). 10% disagreed that this was part of their role, and 12% neither agreed nor disagreed, with the remainder unsure. There remains some ambiguity over what

exactly is meant by ‘respond to mental health and wellbeing needs’, but at the least it implies a responsibility to provide appropriate signposting to professional mental health and wellbeing services. It should be noted, however, that several open-text responses pointed out that this aspect of their supervisory role was a particular burden:

“Support for [candidates] mental health! Remove that burden from me and the worry would decrease by several orders of magnitude.”

Anonymous

“I don’t feel I have that much training in dealing with personal/life issues, mental health struggles, complex relationships etc.”

Anonymous

A small number of respondents did not accept that pastoral support was part of the role:

“I don’t enjoy having to deal with personal problems, mental health issues etc. I’m not qualified to do that yet academic staff seem to be expected to deal with these issues.”

Anonymous

To what extent do you agree or disagree with the following statements relating to your role as a doctoral supervisor?

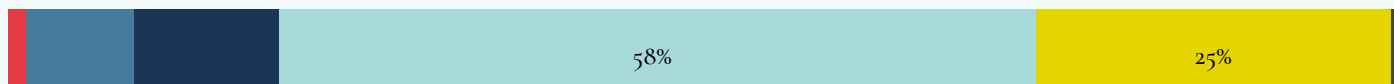
It is my role to supervise a person not a project



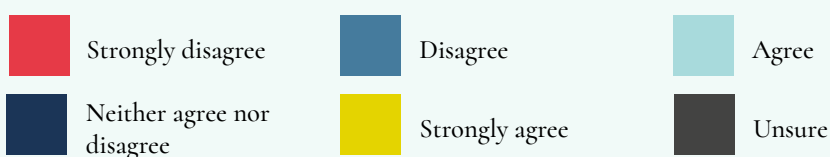
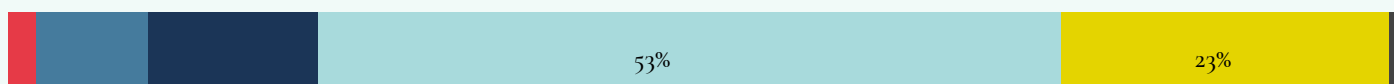
I feel I should be a role model in terms of work/life balance to my doctoral candidate(s)



It is my role to provide pastoral support



It is my role to respond to mental health and wellbeing needs



n= 3,435

Fig 26. Person-centred supervision

“[There should be greater] emphasis on the relationship as a ‘professional’ one, with responsibilities on both sides, and not including issues around ‘pastoral care’ and ‘wellbeing’.”

Anonymous

Some respondents also took the opportunity to explain what, in their view, were the pressures on doctoral candidates’ mental health and wellbeing:

“Having candidates better equipped to embark on a PhD would help. I find a lot of high-flying students have 1) been under considerable pressure for most of their life and 2) have been educated in a system where there is always a right answer and failure is bad etc. At PhD level, where failure is a big part of research, this is a toxic mix and some students do not deal well with this at all.”

Anonymous

“[I want] recognition by the university and funding bodies that managing mental health is a key part of PhD work, and that emphasis on publications, self-promotion, and going into an academic career (especially from day 1 of the PhD) can be seriously counterproductive for candidates’ morale and mental health.”

Anonymous

“Many funders (and universities) seem to assume that PhD candidates don’t have lives outside university, don’t have dependants, don’t get pregnant, don’t find themselves homeless, don’t get seriously ill.”

Anonymous

Respondents also drew attention to the challenges of managing several academic roles at once, while also providing effective supervision:

“[...] it would be helpful if students themselves would also become more aware of the challenges associated with wanting to adequately supervise students, the challenges of running a successful lab overall and the individual responsibility of the students. While in the past clearly supervision has often been highly inadequate and sometimes exploiting, students need to also realise their responsibilities and the complexities of the research environment that poses many diverse challenges to a supervisor who wants to be a “good” supervisor from all angles. More discussion and awareness around this would be appreciated.”

Anonymous

“[I need] more time to focus on research and my students’ needs. It’s easy to lower the quality of your interactions with the people in the lab or assume a “pushy” attitude when group leaders, and under such strain for funding, tenure timing, publishing...”

Anonymous

The challenges of actually delivering person-centred supervision notwithstanding, these findings show that doctoral supervision in the UK puts great emphasis on the role of supervisor in caring for and supporting the whole person as they undertake doctoral research. The notion that doctoral supervisors focus only on ‘the research’, to the exclusion of professional development or personal wellbeing is wrong. As one respondent put it:

“I’ve grown to realise that PhD supervision cannot be a purely professional relationship because the PhD is such a huge part of a doctoral candidate’s life (more so than work is for a postdoc or faculty member).”

Anonymous

Career guidance and support

Respondents took their role in providing advice on careers seriously, with 90% agreeing that it is their role to provide advice on pursuing academic careers. Nevertheless, several respondents pointed out that the academic career prospects of doctoral graduates are challenging and a cause for anxiety. A smaller majority, 65%, agreed that it was their role to provide advice on non-academic careers.

In light of this strong consensus on providing advice on academic careers (90%), it is notable that “it is my role to ensure that the doctoral candidate publishes in their field” received slightly less agreement (78%), given the dependence of academic careers on publishing. The overwhelming majority, however, agree that ensuring the candidate publishes is part of their role. For those who did not agree, it is possible that the word “ensure” was too strong, given the uncertainties of the peer-review publication process.

Relationship post-completion

“I see my research students as ‘future collaborators’, so building a strong effective relationship is important in helping them to succeed in both the short and longer terms.”

Anonymous

When applicable, 96% of supervisors reported they had written a reference for further research or employment in the last five years, with 77% suggesting they have done this frequently (base n = 2732-3147. Unsure (<1%) and N/A removed). 91% had met a candidate post-completion to guide their future career, but only 35% reported doing this frequently.

To what extent do you agree or disagree with the following statements relating to your role as a doctoral supervisor?

It is my role to provide advice on pursuing academic careers



It is my role to ensure my doctoral candidate(s) publish in their field



It is my role to provide advice on pursuing non-academic careers

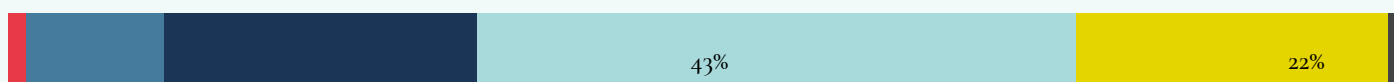


Fig 27. Career guidance and support

How frequently have the following occurred in the last 5 years?

Written a reference for further research/employment



Collaboration/co-authoring on your doctoral candidates' publications



Helping candidates to plan funding for them to complete work or to gain the publications necessary for their next career move



Meeting with your doctoral candidate(s) post-completion to guide their future career



Where candidates have not/rarely published during their studies, helping them to establish a post-doctorate publications plan

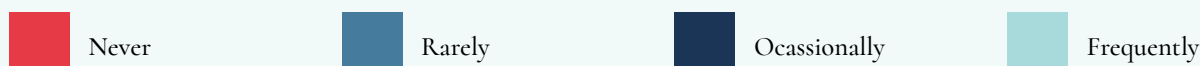
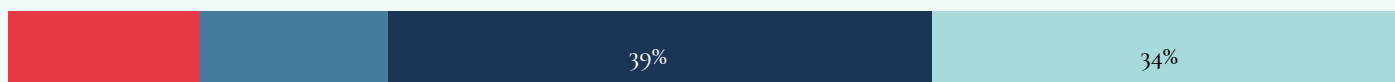


Fig 28. Relationship post-completion

n= 2732-3147. Unsure (<1%) and N/A removed

Overall, supervisors were least likely to have collaborated on their candidates' publications (15% had never). Nonetheless, 56% reported doing this frequently. Respondents who had collaborated were likely to be in their late career (59%), or specialising in science & mathematics (80%), engineering (75%) or medical (76%).

Gender

“Racism, sexism any ‘-ism’ works both ways. How do we know that the students we supervise know to recognise these behaviours in themselves?”

Anonymous

We did not ask a specific question about the ways in which gender may or may not affect supervisory practice or the relationship with the doctoral candidate. In the open-text responses and in the focus groups, however, several respondents took the opportunity to say that perceived gender roles had an impact on their role as a research supervisor. In one instance, this was a matter of being perceived as more approachable for pastoral support:

“I feel like I have excellent relationship with my students but, as a woman in engineering, they have a tendency to treat me as “mum” - which is not the most efficient for them or me. I think if they had some bias training at the beginning of their studies it might help.”

Anonymous

In another instance, a respondent observed that her role within a supervisor team had perhaps been determined by her gender:

“[I ended up...] doing more of the pastoral support and the main supervisor took more of a back seat on that. I’m also not sure if that was more of a gender issue as well and I kind of understood where the student was coming from, whereas the first supervisor, and I’m not saying this is because he was a man, but I think he was quite happy for me to take that role whereas he had more of that academic ‘You need to do this, this is what we need from you here’. So I think I certainly did more of the confidence building, the up-keeping motivation, but I also know that

that generally has fallen to colleagues who are the main supervisor, so that’s just my personal experience there.”

Social Sciences, Unaligned, South East, Post-92

A particularly troubling example came from a respondent who felt that the attitude of one of her candidates to women had undermined the supervisory relationship:

“...[a doctoral candidate] had very specific notions of gender difference and gender inequality who would not refer to me by name, would talk to the male supervisor if I said that ‘She said this’ and the male supervisor would correct him, ‘[Name of respondent] said’, ‘Yes she said’. So there were lots of power relations and gender issues that I had to contend with very early on. So I think it works both ways, the sort of managing your supervisor but also I could have probably done with a bit more training in terms of managing my students and the different, particularly international students, as well.”

Social Sciences, Unaligned, South East, Early Career

One respondent also pointed out that some aspects of the expectations of doctoral study are themselves gendered:

“[There are] gendered issues around people with children and mature students writing up: the current system offers a year “writing up time” and STRESSFUL appeals for those with atypical (i.e. not male and middle class) lives. In short, the system reflects masculine norms.”

Anonymous

Development and support

A supportive environment for research supervision

71% of respondents felt supported to enact good supervision and to address issues in practice. 17% neither agreed nor disagreed, and 12% disagreed (fig 29). The question did not specify where within the institution the respondent found support for their supervisory practice, although the context of the question may have led respondents to think of institutional support rather than informal support from peers and colleagues.

In some of the open-text responses, it was clear that there was a difference in levels of support from within a department as compared to central institutional provision:

To what extent do you agree or disagree with the following statement?

I feel supported to enact good supervision and address issues in practice

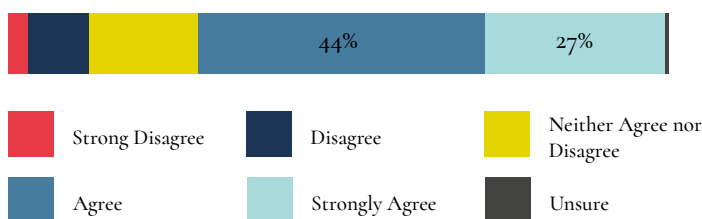


Fig 29. A supportive environment for research supervision n= 3,435

“We have outstanding support within my department but at higher levels it is ineffective, unresponsive, overly bureaucratic, passes on tiresome clerical roles to academics.”

Anonymous

Those in their early career were less likely to agree that they are supported to enact good supervision (67%), compared to those in their mid (70%) and late career (75%).

When compared to the sample overall, those who disagreed with feeling supported to enact good supervision in the workplace were more likely to be supervisors in an informal capacity (22%), and slightly more likely to be in their early career (15%), or an ethnic minority (14%).

Understanding institutional policies and procedures

95% of respondents indicated that they understand their institution’s procedures for monitoring candidate progress, with 91% agreeing they know how to enact these around candidate supervision. Those who self-classified as having an ‘academic role’ were more likely to agree with these statements, whereas postdoc, professional services and research support staff were less likely to.

84% agreed that they are aware of their institution’s policies and procedures in the event of a breakdown

in the supervisory relationship. There were a minority, however, who admitted that they were not aware of the institutional policies on supervision:

“[I should have] ...more awareness of my university’s policy on supervision - I didn’t realise how unsure I was about this until I took part in this survey!”

Anonymous

It should also be noted that there was an ambivalence about the need for policy and regulation in doctoral supervision, with several respondents finding ‘academic bureaucracy’ burdensome. Perhaps the most strident of these was the respondent who said:

“Remove the bureaucracy, all that damned paperwork and regulations! It is all unnecessary!”

Anonymous

Even a respondent whose job it was to help draft the regulations acknowledged that some colleagues may be cynical about the need for regulations:

“They don’t even know where to find those regulations. These days they’re all online. In a way it can be good because it means you never have a problem with any issue where you feel you need to check on the regulations or where you feel it’s a good idea. Some of my colleagues will be actively thinking it’s all a waste of time and we spend too much time writing this stuff. Yes. I disagree but maybe because of my job.”

Russell Group, South East, STEM, Mid-career

In our focus groups, we found that participants agreed that their institutions had policies in place regarding supervision. As many of those participating in our groups held senior roles, they had a good level

To what extent do you agree or disagree with the following statements relating to your role as a doctoral supervisor?

I understand my institution’s policies and procedures for monitoring candidate progress



I know how to enact my institution’s procedures surrounding supervision of candidates



I am aware of my institution’s policies and procedures in the event of breakdown in the supervisory relationship



Fig 30. Understanding institutional policies and procedures

of awareness surrounding these, but those working only in second supervisor positions (i.e. early-career supervisors), admitted that they were less familiar with the policies existing in their own organisations. Policies covered the following aspects of supervision:

- Expected supervision hours for each candidate.
- How PhD candidates need to be monitored.
- Information on paperwork and administrative aspects of the role, including submission procedures.
- Limits on number of candidates for each supervisor.
- Outlining different roles on a supervision team.
- Training opportunities and responsibilities.
- Appeal and counter appeal processes and regulations.

While having these policies in place was considered important, they didn't always work in practice. For example, due to short staff, sometimes a main supervisor could be less experienced than they are expected to be. As such, some suggested policies were treated more as guidelines with flexibility applied when needed.

It appeared that although these policies were expected to be institution-wide (and important to be so especially for those working across departments), an element of discrepancy was reported in how they were implemented by different departments. While the formal frameworks regarding supervision were the same, some of those in both social sciences and STEM explained that the way it was enacted was different across the disciplines (e.g. holding advisory panels at different points to that specified in the policy, having slightly different processes for upgrades, project reports and reviews), taking into account differences in methodology.

One respondent also highlighted how their university model leaned more towards science supervision, not taking into account the needs of the different subject areas:

“There is a great deal of discrepancy for us between humanities supervision and supervision in the sciences, and increasingly the broad university model that is being presented is based around research groups, based around labs, which I feel that we in the humanities are really falling behind. So I think that within that broader framework it's more on a divisional basis than based on a particular discipline that there is a lack of alignment.”

Arts & Humanities, Russell Group, South East, Early career

Institutional support for supervisory practice

In the survey questions, we further explored how adequate institutional support was in key areas of supervisory practice (fig 31 & 32).

84% of supervisors agreed that their workplace supported them with understanding policies for monitoring candidate success. This aligns with another result, which found that 95% agreed that they understood such policies (see fig 30). This perhaps indicates that this support had been helpful.

Supervisors were less likely to agree they were adequately supported when responding to candidates' mental health and wellbeing queries (56%).

This is concerning since, as noted earlier (fig 26), it was found that 78% believed it was their role to respond to mental health and wellbeing needs. This may suggest that many supervisors feel ill-equipped in this area, which is likely to have become increasingly pressing since the COVID-19 pandemic.

Those in their early career were significantly less likely to agree with all statements, compared to those in their late career.

49% of respondents agreed that they were supported with providing pastoral care to candidates, although 23% disagreed.

44% disagreed that they were supported with being a role model in terms of work/life balance. This may suggest that this proportion are struggling with their own work/life balance.

To what extent do you agree or disagree with the following statements about the support available to you from your workplace/institution: "My workplace/institution adequately supports me with..."

Understanding their policies and procedures for monitoring candidate progress



Understanding how to enact their procedures surrounding supervision of candidates



Highlighting training, professional development and public engagement opportunities to my doctoral candidate(s)



Understanding their policies and procedures in the event of breakdown in the supervisory relationship



Responding to mental health and wellbeing queries from my doctoral candidate(s)



Providing advice on pursuing academic careers to my doctoral candidate(s)



n= 3264-3383. 7-point scale, strongly and somewhat grouped. Unsure removed.

Fig 31. Institutional support for supervisory practice

To what extent do you agree or disagree with the following statements about the support available to you from your workplace/institution: "My workplace/institution adequately supports me with..."

Providing pastoral care to my doctoral candidate(s)



Providing advice on non-academic careers to my doctoral candidate(s)



Ensuring my doctoral candidate(s) publish within their field



Being a role model in terms of work/life balance to my doctoral candidates



Fig 32. Institutional support for supervisory practice

Supervisor induction training

85% reported that induction training was available at their workplace, with two thirds of respondents suggesting this is mandatory (66%). A further 12% were unsure of training availability.

While based on small sample sizes, those working outside academia were unlikely to have access to induction training – including those in healthcare settings (25%), government (43%) and industry (80%).

Provision of continuing professional development opportunities

Training also appeared to be less available to those identifying as research staff (6% reported no availability), professional services (18%) and technicians (33%).

When exploring provision or support for supervisor CPD, 7% reported this was not available at their workplace, whilst a further 19% reported they were unsure, suggesting this has not been used by these respondents (fig 34).

74% reported that CPD was provided at their workplace for research supervisors.

Is 'new supervisor' induction training available at your workplace/institution?

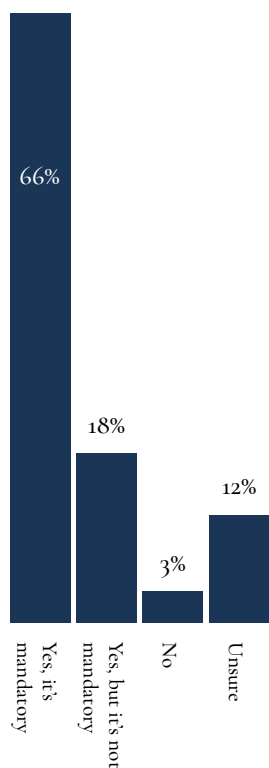


Fig 33. Supervisor induction training n= 3,435

29% suggested their CPD was mandatory. 58% of respondents suggested CPD was offered regularly, whilst 15% suggested this was on a one-off basis.

61% of respondents from specialist institutions reported that their workplace offered regular and mandatory CPD. Russell Group institutions were significantly less likely to provide regular, mandatory CPD (21%). However, 34% of Russell Group respondents suggested CPD was regularly offered but not mandatory. Interestingly, there were no major differences between training availability for different subject disciplines.

Focus group participants were provided with a list of potential supervisory training areas and asked

which their institutions provided. There was a mixed response, with none of the training areas offered for all respondents. The list below is in descending order of the training discussed by respondents, with the top two the only ones to feature frequently:

- How to monitor candidate progress.
- How to enact their procedures surrounding supervision of candidates.
- Signposting training and professional development.
- Pedagogy of supervision.
- Responding to mental health and wellbeing queries.
- The policy context of doctoral education in the UK.
- Supporting doctoral candidates to publish within their field.
- Providing career advice to candidates.

For those institutions with mandatory training in place, this often concentrated on the supervisory processes involved and how to monitor candidates' progress. In addition to induction training, some explained there would be refreshers every couple of years. Also, it was generally main supervisors who attended the training, with less on offer at some institutions for second supervisors, and very little for informal supervisors.

One respondent explained that the training occurred before you could be considered for a supervisory role, and that you were therefore trained before you were selected.

“For us, you are required to take certain training before you can supervise doctoral students if you want to be in the pool of doctoral supervisors you need to cover the training first, so it’s more the other way around.”

Arts & Humanities, Unaligned, Scotland, Mid-career

Does your workplace/institution provide or support research supervisors with continuing professional development (CPD)?

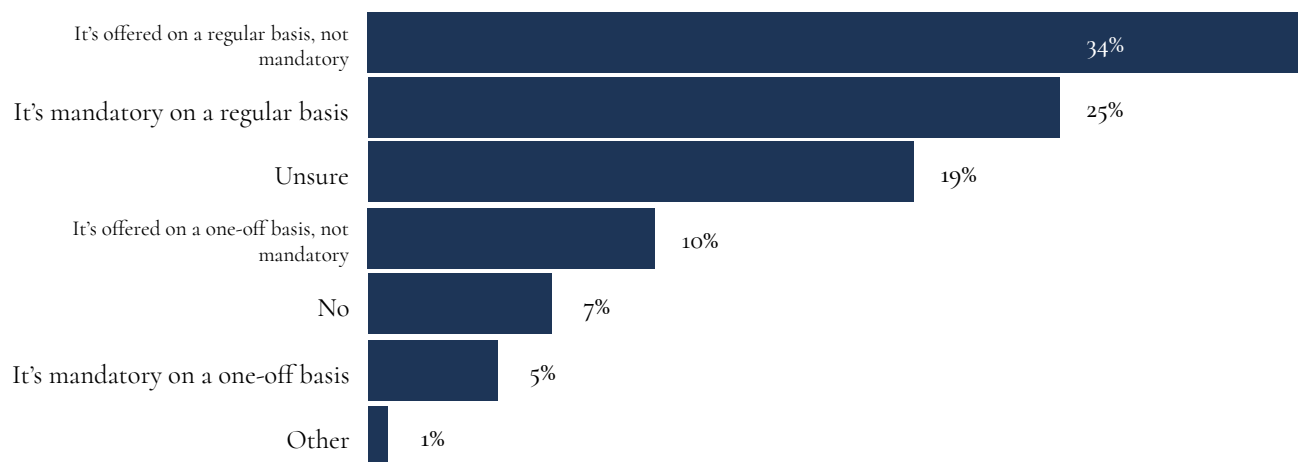


Fig 34. Provision of continuing professional development opportunities

n= 3,435

Compulsory equality, diversity and inclusion (EDI) training was offered on an institution-wide basis for many, although this was not always supervision-specific (with one participant saying this also included unconscious bias training). Mental health and well-being training, however, was often optional. Some participants argued this should be made mandatory, particularly in light of the impact COVID-19 has had on candidates and supervisors alike.

“Yeah there are two [mandatory training sessions], one is about the structures and the monitoring and one is more about the relationship type thing and being a supervisor. I would argue the mental health should be mandatory though. We delivered it for the first time this year and it’s all about signposting actually, what your role is and what your role isn’t and you shouldn’t be trying to do with it, but explaining where in the university you need to signpost and what pastoral care is.”

Social Sciences, Unaligned, Wales, Late Career

An early-career participant reported that training was not sufficient or available for them or others in a post-doc role. Nothing had been formally put in place as they were only supervising in a second or informal capacity, suggesting they were developing their skills from shadowing others.

“So I reckon none of the [training opportunities] apply. So I’m probably the only person who clicked that because I think allowing postdocs to be officially recognised as second supervisors was sort of an afterthought as a nice thing to do to claim they support our career development. And actually working out whether we get training to do it or other things was totally overlooked. It was just a way to advertise postdoc roles with you get officially recognised because where does the official recognition actually go.”

STEM, Unaligned, South West, Early career

Some participants acknowledged that they had experienced senior supervisors who had suggested that training was a waste of time and not necessary for them or newer supervisors:

[Respondent A]: “We know the rustic charm of HE is trying to get sometimes experienced professors to go on a training course that they think is a waste of time, it’s quite a challenge shall we say.”

[Respondent B]: “Why do you need training when you’re a professor?”

[Respondent A]: “There you go.”

Anonymous

These negative perceptions of available training are likely to cascade down to those newer to the role. From group discussions, it was clear that role models in supervisory practices were important and valued, sometimes more than formal training opportunities. Nevertheless, structured training remains important: without it, there is a possibility that new supervisors learn bad or outdated practices. Furthermore, 71% of respondents agreed that research supervision had become more demanding even over the last five years (see fig 19 above). New demands may require more insight than prior experiences can offer alone.

When exploring what incentives were in place to undertake training, focus group participants suggested they believed this would be considered in promotion considerations, although awareness of official policies was lacking. One respondent reported that undertaking training was considered to be the equivalent to a completed doctoral candidate, which was a criteria for promotion, and therefore helped to fast-track progression. Another participant reported it was a consideration in an HE research prize, acknowledging that funders and agencies were starting to establish the importance of training – more so than universities.

When exploring which kind of training was most useful for focus group participants, several mentioned that training around the administrative side of supervising had been beneficial.

“...we do have it all written out for us but an hour’s training a year is more useful to me than wading through our policy documents, which aren’t particularly straightforward to understand and which change every year or two as well.”

Anonymous

Getting to grips with the practical processes involved in supervision at institutions was considered key to the role:

“The most useful training for me was understanding what the different hoops to jump through are. I felt the rest of the training was useful to have and it reinforced things I knew, it maybe helped to guide me, but the thing I really needed to understand was what are the different forms that need to be filled in at different stages.”

Arts & Humanities, MillionPlus, North West, Mid-career

Supervising candidates from diverse backgrounds

87% felt confident in their skills to supervise candidates from diverse backgrounds. 93% of ethnic minority supervisors felt confident about their ability to supervise candidates from diverse backgrounds, while 100% of non-binary supervisors felt this way (although it should be noted only nine respondents identified as non-binary).

We further asked whether their workplace / institution “adequately supports me with acquiring the interpersonal / intercultural skills needed to supervise doctoral candidates from diverse backgrounds”. Respondents were evenly split, with a third disagreeing, a third agreeing and a third ‘neutral’. This suggests that the confidence felt by supervisors in supervising diverse candidates is not likely to be derived from formal training or support.

Focus group respondents revealed that support, training and development designed to help supervisors supervise candidates from diverse backgrounds was uneven, and in some cases, simply insufficient.

Training of this type most commonly took the form of generic online equality, diversity, and inclusion training, usually involving participants watching a video and being asked how they would react. These courses would often not be aimed at a specific workplace but would nevertheless be a mandatory tick-box for supervisors. One respondent noted that where they were more targeted to an academic audience, this was often to fulfil REF criteria.

Some respondents noted that this basic level of diversity training was topped up with further specific training, such as how to translate concepts non-linguistically and how to pronounce names from non-European languages, or with tactics such as matching the backgrounds of candidates with supervisors, where possible. However, these extra forms of training were not universal to the focus group respondents.

Most supervisors in the focus groups noted they had to draw on their lived experience when supervising candidates from backgrounds not matching their own.

Although 87% of survey respondents felt they had the skills to supervise candidates from diverse backgrounds, the focus group participants noted how this combination of basic mandatory training and lived experience was not nuanced enough for dealing with specific cultural differences in the supervisory relationship, for example:

“I don’t feel like I’ve received a huge amount of training at all to be a supervisor apart from a very provisional kind of starting out in research supervision. I think what I didn’t [realise] when I first started supervising was actually that PhD students can also be quite difficult... I could have probably done with a bit more training in terms of managing my students and the different, particularly international students, as well.”

Social Sciences, Unaligned, South East, Early Career

After prompting, a number recognised a lack of training on supervising diverse candidates – in regards to those from different cultural backgrounds. Others reiterated the importance of training related to pastoral care, suggesting current skills were developed via lived experience. Another participant mentioned that external training related to the pedagogy behind supervision had been incredibly useful, particularly when supporting diverse candidates:

“I think for me I also had to do my PGCAP Higher Education when I first started. So I think the two went hand in hand and it was really about understanding that one model doesn’t fit all in supervision. It was the pedagogy behind actually that more dynamic supervisory student role that changes based on different students and the level of support and the cultural back-

grounds of people. What works for one person might be completely wrong for another and I've had that experience with students from Thailand, for example, who have come over and then you get UK or European students or students from other areas.”

STEM, Russell Group, London, Mid-career

Enhancing supervisory practice

UK research supervisors are not passive in relation to developing their supervisory practices: 95% of research supervisors reported undertaking one or more activities to enhance their supervisory practice. Only

5% suggested they did not do any of the listed activities to support their practice, with 2% offering other approaches than those listed in the survey.

30% undertook ‘mandatory’ training provided by their institution, but a comparable 29% of the responses indicated a willingness to participate in ‘voluntary’ training.

By far the most popular method for enhancing supervisory practice was to discuss their role with colleagues. 73% of supervisors reported discussing their practice with colleagues to enhance their role (see fig 35).

Despite the scepticism expressed in one of the focus groups regarding the perceived value of regulations

Which of the following do you do to enhance your supervisory practice?

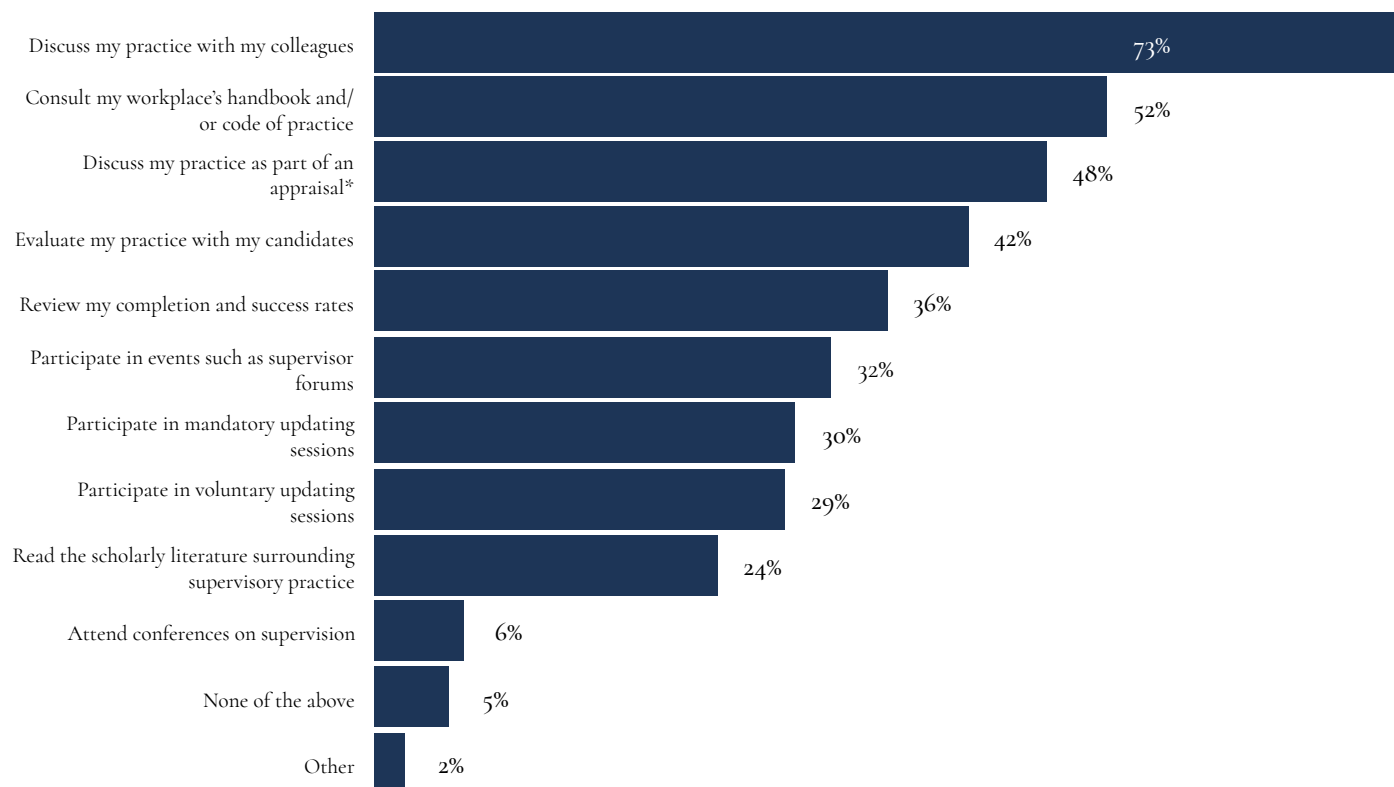


Fig 35. Enhancing supervisory practice

n= 3,435

and institutional policies, 52% of respondents reported that they consulted their workplace handbook or code of practice in order to enhance their supervisory practice.

A large minority (42%) of supervisors reported evaluating their practice with their candidates. The survey did not allow space to consider the ways in which these evaluations might have taken place, or whether such evaluations were a matter of institutional procedure or personal choice. It is, of course, possible that some of the 58% respondents who did not evaluate their practice ‘with their candidates’ would nonetheless take their doctoral candidate’s perspectives into account when evaluating their supervisory practice.

24% of the whole sample indicated that they would engage with the scholarly literature to enhance their practice. This increased for early-career supervisors (29%), although they were less likely to participate in supervisor forums (overall = 32% vs. early career = 26%).

A positive culture for doctoral supervision

“I think what I’m getting at is having the institutional recognition and being and having people recognise that this takes time and also having a culture of colleagues talking over lunch about supervision, that is a really healthy atmosphere and it is being viewed as a key part of research and a key part of teaching and what we’re doing.”

Russell Group, South East, Arts & Humanities, Early Career

Consistent with the 73% of survey respondents who enhanced their supervisory practice through discussion with colleagues, focus group participants also suggested that the most helpful ‘training’ they had

received was hearing first-hand experiences with other or more senior supervisors. Support from peers and colleagues was frequently mentioned throughout discussions, and these informal support networks were clearly in place at many institutions.

“Most useful for me was talking to people that are supervisors, so it’s actually that, rather than the formally delivered training [that is most useful]. The most useful thing was the relationships you built with other supervisors, discussions you had about either current or past supervision and that kind of building of collegiate sort of sense. That was actually crucial, without that I’d have crashed and burnt. The other stuff, the provided stuff by the institutions I could have lived without.”

Social Sciences, Unaligned, East Midlands, Late-career

How often does your workplace/institution provide the following?

Opportunities to learn from more experienced supervisors through role modelling or shared practice

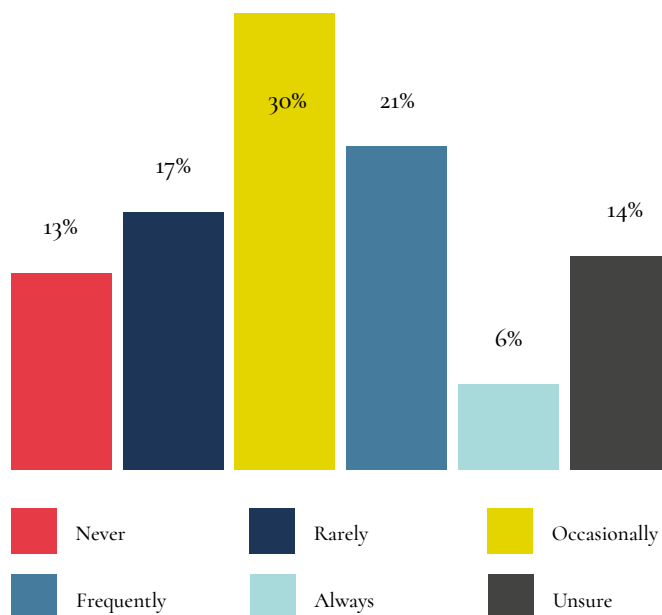


Fig 36. A positive culture for doctoral supervision n= 3,435

One respondent reported that their institution had put in place a ‘peer review’ process of other supervisory teams, where supervisors could see what others were doing to feedback on suggestions for improvements or to learn new ideas and practices which they thought worth replicating. This was considered useful to develop the mindset of even senior supervisors who may be more resistant to being trained or changing their approaches.

Other participants acknowledged the difficulty in reflecting on their supervisory practice and that it was best to have others as role models.

“It’s difficult sometimes to reflect because you’re trying to do your best. So I think personally I learn from observing others and for that being part of a bigger team can be quite useful both as main supervisor and second supervisor which in my situation is a requirement. You can’t have a

single supervisor. So I learn from being involved with other supervisors and also discussions with colleagues. If I have a problem with my student, how will you deal with this? That’s the sort of way of reflecting I guess.”

STEM, Russell Group, South East, Mid-career

According to the survey responses, however, only 27% indicated that their institution ‘always’ or ‘frequently’ provided opportunities to learn from more experienced supervisors through role modelling or shared practice. This rises to 56%, including respondents who have such opportunities ‘occasionally’, with 13% saying they never have such opportunities.

29% of respondents indicated that their institutions ‘always’ or ‘frequently’ provided opportunities for the mentoring of supervisors, rising to 55% including the respondents who said this happened occasionally (13% indicated that this never happened at their institution).

How often does your workplace/institution provide the following?

Opportunities for less-experienced supervisors to be part of a wider supervisory team

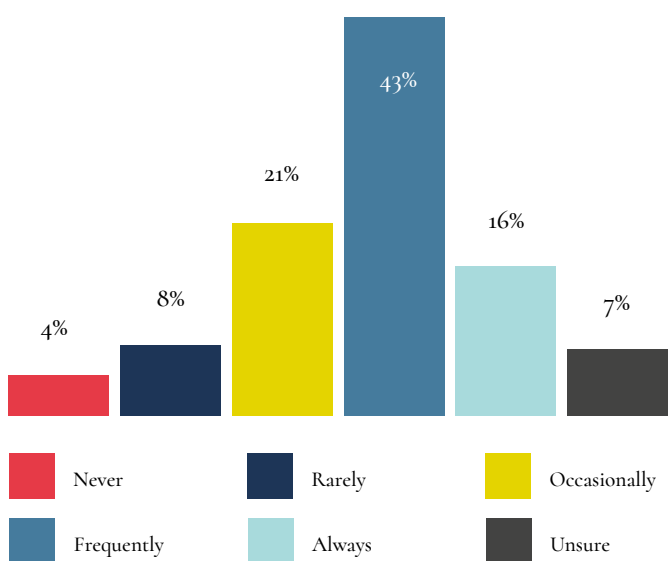


Fig 37. A positive culture for doctoral supervision n= 3,435

It was significantly more likely for supervisors to learn from one another through the use of supervisory teams: 60% of supervisors suggested their workplace frequently or always offered opportunities for less-experienced supervisors to be part of a team. This was especially likely to be the case for University Alliance institutions (77%), while less common for Russell Group institutions (57%) (fig 37).

The survey also explored whether research supervisors are given the opportunity to develop their own networks or support groups in order to enhance their supervisory practice. 47% of respondents said they were rarely or never provided with the time or space to create informal support groups. 25% indicated that this happened ‘occasionally’, with only 13% saying they ‘always’ or ‘frequently’ had such opportunities.

The consequences of not having a positive culture for research supervision can be damaging. As one respondent told us:

“Lack of support or interest from those colleagues not supervising PhD students makes it hard to get supervision recognised in our workload model or in the culture sometimes. The candidates detect this, and it makes them feel a lack of recognition and value (which Covid distancing reinforces). We had a better culture five years ago but after hiring a lot of new colleagues that culture has regressed.”

Anonymous

Reflecting on supervisory practice

Only 16% reported they were ‘always’ or ‘frequently’ given opportunities to reflect on their own supervisory practice, rising to 48% including those who ‘occasionally’ had an opportunity for reflection. Significantly, 37% also suggested they were ‘rarely’ or ‘never’ provided with opportunities to reflect on their own practice (this was even higher for Russell Group institutions: 39%). Several respondents used open text boxes to say that there was very little time to reflect on their supervisory practice, including one respondent who said:

“[It] would be nice to have some spaces to reflect on one’s supervision with colleagues but we never reflect on anything really, just work 65 hrs a week”

Anonymous

Workload, recognition and reward

Maximum number of doctoral candidates

A third of the sample (34%) were unsure of their institution’s policy around the number of candidates supervisors can supervise. When seen alongside the 18% who reported their institution had no such policy, and the 12% who reported their policy does not state a limit, this suggests that the number of candidates taken on by any one supervisor is either not made clear to supervisors or unregulated. Of the 36% who indicated that their institution had a defined policy, the largest proportion were those for whom 5-6 candidates were the maximum (18%, see fig 38).

Half of early-career respondents and half of supervisors who had yet to see a candidate to completion were unsure about the policy, suggesting institutions may not be making the policy clear enough to new

starters, which in turn would make it more difficult for inexperienced supervisors to ensure it is being adhered to.

Those supervising in maths and physical sciences were most likely to report that their institutional policy had no limit (30% and 28% respectively).

Ten of the 21 focus group participants reported their institutions having a policy on the maximum number of candidates a supervisor can supervise at any one time. However, several of the remaining participants suggested they were not certain:

“I actually don’t know and it’s not something I’ve had to deal with because I’ve not had more than I need to [...] I’m not sure if it’s based on workload and I’m not sure if there is an actual policy, if it’s based on individual management within the department and so that conversation that you have with your head of school, head of department or whether there is something actually written down...”

Social Sciences, Unaligned, South East, Early career

Those without a policy suggested some flexibility was in place to ensure supervisors’ workloads were balanced, and this was monitored at department level. Others suggested that even if a policy was in place, this wasn’t always adhered to, as it depended on how much experience a supervisor had (e.g. those with more experience could supervise more candidates) and whether candidates were being supervised by a larger team.

What is the maximum number of candidates a supervisor can supervise at any one time at your workplace?

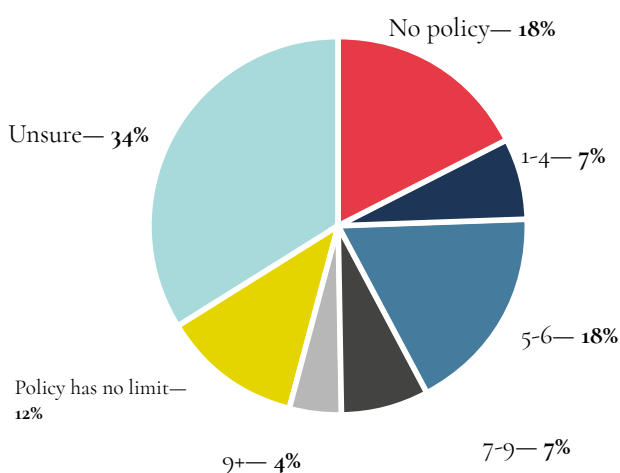


Fig 38. Maximum no. of doctoral candidates n= 3,435

In the survey, we subsequently asked a subset of 1,259 respondents who had or were aware of a policy, whether it was monitored. Only 28% reported that this number of candidates is always monitored (10% of the overall sample). 46% said that policy is not always adhered to, and 10% said it was not monitored at all. This left 17% unsure of whether the policy was monitored or not, which may itself indicate that it is rarely enforced.

Turning from institutional policies to individual preferences, we found that the majority (94%) of respondents did not want to supervise more than six candidates, when we asked ‘what is the optimal number of candidates per supervisor?’ There was an overwhelming preference for supervising fewer than seven candidates at any one time by supervisors, with most of these deeming 3-4 candidates the optimal number. Unsurprisingly, early-career researchers were more likely than mid- or late-career to select 1-2 candidates (24%) as the optimal number, and late-career researchers more likely than early or mid- to select 5-6 (23%). Interestingly, there were no significant differences as a result of supervisors being main, secondary, or informal supervisors.

Those working in specialist institutions were significantly more likely to choose fewer candidates, with 28% of them choosing 1-2 candidates as the optimal number.

Notably, despite the strong preference for 3-4 candidates (57%), this correlates with only 7% of responses which indicated institutional policy set a maximum of 1-4 candidates (NB: base n = 1,259).

For comparison, in prior questioning (see fig 7) 11% of respondents indicated that they were currently the ‘main’ or ‘principal’ supervisor for six or more candidates, with 32% supervising between 3-5. It should also be noted that 86% said that they were also a ‘second’ supervisor, of which 31% supervised three or more as a ‘second supervisor’. Additionally, 70% of respondents said they supervise candidates ‘informally’, of which 20% supervised three or more ‘informally’.

More research is required in order to understand fully the determinants of supervisory capacity, but it is certainly clear from the ‘open text’ responses (see further below) that many respondents would prefer more time to dedicate to supervision.

In your view, what is the optimal number of candidates per supervisor?

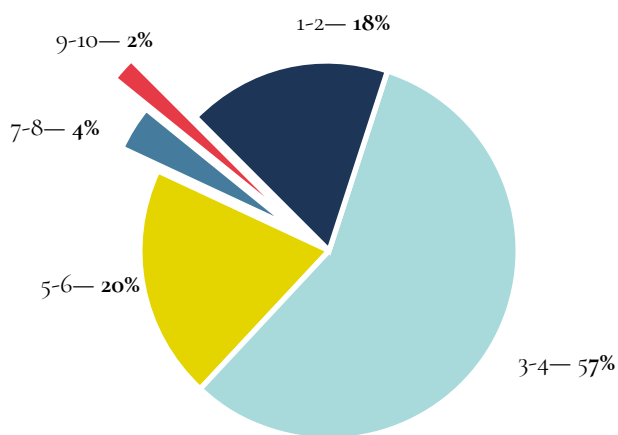


Fig 39. Maximum no. of doctoral candidates n= 3,435

The preference for 3-4 candidates was largely supported by discussions within the focus groups, with the most common response being four candidates. Optimal numbers were higher if supervisory teams were available, such that workload was distributed and manageable. Having 3-4 candidates who were focused on the same topic was also thought to be beneficial – providing them with a peer group to utilise for support and also to challenge one another.

Those who were part of supervisory teams suggested they had capacity to take on more candidates, as workloads were spread across a range of people. One respondent suggested a secondary supervisor usually undertook 25% of the workload compared to 75% for the main supervisor, such that there was usually no set limit for secondary supervisors. As noted above, however, there was considerable flexibility in the

allocation of roles within a supervisory team, with some respondents observing little difference between ‘primary’ or ‘secondary’ supervisors other than who takes administrative responsibility.

The focus groups also raised the point that discipline or research project workload were also thought to impact the allocation of doctoral candidates – although this was considered unofficial, rather than specifically outlined in policies.

One participant suggested that if a high number of candidates were all focused on a particular project, a supervisor could then take them on to “function just like a research lab”. This meant that supervisors would meet all candidates together, rather than one-on-one, to ensure their workload was manageable:

“I think it depends on the actual research project as well because although you have a supervisory team, a lot of my more science-focused colleagues are working in much bigger teams so their research is already spread across a bigger team, so the capacity then to supervise PhD students, they often have more of that capacity whereas I tend to work more individually, so then to try and juggle PhD supervision and my own roles and my admin role and everything else becomes that little bit more complicated.”

Social Sciences, Unaligned, South East, Early Career

Another participant outlined a policy that intersected with the maximum number of candidates a supervisor could take on, suggesting this caused structural blockages. This policy stated that supervisory teams could only be formed if the combined number of completions across the proposed team met a minimum threshold:

“If you don’t have enough staff with completions you can’t form teams. And the staff with com-

pletions are very in demand because they’ve got the completions and therefore can form teams and therefore they hit their max quite quickly.”

Arts & Humanities, Unaligned, London, Mid-career

Workload allocation for research supervision

We asked whether there was a formal workload allocation model which recognises research supervision. 52% of respondents indicated that research supervision was recognised within their workload allocation model, while 23% were unsure (fig 40).

Supervisors working for MillionPlus and post-1992 HEIs were more likely to have research supervision recognised in their workload allocation (74% and 69%). Russell Group institutions had the lowest formal recognition within workload allocation models, at 48%.

When asked in open questioning ‘what are your biggest challenges in supporting and motivating candidates to progress and thrive?’, 34% of respondents mentioned lack of time and high workload, with

Does your workplace/institution formally recognise your supervision of these candidates in your workload allocation?

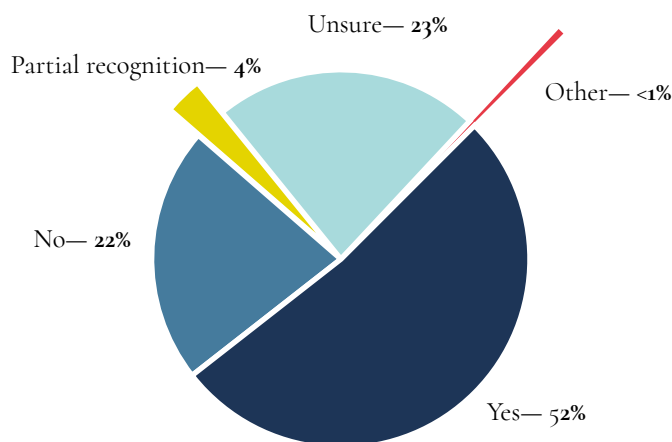


Fig 40. Workload allocation for research supervision n= 3,435

many singling out the lack of a workload allocation model for supervision as a particular frustration:

“We work on full economic recovery with overhead of 100%, yet only one of my students has been associated with any funding for my time, and we are encouraged to take on students as their completions count towards the REF. It should not be viewed as a vocational activity that you benefit from with papers etc., it should be fully economically accounted for (and time accounted for transparently, so it is clear how many hours we are working each week).”

Anonymous

“Proper acknowledgement within the workload model - I supervise in a STEM field in a small department where there is little technical support and no other academic colleagues, so I cannot pass off any of the work of methods training, trouble shooting etc. to anyone else, yet I get allocated hours on the assumption that once a month I read a few pages and have a little chat with my student.”

Anonymous

Supervisors who had indicated that there was a workload allocation model in place were subsequently asked how many hours were allocated by the workload model per year per candidate. The results were as follows:

- Main supervisor: 40 hours (Median) / 52.1 hours (Average) [base n = 1197].
- Second supervisor: 20 hours (Median) / 22.2 hours (Average) [base n = 1057].
- Informal supervisor: 0 hours (Median) / 6.6 hours (Average) [base n = 552].

It is difficult to draw any firm conclusions about whether supervisors are spending more time with

doctoral candidates than they are allocated. As reported earlier (see above):

- 46% of respondents were ‘main’ or ‘principal’ supervisors for 1-2 candidates.
- On average, respondents spent 3-4 hours per week supporting candidates for whom they were ‘main’ or ‘principal’ supervisors. (NB: there is an ambiguity over whether this question was answered in the aggregate or per candidate).

From these findings the following illustration is not unreasonable: a supervisor might have ‘main’ responsibility for two candidates; spend three hours per week on ‘main’ supervision in total (i.e. 1.5 hours per candidate); and undertake supervision across 40 working weeks per year. If these assumptions hold true, such a supervisor would spend 60 hours per year per candidate for which they were the ‘main’ supervisor. This is higher than both the median (40 hours) and the average time (52.1 hours) allocated in workload models according to those respondents for whom a workload allocation model was in place for ‘main’ supervisors (base n = 1,197).

Any illustration of this kind cannot do justice to the nuances between supervisory practices in different disciplines, and the amount of supervision required at different stages of the doctoral ‘lifecycle’. Nevertheless, it is clear that respondents felt that pressure of time was a frustration in their roles. For example, when we asked: ‘What one thing would make your role as a research supervisor better?’ 40% of responses mentioned ‘more time’, with a further 15% requesting a ‘reduced’ or ‘more balanced’ workload. One respondent said:

“The time allocation for supervision is 48 hours for the team, so a team of three could find themselves having 15 hours a year to read materials, have meetings etc. with doctoral researchers, which isn’t much. Having three supervisors in attendance at all meetings is fantastic for the

student but eats up hours especially when you have one meeting per month. So it is difficult to do extra things with candidates - for example, time out to write a second, third or fourth paper if it's not directly related to the creation of thesis chapters.”

Anonymous

Within focus groups, most participants agreed that their institutions had a policy around the time main supervisors in particular should spend supporting doctoral candidates. All agreed that they spent more time than that allocated to them, however, and that time spent differed across the year dependent on the activities of the candidate.

“I do more than is expected. I think our university has quite a generous expectation of time and it is expected that first and second supervisors will provide considerable amounts of time. There isn't any difference in what is expected of the first or second supervisor [...].”

Social Sciences, Unaligned, East Midlands, Mid-career

Not only were they holding formal supervision meetings, but further time was spent holding casual meetings and drop-in sessions. Additionally, they stated that time spent was very dependent on the candidates they were supervising – some required chasing up and motivating, while others required more pastoral and wellbeing support.

The focus groups also indicated that the number of hours allocated to the main supervisor fell between 25-60 hours per candidate per year, though it appeared less in the arts than in the sciences.

From discussion it was clear that the workload for the second supervisor had substantially less dedicated time, however few participants provided specifics. Those who did highlighted that it was very little, with two hours a week, 25 hours a year or ten hours a

semester at the higher end, and half an hour a week (or less) for others.

A small number of respondents said workload allocations were split more evenly between the supervisory team, irrespective of who was designated the ‘main’ supervisor. For example, a team might be allocated 120 hours a year for a full-time candidate, and 60 hours for a part-time, which would be split evenly and monitored by institutional software. Monitoring systems, however, had mixed reviews:

“We have very complicated online supervision and progress monitoring systems that are very difficult to use. Probably designed by people looking to fill their time.”

Anonymous

“Scrap the admin, forms, monitoring! It does not work as failure is detected too late and poorly remedied; it is simply designed to protect the university instead of helping students and mostly wastes their and my time.”

Anonymous

“[...] We have got a fascistic software that makes you record the amount of time that you spend with people so that they can ensure that that is provided. However at [my institution] there is also a very strong emphasis on social mobility and we have quite a lot of students who come in who are quite vulnerable in some ways and that emotional baggage or that emotional work actually takes quite a long time.”

Social Sciences, Unaligned, East Midlands, Mid-career

One post-doc respondent made the troubling observation that there is a difference between post-docs who are second supervisors and members of permanent staff who are second supervisors:

“Our university is trying to push a lot more for second supervisors to be more actively involved. One thing they did was allow post-docs to be supervisors because post-docs end up doing quite a lot of supervisory roles.

So I’ve been second supervisor on two PhD students’ work for quite a long time and I meet each of them at least twice a week and do a lot of the research guidance and other things while my supervisor was tied up with other things.

Under the new push to make second supervisors more actively involved they’ve had to downgrade the percentage I’m officially on [the supervisory team]. So someone who’s permanent staff as second supervisor could be more importantly involved on paper even if they’re not actually as involved, which is interesting.”

STEM, Unaligned, South West, Early career

The notion that post-docs “compensate” for supervisory deficits due to time pressures also came up in some of the open responses to survey questions:

“[I need]... more time to devote to individuals; however, this is compensated by a very effective team of postdoctoral staff who collaborate on supervision.”

Anonymous

“Postdoctoral supervision of doctoral students [should] be valued and recognised by institutions, especially in the search for academic positions or fellowships.”

Anonymous

“[We need] recognition and status for supervision as a post-doc.”

Anonymous

In the focus groups, participants were likely to suggest that their workload models contributed to them feeling undervalued by their institutions, with the time allocated not considered sufficient. There was a consensus that more time for supervising candidates would be the best ‘reward’ for their role, such that they could spend more time ensuring they are able to do their best.

“I think it is very undervalued in terms of how it’s counted into the workload model, the extent of effort that each student requires is just not counted enough as part of the work that you are expected to do per year and that actually undervalues the work that you do. So it’s kind of valued in words but not in actual practice. [...] That is really the value that we value most I think - the freedom to even spend more time with our students if we have the time, but we don’t.”

Arts & Humanities, Unaligned, Scotland, Mid-career

In your view, how much is research supervision valued by...

Your workplace / institution?



You?



Fig 41. Reward and satisfaction

Reward and satisfaction

Doctoral supervision is hugely valued by supervisors, with 93% valuing the role. When asked how much research supervision is valued by your workplace / institution, however, this drops to 52%, with 40% indicating that research supervision is undervalued by their institution and 8% neutral.

Crosschecking the 40% who felt their institution undervalued their supervision with other factors may clarify why they felt this. Of this group:

- 76% felt that doctoral supervision has become more demanding in the last five years (as against 71% of overall respondents to this question [base n = 2,728]).
- 61% disagreed that their institution adequately supports them in terms of being a work/life balance role model for their candidates (as against 44% of the overall sample).
- 24% disagreed that they felt supported to enact good supervision and address issues in practice (compared to 12% of the overall sample who felt this way).

As such, this group may feel institutions are not recognising their demanding workload or supporting them sufficiently in a way that makes them feel valued.

Promotions and supervisory performance

53% reported that their institution takes their supervisory roles and responsibilities into account when assessing promotions, however 29% were unsure and 17% said research supervision was not taken into account in their promotions criteria. 80% of those at Russell Group institutions and 66% of those at post-1992 institutions reported that their institutions consider supervisions on promotion criteria.

We further asked what kinds of criteria were used in assessing supervisory performance (base n = 1,834). Of these responses, by far the most popular was ‘number of successful completions’ (86%). 62% indicated that ‘number of current candidates’ was a promotion criterion, with only 20% indicating that a

What criteria are used in assessing supervisory performance?

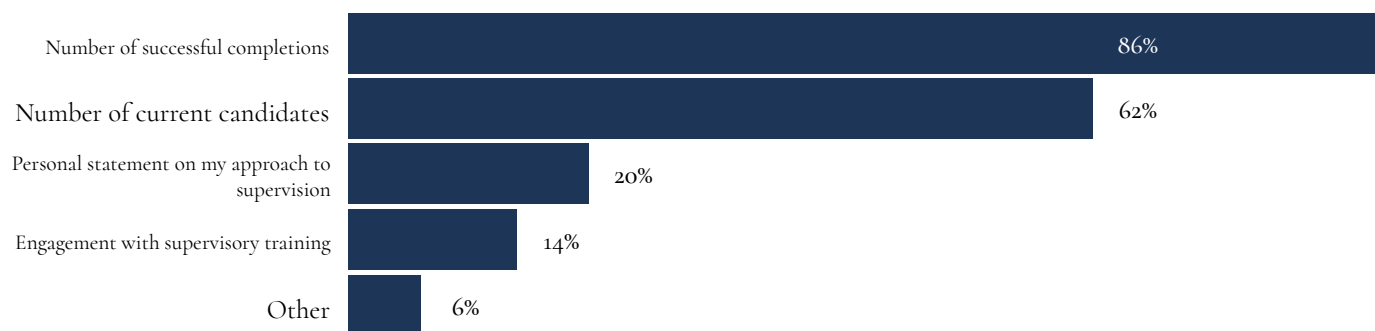


Fig 42. Promotions and supervisory performance

n= 1,834

personal statement relating to supervision was taken into account.

Post-1992 respondents were slightly more likely to consider the number of successful completions (89% versus Russell Group 83%), whereas Russell Group respondents were more likely to consider the number of current candidates (Russell Group 66%; Post-1992: 50%). One respondent referred to the directly:

“We are measured in promotion by ‘Russell Group Average’ over six years (which is high for my subject), so there is a tendency to over-commit. I would prefer a model where quality is recognised over quantity, subject areas, candidate characteristics etc. and good supervision rewarded and poor supervision monitored to improve support for struggling students/ supervisors.”

Anonymous

Only 14% reported that engagement with training is considered in promotions criteria, suggesting there is little incentive for supervisors to take part in development activities. Worryingly, this emphasis

may lead supervisors to feel that taking on increased numbers of candidates is the only path to promotion.

Although 53% indicated that supervision was considered in promotions, some open-text responses explained that the relative weighting of research supervision was still small in comparison to other aspects of academic performance:

“My department values grant income and high-impact publications and case studies for REF first and foremost. Supervising PhD students and teaching is not valued as much. It helps you keep your job, but will not count much towards promotion. If being a successful PhD supervisor was much more important for REF returns, then things would change.”

Anonymous

Awards for supervision

28% of respondents indicated that their institution offered awards for 'excellent supervision', with 25% unsure and 47% reporting that their institutions do not offer awards for excellent supervision. 44% of those at Russell Group institutions and 24% of those at post-1992 institutions reported that their institution offered awards for supervision. Several respondents mentioned awards for research supervision in their open responses. It was noted that institutional awards were helpful in raising awareness about doctoral study which may otherwise be 'ignored':

“Our institution this year has introduced awards for students to vote to recognise good supervision because there is a recognition that the undergrads have had that for many years and doctoral students and research degrees seem to be ignored in that sense.”

Anonymous

Some were sceptical of the value of institutional awards for supervision, however:

“[I would prefer to have] my work more formally recognised. NOT with awards (this seems to me really a British fixation, most foreign staff finds awards silly and/or extremely patronising - though we don't necessarily say it out loud, since the locals seem so attached to them for some reason), but with a workload and progression model that acknowledges the effort and importance of supervisory work.”

Anonymous

““Awards” for good supervision only reward one “winner” per year etc - they don't drive good practice among the many.”

Anonymous

Motivations and challenges

What motivates research supervisors

An overwhelming majority of respondents (91%) reported that they enjoy supervision. This suggests it is seen as a valuable and respected vocation, despite concerns around how it is carried out and supported by institutions.

The success of the next generation of researchers was the key motivation for supervisors. In open responses, respondents overwhelmingly (72%) felt that the main motivational factor behind their supervisory practice was the desire to engage with and develop the next generation of scientists and researchers in their field (with a further 14% mentioning their own 'pride' in seeing doctoral candidates succeed). This was consistently the most cited factor across career stages, institution types, subject areas and demographics.

“A doctorate is a huge undertaking, both as a professional and personal endeavour for which PGRs need effective support and supervision in order to be successful. As supervisors we have the opportunity to make or break a student, and it's crucial that we value our students and give them the best learning and life experience we possibly can.”

Anonymous

Even factors that may appear negative towards the practice of supervision, such as 'part of the job' or 'obligation' were seldom about deriding supervision as dull or a burden, and usually linked back to a vocational desire to train young researchers and keep their discipline fresh and sustained.

Among those who were motivated by the intrinsic reward of seeing new researchers succeed, there were a notable number of 'wounded' supervisors who, having had poor supervision themselves, were motivated to do better for the next generation. Several of these responses are reproduced below in order to illustrate the importance of the supervisor's own experience of being supervised, but also to serve as a reminder of the enormous importance of the supervisor in supporting the wellbeing of doctoral candidates:

“...having had a poor research supervisor myself, and knowing the importance of initial doctoral training in setting the pattern for a research career.”

Anonymous

“I experienced poor supervision as a doctoral candidate and have seen lots of bad practice, so I want to ensure others have a positive experience.”

Anonymous

“My poor experiences as a PhD candidate: I reflect on this, and other situations where I have not been supported or unfairly treated during my career. I try to do better in areas that others have failed me, and to provide candidates with the resilience, confidence, and awareness of pitfalls to enable them to negotiate their PhD successfully and acquire skills that will benefit them in their future career.”

Anonymous

“I had very poor supervision as a PhD student, and I don’t want anyone to go through what I experienced. These are people who are just starting out in life, and I want to get them on the right track.”

Anonymous

“Not wanting candidates to have the same poor supervisory experience and resultant stresses and career difficulties that I have experienced.”

Anonymous

“I personally had a very poor supervisor... and I don’t want any student of mine to go through that and its long-term consequences.”

Anonymous

“I want to try and give future scientists an easier ride that leaves them with less trauma compared to my own experience, I want to detoxify academia.”

Anonymous

“I know from my own and others’ experiences how destructive poor supervision can be. I have friends who I think have been literally traumatised by abusive supervisory relationships. I value being a supportive and informed supervisor who stretches and supports candidates appropriately.”

Anonymous

Within the focus groups, supervisors were likely to suggest they derived satisfaction from their role by seeing candidates succeed. ‘Intrinsic’ value was likely to trump any rewards or promotions offered, such that their personal sense of achievement was core to motivating them to be a good supervisor.

Several indicated that their candidates were likely to recognise the work their supervisors had put into the

role, including the emotional labour. This was clearly appreciated. Candidates’ publications were seen as a good measure of success. One supervisor had stayed in touch with their candidates, and was still reaping pride in seeing them achieve a successful career.

“I think it is just personal reward and being able to see those students. I’m getting to a stage now where my first PhD student has gone and got herself a lecturer post. So that ongoing pride in seeing them develop their career and having that of course interaction with them that you will keep in touch and see their career develop.”

STEM, Russell Group, London, Mid-career

Extrinsic rewards were in place, including within promotion criteria and scaffolded career progression, for example, from lecturer, senior lecturer, reader, to professor. Awards were also in place at some participants’ institutions, which were either rewarded within faculties or voted for by candidates (see above).

Research supervision improves research

82% of respondents agreed that “being a research supervisor improves the quality of my own research”. 12% were neutral and 6% disagreed. We explored this further in focus groups and were often told that doctoral candidates help to ‘expand’ the knowledge and skills of research supervisors themselves:

“Testing out new research methods, finding out about new stats, reading, working with other people, I mean I think there’s loads, there’s a load of theoretical, practical, empirical, personal skills that you get out of each student. And all of my students have been quite different I have to say and they’ve all done very different things. I have definitely expanded my knowledge.”

Arts & Humanities, Unaligned, East Midlands, Post-92, Mid-career

At a more practical level, we were also told that doctoral candidates are critical in getting the research done in order to generate the data ‘to get the next grant’:

“More and more now PhD students are the life-blood of laboratories. Funding is limited. Post-docs are very expensive. PhD students, you have the people who reward you by doing great work and generating the data you need for the next grant. So it’s more of an in-house reward.”

STEM, Russell Group, London, Mid-career

Among those who felt that research supervision does not improve their own research, two themes emerged:

- That they were undertaking too much research supervision as compared to their own research.
- That they were supervising outside their area of expertise:

“Maybe it’s just that I have too many at the moment, so I feel like no sooner do I clear one student’s demands and think I’ve got time to do my own stuff then someone else’s urgent demands ping into my inbox but I find that they’re not necessarily looking at the same topic with the same focus as the research that I’m doing ...so I don’t feel that it necessarily helps me although it does help me think about the clarity of what I’m arguing because I’m picking them up on consistency and all of that so it helps me think about my own work from that perspective, but generally not from a very subject perspective no.”

Arts & Humanities, Russell Group, Yorkshire and the Humber, Mid-career

Nevertheless the overwhelming majority agreed that research supervision improves research. One

respondent took this further by insisting, conversely, that good research entails effective supervision:

“You can’t do good research without being an effective supervisor.”

Anonymous

Key challenges

When asked ‘what are your biggest challenges in supporting and motivating candidates to progress and thrive?’ around a third (34%) of respondents cited their lack of time to commit to supervision, usually due to an already high workload. Those who felt their supervision was undervalued by their institution were more likely to report a lack of time and high workload (39%) than those who felt valued (30%).

Those supervising at specialist institutions were much more likely to report candidate issues with funding as a challenge (28%) than pre-1992 institutions (10%) and post-1992 institutions (6%), possibly due to funding for programmes at these institutions being more complex to secure.

GuildHE institutions were more likely to report candidate lack of time as a challenge (25%) than those from within other mission groups.

Those supervising in Russell Group institutions were more likely than those within other mission group institutions to report candidate mental health as a challenge (18%).

We also asked: ‘what one thing would make your role as a research supervisor better?’. Answers to this question corroborated the earlier finding that high workload and not enough time were the biggest challenges for supervisors: 40% said ‘more time’ was the ‘one thing’ desired most by supervisors to make their role better, and an additional 15% mentioned

What are your biggest challenges in supporting and motivating candidates to progress and thrive?

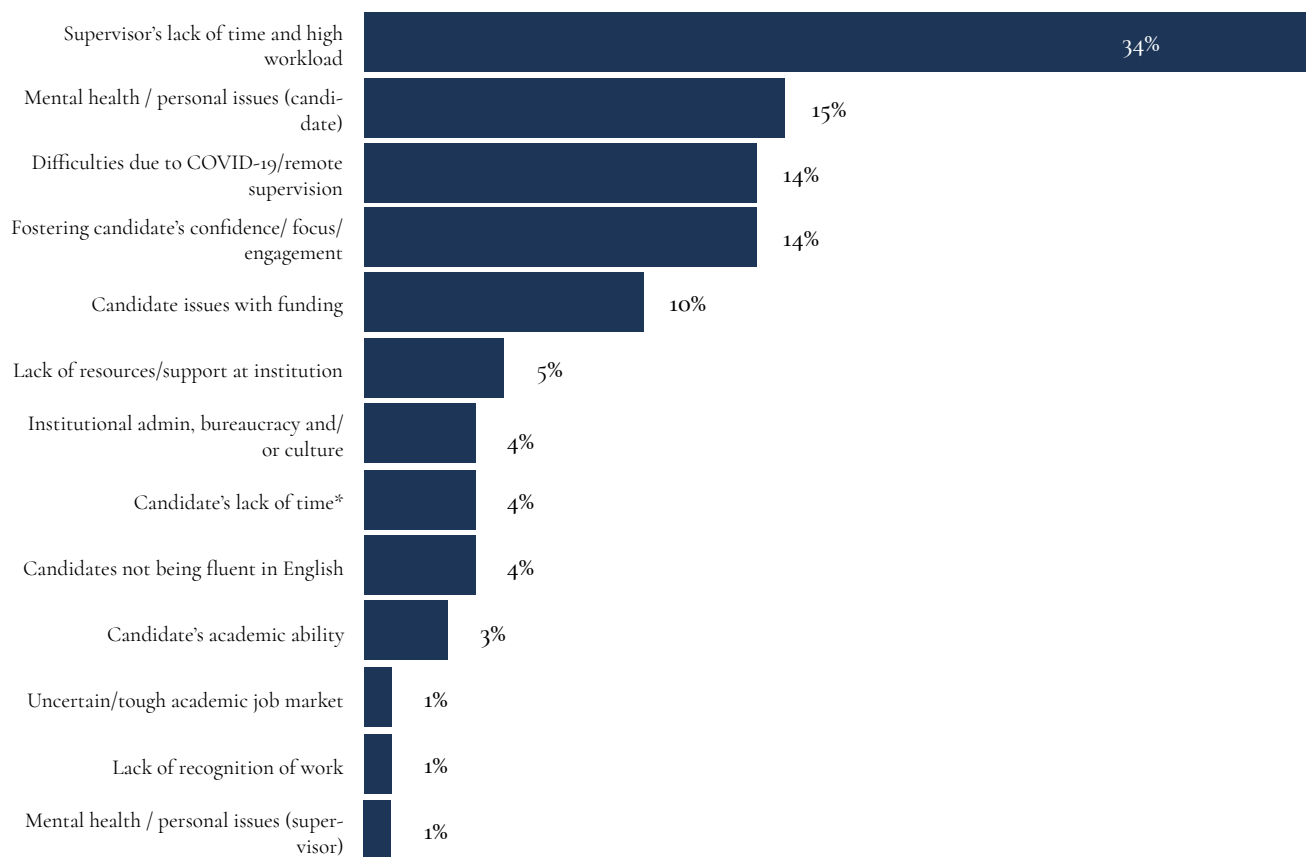


Fig 43. Key challenges

n= 1,405

reduced or more balanced workload:

“[I would like to have] less workload pressure, so that I actually have time to think and properly prepare for supervision. Good PhD supervision is a joint enterprise, actively participating in the research so that students learn from seeing research being done (while of course leaving the student with tasks to complete for themselves). The ridiculous teaching workloads everyone has at the moment are a serious bar to that ideal.”

Anonymous

However, early-career respondents were much less likely to suggest ‘more time’, with only 26% suggesting this versus the 43% and 42% respectively by mid- and late-career supervisors. This early-career group was much more likely to request greater CPD and training, with 17% asking for it versus 5% and 3% respectively of mid- and late career supervisors. This may be due to early-career supervisors supervising fewer candidates – suggesting that help offered to supervisors should be tailored to career stage, as needs change with experience.

In line with top responses from the survey, focus group participants were likely to indicate that more time was the thing that would make their role as a research supervisor better. Throughout the groups, it was clear that supervisors struggled to fulfil their roles – at least to a level they were personally satisfied with – in the limited time provided within workload models. Respondents were clearly passionate about supervising to the best of their ability, but they found it difficult to do so with other competing tasks. Others wanted the time they put into supervision to be appropriately recognised – in both workload models and extrinsic rewards.

“I would say protected time. So a greater appreciation that those with a higher supervisory role should be able to minimise other roles, though often that’s not the case with teaching and things, so you can have that quality interaction.”

STEM, Russell Group, London, Mid-career

Several focus group participants touched on improvements being made to research culture that would help to make their role better. This included an increase in teamwork and building a supportive environment for both supervisors and candidates.

“I would like us to be less siloed and less alone in our supervision and more together and work more as a team in my own department... Also be less formal with the students, it’s not just about training, everyone is looking at formal training, let’s just go out for lunch or to the pub and talk to each other like people rather than like employees all the time. There needs to be more informal connections between supervisors and supervisees because that is such a big part of being an academic. I’ve had that richness in my own experience and I don’t see it here and I think students are really missing out.”

Arts & Humanities, Unaligned, Scotland, Mid-career

In line with the 13% of survey respondents who mentioned increased funding, one participant believed making this more accessible would be particularly beneficial in supporting diversity amongst candidates, by increasing access for those from disadvantaged backgrounds.

“The one thing I would actually say is easy or easier access to university or external funding streams because actually funding is a massive source of uncertainty for students, it’s a source of stress, it’s the thing that holds them up, it causes them problems. [...] I think that is the key to getting people from disadvantaged backgrounds into the university, it’s the key for diversifying, we’ve got to provide that kind of support.”

Arts & Humanities, Unaligned, London, Mid-career

Wellbeing of supervisors

32% agreed that over the last 12 months ‘concerns over supervision have kept me awake at night’, with 55% disagreeing. 31% agreed that ‘supervising doctoral candidates makes me feel anxious’, with 51% disagreeing. Just over half of respondents felt that their supervisory responsibilities had caused them anxiety and/or to miss sleep.

Feelings about wellbeing varied depending on the respondent’s field/discipline. STEM respondents were more likely than AHSS to report being kept awake at night (35% versus 27%). However, STEM respondents were more likely than AHSS to report that being a supervisor increases the quality of their own research (86% versus 78%).

Whilst those with fewer candidates were less likely to report being kept awake at night, those with more candidates were more likely to report enjoying supervision, being satisfied in their supervision abilities and supervision improving their own research.

What one thing would make your role as a research supervisor better?

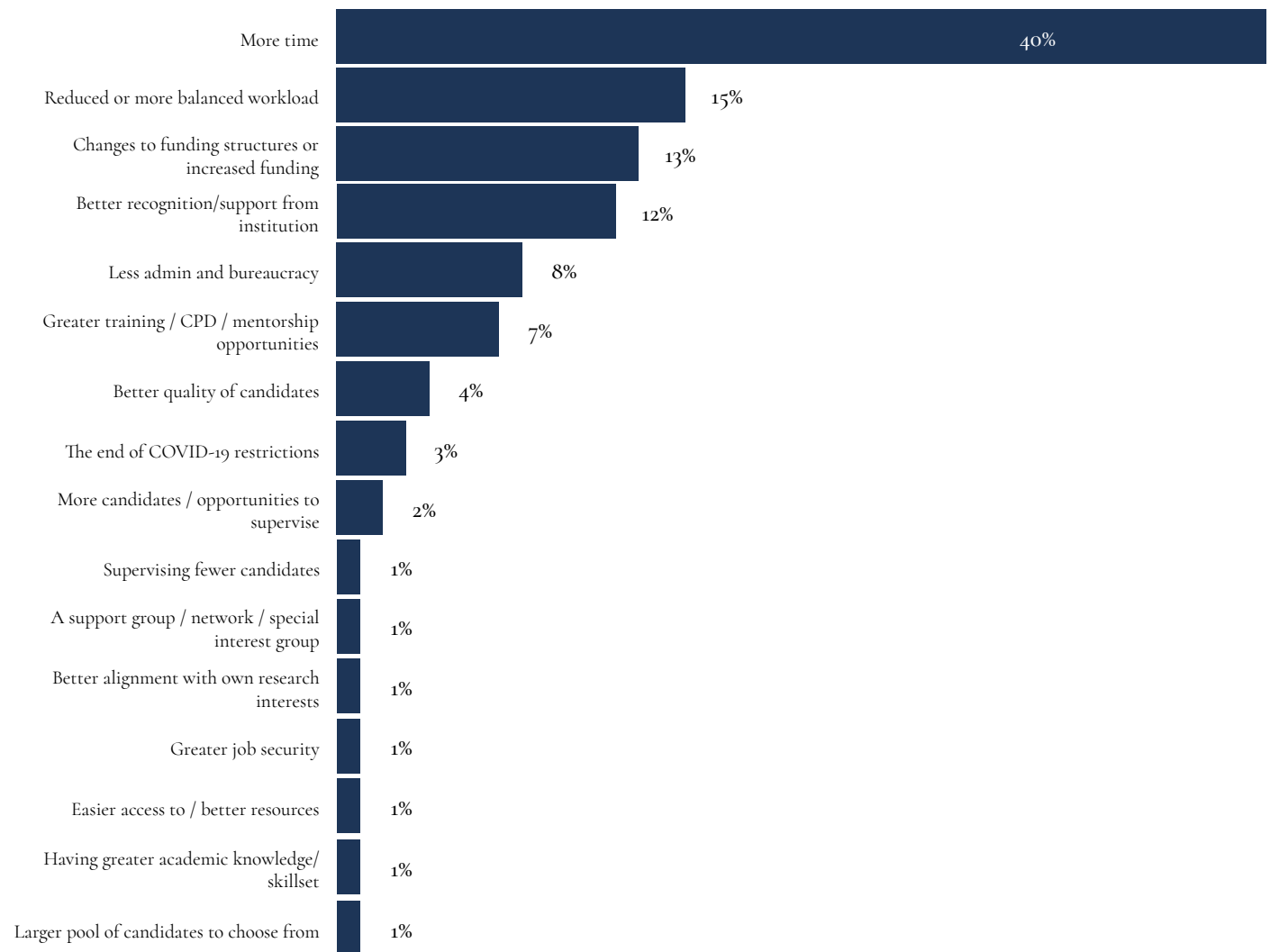


Fig 44. Wellbeing of supervisors

n= 1,336

It is concerning that anxiety and sleeplessness are affecting a proportion of respondents, that at least 55% feel that they need more time to give to their supervisory responsibilities, and that 40% would say that research supervision is undervalued at their institution. It is important, however, to interpret these findings in the context of the overwhelming number – 91% - who report that they enjoy being a research supervisor, and that 93% value their involvement with doctoral supervision.

The impact of COVID-19

“Particularly in the last (COVID) year, the effort required to meet teaching commitments (developing online/blended materials, supporting undergrads) has meant that PhD supervision has slipped down the priority list.”

Anonymous

Increased supervisory responsibilities

65% felt that their supervisory responsibilities had increased due to COVID-19 (base n = 3,435), with 30% neutral. This increase was most strongly felt by those in their early (70%) or mid-career (68%). 69% of those supervising in STEM subjects reported an increase in responsibilities. This was especially the case for those working in biological and physical sciences (both 73%).

“...being a supervisor can be a pretty lonely and isolating experience, particularly during COVID”

Anonymous

There appears to be a link between the level of pastoral care in a supervisor’s role and their likelihood to see an increase in responsibilities during the pandemic. 68% of those who felt it is their role to provide pastoral support felt that their responsibilities had increased since the outbreak. Furthermore, those who supervised candidates with background factors requiring greater levels of support were also more likely to report an increase in responsibilities. For example, 70% of those who supervised candidates with a disability, English as a second language (68%) and caring responsibilities (69%) reported an

increase in supervisory responsibilities since the outbreak of COVID-19.

Supervising online

Over half of respondents found all aspects of supervision had become more challenging during the pandemic. There were no significant differences by gender.

When it came to supervising online / remotely, only 35% said this caused no difficulty. 27% said this had been ‘challenging’ or ‘extremely challenging’ and 38% reported that it had been ‘slightly challenging’. In open responses, respondents spoke of ‘being robbed’ of informal meetings with doctoral candidates, which helped to keep them motivated and to monitor their progress. Others pointed out that it is difficult to build trust while working remotely:

“It is often difficult to get students to open up and be honest about problems and difficulties. Providing a caring and supportive environment is key to building trust, but particularly during Covid this has been difficult because of remote working.”

Anonymous

In a focus group, one participant observed that remote working had meant that some doctoral candidates ‘almost never’ talk to their supervisor:

“I think a lot of that feedback loop has been broken in the last year. How different people have handled trying to be a supervisor while being mainly remote has been interesting. I think as a postdoc I’m connected to a lot more of the PhD

students. So you end up seeing a situation where some people talk to their supervisor almost never and feel completely lost. So you can sort of go, well, I can at least reflect we're doing a better job than that, even though you feel like you're not supervising in the way you normally would."

STEM, Unaligned, South West, Early career

Preparing and conducting online vivas

Preparing and conducting online vivas was the least challenging aspect of supervising during the pandemic, with 50% reporting no difficulty and 13% reporting that this had been 'challenging' or 'extremely challenging'.

Balancing supervision with caring / domestic responsibilities

Only 32% of respondents reported no difficulty in balancing supervision with caring / domestic responsibilities.

"I think students have had very unrealistic expectations this year and I have found that conflict challenging. It feels like there has been a big drive to support students but not to support supervisors during the pandemic (I have a clinical role and primary [school] age children so have had a lot to balance) so perhaps a charter about what they can expect and where the limits are in the same way we have to abide by recommendations."

Anonymous

Respondents in their late career were more likely to report no difficulties with several aspects. For example, around half of late-career respondents had no difficulty with balancing supervision with domestic responsibilities (46%), while only 25% of early-career

How challenging has the following been for you during the pandemic?

Balancing doctoral supervision with caring / domestic responsibilities



Fig 45. Balancing supervision with caring / domestic responsibilities n= 2,534-3,372. 'Not applicable to me' removed

supervisors reported no difficulties with this.

Managing their own mental wellbeing

33% of respondents reported no difficulty in managing their own wellbeing. This rose to 47% of late-career supervisors, compared to 23% for those in early career.

"Currently, [my biggest supervisory challenges are] the pressures of the pandemic - working in unsuitable domestic conditions, anxiety, stress, needing more pastoral support when I am also going through a pandemic, life crises, caring etc and I too would like to be cared for rather than care."

Anonymous

Financial issues affecting candidates' projects

“I literally have no time for my own research anymore because I am having to spend all of it on PhD monitoring, supporting candidates' constant requests for extensions and further funding which they have been forced to make because of the pandemic, answering queries about their enrolment etc. which cannot be answered by administrators anymore because we do not have any left... The work I used to be able to do in 'research' time I now have to do at the weekend - or disappoint my collaborators and damage my own research profile in the long run.”

Anonymous

Only 26% of respondents reported no difficulty as regards financial issues affecting candidates' research projects, with 38% saying this had been 'challenging' (29%) or 'extremely challenging' (9%).

Refocussing doctoral research

Overall, helping doctoral candidates change projects or refocus their research was the most challenging aspect of supervision during the pandemic, with only 23% reporting 'no difficulty' with this aspect of their supervisory role:

How challenging has the following been for you during the pandemic?

Helping doctoral candidates change projects / refocus their research



Fig 46. Refocussing doctoral research n= 2,534-3,372. 'Not applicable to me' removed

Conclusion

Valuing doctoral supervision

91% of respondents reported enjoying their role in doctoral supervision. Research supervisors clearly valued their role (93%) and were motivated by being able to help engage, motivate and train the next generation of researchers (72%), in addition to pride in seeing candidates succeed (14%). This was a strong theme of focus group discussion, in which participants were likely to indicate they were motivated by intrinsic rewards, such as a sense of pride in seeing their candidates succeed.

While they were likely to feel that their candidates value research supervision (92%), they were less likely to agree that their workplace or institution valued it (52%). This may be linked to a lack of recognition for their role, either via awards (which were not available for 47% of respondents), or within promotions criteria (17% of respondents reported supervision was not accounted for in promotions – with a further 29% unsure). When exploring suggested improvements to make the role of supervisor better, 12% of responses directly indicated a need for ‘more recognition and support from their institution’, 7% said ‘more training’ and 40% said ‘more time’. Focus group participants suggested that they desired more recognition within their workload models, so these would a) reflect the time that they were actually putting into their candidates, and b) provide them with more time to ensure they could supervise effectively. Many suggested this role was eaten up by admin and other ‘less important’ tasks.

Supporting doctoral supervision

When exploring supervisors’ skills and knowledge, 95% of respondents indicated that they understand their institution’s policies and procedures for monitoring candidate progress. Later questioning found that 84% of supervisors agreed that their workplace supported them in this area – which demonstrates that training and support can work when this is successfully implemented. However, despite a high proportion of respondents reporting they understand institutional policies, later questioning in both the survey and focus groups suggested supervisors either lacked awareness of specific policies or were less clear on certain details. Some supervisors in the focus groups suggested that policies were not always adhered to within their departments, such that they were treated as a loose set of guidelines, which were flexible depending on workload, experience or staff availability.

Nonetheless, there were areas where supervisors felt supporting was lacking. A third did not feel adequately supported in acquiring the interpersonal and intercultural skills needed to supervise doctoral candidates from diverse backgrounds (33%). This lack of support is worrying, due to the drive to increase diversity across the sector. Diversity is something that is welcomed and desired within the community, and is recognised as a way to improve research culture (75%). Focus group respondents discussed the importance of having these EDI skills in place, and suggested this training should be mandatory. It appeared that currently, training was basic and was not always specifically focused on supervision.

Overall, 12% of respondents did not feel supported to enact good supervision. Some training gaps

were identified. While 85% reported that induction training was available at their workplace, this was not always mandatory. Training also appeared to be less available to some roles, such as those identifying as research staff (6% reported no availability), professional services (18%) and technicians (33%). Early-career supervisors were less likely to have access to training, with one focus group participant explaining that policies stated that this was only available for those in main supervisor roles. Again, this could be exacerbating poor research culture, as new supervisors are left to pick up skills and practices by observing others.

Supervisory teams

Supervisory teams are increasingly the norm in UK doctoral provision, with 70% 'frequently' or 'always' supervising in teams over the last five years. Team supervision was thought to support interdisciplinary skills and critical perspectives. Nonetheless, some respondents raised concerns over how candidates might cope with conflicting voices – which may suggest more training could be provided to help equip teams to support their candidates with differences in critical appraisal of their work. Focus group participants were likely to emphasise the benefits of team supervision, which included increased support, reduced workload, diverse knowledge and developing supervisory skills from their colleagues.

A positive and collaborative community

71% felt 'supported to enact good supervision'. Survey results also indicated that supervisors were most likely to make use of colleagues to enhance their practice (73%). While this suggests a positive and collaborative community, it may also hide a lack of workplace support, or perhaps a lack of uptake of available training. Within the focus groups, partic-

ipants were likely to suggest they found practical, on-the-job learning and support from colleagues or peers to be the most useful 'training' for their skill development.

Mental health and wellbeing of candidates and supervisors

Just over half (56%) of supervisors were likely to feel adequately supported with responding to mental health and wellbeing queries from candidates. This dropped to 49% in relation to feeling supported with providing pastoral care. It is likely that mental health issues amongst candidates have become more prevalent since the COVID-19 pandemic, and supervisors may have experienced an increase in demand for support since the outbreak. This is a significant burden. Training and support is crucial, not least because these responsibilities could have a negative impact on supervisors' wellbeing in turn (63% suggested this had been challenging during the pandemic).

Another key challenge for supervisors appeared to be a demanding workload, competing roles and work/life balance. When providing suggestions to improve their role, the most common response was linked to having more time (40%) – indicating that supervisors aren't able to dedicate as much time as they would like to this role. While 67% of respondents believed they should be a role model for their candidates in terms of work/life balance, 44% disagreed that they were supported with this by their workplace.

In the Wellcome research cited in this report, poor work/life balance has been found to be a key component of bad research culture – leading to problems with mental health and wellbeing. To effectively bring a change to expectations around work/life balance, visibility of good practice from above is essential. Candidates must be able to see their supervisors enacting this, whilst supervisors also need to see this being encouraged by senior leadership teams.

Supervisory capacity

30% of survey respondents suggested that their workplace set the maximum number of candidates a supervisor can supervise at any one time at five or more. 12% suggested their workplace policy had 'no limit', whereas 18% reported no policy was in place, which may lead to supervisors taking on too much. Nonetheless, focus group participants described the nuances in their capacity to take on candidates, such that supervisory workload can sometimes be reduced when they were working as a secondary or informal supervisor as part of a wider team. When exploring the optimal number of candidates, 75% of respondents suggested up to 4 candidates, however 40% indicated that they currently have some supervisory responsibility for 6 or more candidates. This suggests that many supervisors may be overworked and/or unable to manage their role in line with their workplace policy.

Despite supervisors emphasising a lack of time and high workloads, as well as high levels of funding competition for candidates, 93% agreed there should be more opportunities to recruit funded candidates.

About the UKCGE

Who we are

Established in 1994, the UK Council for Graduate Education (UKCGE) is the national representative body for postgraduate education and research. The UKCGE is the third largest representative body of its kind in the world, representing 92% of all postgraduate research provision and 85% of all postgraduate taught provision in the UK.

What we do

We champion and enhance postgraduate education and research by enabling collective leadership on the development of postgraduate affairs across UK HEIs, research agencies and funding bodies. We do this by providing learning and professional development events, commissioning research, sharing best-practice developments, and by gathering information and evidence to support policies which promote a strong and sustainable postgraduate sector.

Why we do it

The institutional autonomy of UK Higher Education providers creates a vibrant and diverse higher education sector which meets the needs of a wide range of students and researchers. In that context, we enable collective leadership and foster inter-institutional exchange, to ensure that the postgraduate sector as a whole can learn and benefit from the actions and innovations of individual institutions.

Understanding the importance of postgraduate education and research for individuals, for the economy and for society more broadly, we use our collective voice to ensure that postgraduate education and

research is properly resourced, structured and recognised within institutional and national policies. Among our charitable objectives, we have specific remits to promote the status, education and training of postgraduates and to advocate for equity and inclusiveness in postgraduate education and research.

Who we work with

We work with, and represent, everyone involved with postgraduate education and research: Pro-Vice Chancellors and Deputy Vice Chancellors with responsibility for postgraduate education and research; Research Supervisors and Doctoral Candidates; Deans and Directors of Graduate Schools, Doctoral Training Partnerships, and Centres for Doctoral Training; Graduate School and Doctoral College Managers; PGT Course Directors and Masters students; and Academic Developers. We also work with research centres; regulators; funding bodies and other interest groups. By serving and representing the postgraduate sector across all levels, we are a trusted voice on all aspects of postgraduate affairs.

How we do it

The Council is an independent educational charity which relies on voluntary contributions from individuals and institutions in the postgraduate sector. We are governed by elected representatives of the postgraduate sector, who serve for a 3-year term. We raise funds through membership subscriptions, event registration fees, and commercial sponsorship.

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