

## **Developing supervisors with ability, awareness and confidence to drive inclusive cultures for postgraduate researchers**

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## **Structured abstract**

*Purpose:* Research culture is a constantly evolving entity, and doctoral supervisors can find themselves under-prepared, over-stretched and unable to evolve their supervisory practice at a matched pace. This paper aims to evaluate current supervisory training needs and trends, the postgraduate researcher (PGR) landscape, and the national and global frameworks within which supervisors sit to identify where supervisory ability, awareness and confidence can be developed.

*Approach:* We have conducted a critical literature review to discover how postgraduate supervisors can be developed as positive agents for academic change. We have also mined publicly-available Higher Education Statistics Agency data on PGR demographics to highlight how these have changed over the last two decades.

*Findings:* The development of supervisors can be at odds with the wants and needs of both PGR, and the supervisor themselves. The PGR landscape has markedly diversified with more international, mature and gender-fluid individuals undertaking post-graduate education. Raising supervisor awareness of the different challenges that diverse populations of PGR face, and how to support them, would be beneficial. Finally, change needs to come from the top with inclusive post-graduate education policies that develop, drive and empower an inclusive academe.

*Originality:* This viewpoint reveals the pedagogic groundings that underpin our central hypothesis – PGR well-being and research culture will only be improved when supervisor training, awareness and well-being are developed and valued at a higher level.

## **Keywords:**

Doctoral supervision, research culture, mental well-being, doctoral education, work-life balance, student-supervisor relationship

## **Article classification:**

- Viewpoint (content dependent on author's opinion)

## Introduction

Research culture is a complex amalgamation of multiple micro, meso and macro factors – the researcher themselves, their supervisory team, peer network, university structures, fluctuating government policies, and the research field itself. Recent studies have emphasised a precarious research culture for postgraduate researchers which is characterised by poor mental well-being, difficulties in attaining work-life balance and long working hours (Panayidou and Priest, 2021; Riches-Suman and Delderfield, 2021). These are problematic in themselves but can have an even greater impact on individuals who have disabilities, caring responsibilities, or unconventional career paths. In order to develop an inclusive research culture, we need to address systemic beliefs and practices at all levels.

In our previous work, we identified five areas that Postgraduate Researchers (PGR) felt could be improved at the institutional level. These were:

1. Supervisor training including awareness of well-being issues, work-life balance and annual leave allowance
2. University systems encompassing administrative processes, support and admissions
3. Well-being monitoring from the perspective of the institution and not the supervisor
4. Building networks for peer and social support
5. Financial implications of conference fees, tuition fees and teaching opportunities.

For a detailed analysis of these topics see Delderfield *et al.* (2020).

In this viewpoint paper, we focus on the role that the supervisor can play in developing an inclusive research culture for postgraduate researchers. Over time the student-supervisor relationship has evolved from a master-apprentice dynamic to a more nuanced and supportive, developmental role which requires more flexibility and experience to navigate the personal complexities that arise with postgraduate supervision (McCallin and Nayar, 2012). However, the development of supervisors has not kept pace with this evolution (Gruzdev, 2020). Some supervisors feel overwhelmed and underprepared for undertaking the pastoral aspects of supervision, whilst others see no need for it and prefer to work within a hierarchical model that focuses solely on the scholarly aspects of the research craft (Bartlett and Mercer, 2000; Woolston 2019). Cultural expectations can add an extra level of complexity when PGRs or supervisors from different international communities with different experiences and expectations of doctoral education meet (Calma, 2011; McCallin and Nayar, 2012). This paper will investigate the role that supervisors can play in developing research culture, and the developmental needs that supervisors themselves require in order to provide a more progressive and inclusive academic environment in which PGRs can thrive.

As a brief note about what is meant here by ‘research culture’, the term can be understood as the practices, “values...expectations, attitudes and norms...” of communities of researchers (The Royal Society, 2022). Less clearly defined is its intrinsic link with environment: place and space can significantly impact on/interact with research culture. Whilst our use here is singular, it may be better considered as a plurality of ‘research cultures’ lived by disciplines and organisational groups of researchers.

## Developing supervisors with ability

Supervisor training is, arguably, notoriously variable. Some institutions require minimum attendance at a supervisor training event or course periodically, this is often mandated with the aim of refreshing the supervisor’s knowledge to help them to remain ‘in good standing’. At our institution, for example, this involves participation in a three hour workshop every three years. Others require more or less engagement in supervision-focused continuing

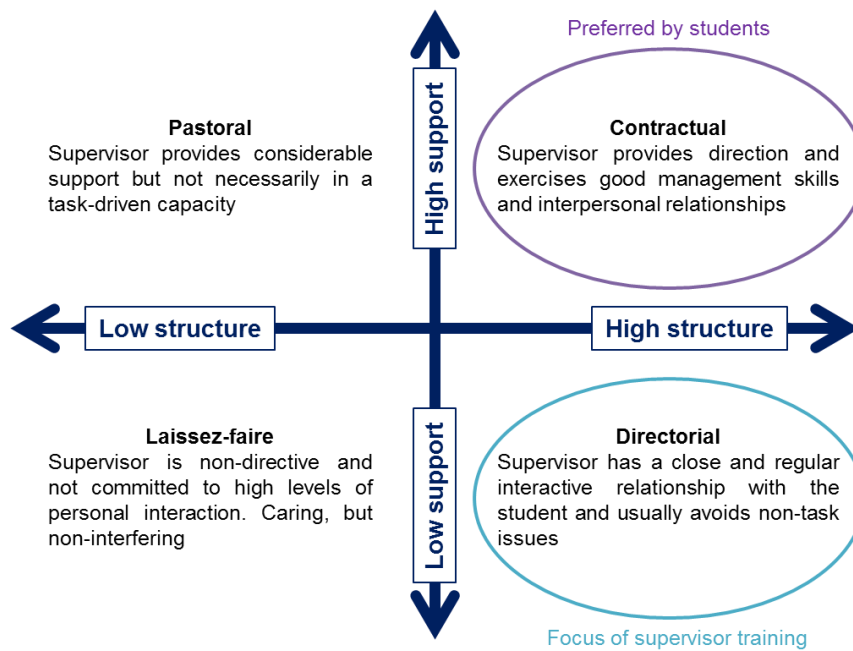
professional development. Fast-track supervision courses, where inexperienced supervisors can undertake more intensive training to allow them to principally supervise a PGR before they have any co-supervision completions, has been successful in giving PGRs as satisfying, if not slightly more satisfying, supervision experiences (Abdullah and Evans, 2012). Importantly, this paper ties together the dual aspects of PGR psychological attributes with the experiences they have with their supervisor, and how these impact on their overall postgraduate experience.

Supervisors are by definition researchers, given the widespread expectation of a doctorate in their field (this is not to marginalise supervisors who are active clinicians or field experts contributing to a supervision team, of course). However, knowing how to conduct research and how to supervise others' research are different things. In many cases, supervisors can develop their supervisory style using a 'learn-by-doing' approach whereby they follow the examples they experienced as a supervisee into their supervisory role. This is implicitly problematic given the lack of industry-style standards and expectations in supervision and, in the worst instances, can propagate the 'I suffered so you must suffer' narrative that is damaging to research culture (for further literature-informed viewpoint and reflections on this, see Riches-Suman and Delderfield, 2021). Similarly, the growing use of 'how to' guides for novice supervisors can propagate the one-size-fits-all approach to doctoral supervision which does not take into account the wildly varying needs and wants of both supervisors and their PGRs (Henderson, 2018).

The seminal work by Anne Lee (2008) proposed five different approaches to supervision which were interlinked. The first approach, 'functional' addresses the classical idea of a supervisor as project manager. Secondly, 'enculturation' starts to develop the PGR as a member of their wider research community. The third approach develops PGRs 'critical thinking' skills which are arguably essential measurables at the thesis defence. The fourth approach leads to 'emancipation' where the PGR develops into an independent and critical researcher and finally 'developing a quality relationship: where the student is enthused, inspired and cared for' (Lee, 2008). We would argue that this latter point, that of pastoral care of individual beings, is an area that generates substantial stress both on the PGR and the supervisor, especially as supervisors may feel ill-equipped to provide relevant support or may themselves be experiencing issues in their own staff pastoral care (Parker-Hay, 2020).

Gatfield (2005) defines four different supervisory management styles. The Laissez-faire style is characterised by supervisors who are non-directive, have low levels of personal interaction with their PGRs and can appear uninvolved. In the Pastoral style, supervisors are more likely to support their researchers' personal development and/or problems irrespective of whether they are related to the academic subject. Directorial style sees supervisors putting the emphasis firmly on the project alone, and the Contractual style offers a blend of pastoral and directorial approaches (Gatfield, 2005). These categories have aged remarkably well and can still be recognised across academia almost 20 years later.

The Contractual style of supervision is the most demanding in terms of supervisor time, but is the approach that in general works best for PGRs (Gatfield, 2005 and Gruzdev, 2020). This can put the supervisor at odds with their institution – the pedagogic evidence is that effective supervision takes time but as academics are squeezed due to growing workloads and administrative burdens, supervisors do not have the time available to dedicate to their PGRs (Clegg and Gower, 2021; Gower *et al*, 2021). Furthermore, training courses for supervisors typically focus on the Directorial style and on university policies and procedures for progression with comparably less focus given to pastoral development of their doctoral researchers (Gower *et al*, 2021; Figure 1). This can result in supervisors who are inexperienced and untrained in critical aspects of supervision.



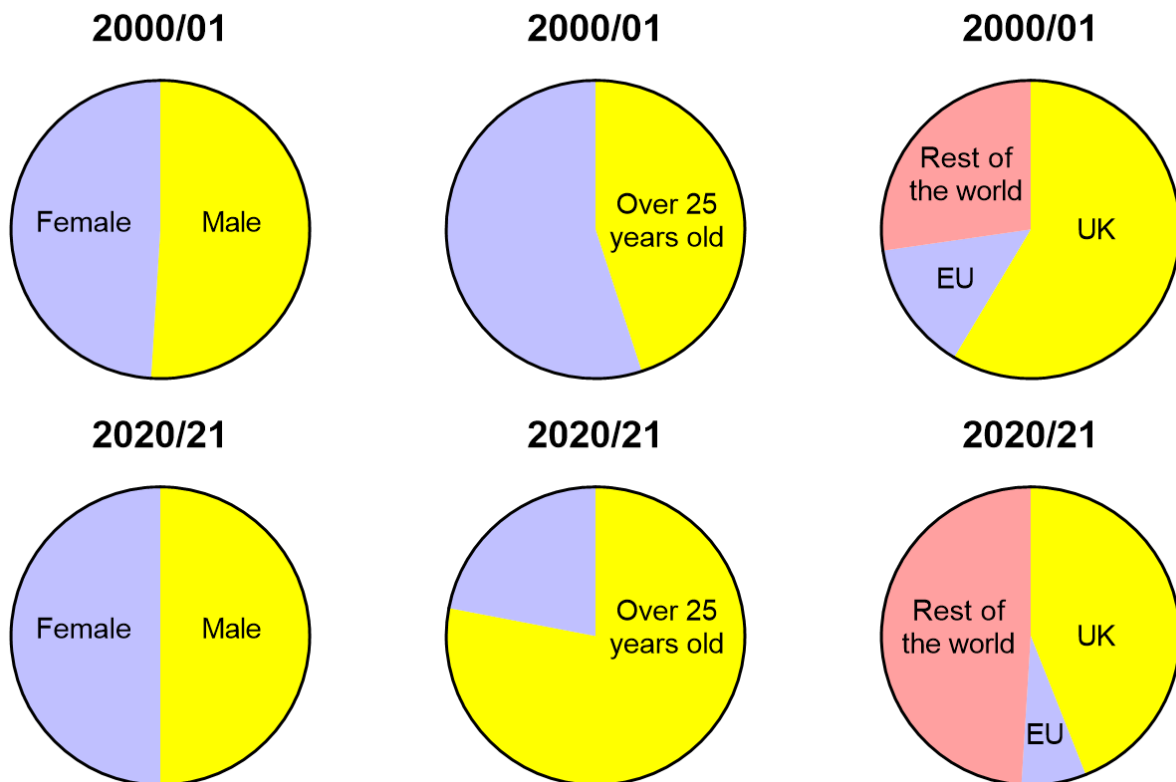
**Figure 1: Putative mismatch between the balanced supervisory approach preferred by PGRs and the approach that mandatory university training and systems provide. Based on Gatfield (2005).**

## Developing supervisors with awareness

As much as supervisors need adequate training in the intricacies of project and personal supervision, they also need to be aware of the challenges that PGR face during their day-to-day studies and how these may be different from their own individual experiences of being supervised during their own doctoral journeys. This can be difficult given the increasing workload of academics and the recognition of poor well-being that is prevalent across the sector (Gower *et al*, 2021; Guthrie *et al* 2018; Morrish 2019). One recent initiative that addresses this potential lack of awareness is the UK Council for Graduate Education (UKCGE) recognised supervisor programme. This is being taken up by institutions across the UK and it explicitly encourages supervisors to reflect on how they are supporting their researchers throughout the entirety of their career – from application, to project supervision, through to post-graduation career development (Taylor and Clegg, 2021). This ‘structured reflection’ frames areas that are critical to supervisory relationship success but that may have been overlooked or side-lined due to the pressures stated above. Structured reflection provides support by creating a process, guide and focus for the reflective activity, offering a purposeful route into reflection for those supervisors who may feel less familiar with it. As stated in the Research Supervision Recognition Programme, it challenges the assumption that supervision “just happens” nor is any academic “naturally adept” at supervising (UKCGE, 2022). Reflecting on all aspects of supervising ‘persons’ rather than ‘projects’ inevitably refocuses a supervisors’ attention on all key aspects of supervision, not only the subject or methodological expertise or the institutional processes that tend to dominate. It leads to reflection on how supervisors help to support PGRs and, by extension, increases supervisor awareness of the challenges and well-being issues that a PGR can face. Regardless of whether academics engage with this new supervisory recognition scheme, they cannot fail to be exposed to the wealth of literature and popular press highlighting poor well-being and work-life balance in PGRs (Milicev *et al*, 2021; Byrom *et al*, 2021) and the persistence of mental health stigma in universities (Berry *et*

al, 2021). This is important because, if supervisors are unaware of the burden of mental ill-health in the PGR population, they are underpowered to support individuals navigate their doctoral journey.

The nature of academia is dynamic and changes over time, however it can be challenging for supervisors to recognise these changes and adapt their supervisory styles, as we rarely have time to look at the ‘bigger picture’. Understanding how PGR demographics are changing will afford supervisors insights into challenges individual PGRs may face. Furthermore, knowledge of the PGR population as a whole can help supervisors to avoid unconscious bias and cultural insensitivities. Whilst HE institutions often require academics to undergo online training regarding these issues they are anecdotally framed around recruitment and interviewing potential staff members as opposed to understanding the cultural needs of PGR; an issue that should change to explicitly address the development of an inclusive research culture (Harrison-Bernard et al, 2020). Data from the Higher Education Statistics Agency (HESA) demonstrates how demographics in academia in the UK have changed over the last two decades (Figure 2).



**Figure 2: UK PGR demographics have changed over the last two decades.** The proportion of mature and international PGRs studying in the UK has increased over time. These students inevitably have different challenges during their studies compared to the ‘traditional’ view of a home student in their early twenties. Data derived from HESA (accessed 3<sup>rd</sup> May 2022).

The proportion of female PGRs has remained remarkably stable at ~50% between 2000/01 and 2020/21, however it is interesting to note an increase in the number of PGRs who select ‘other’ as their gender identity. Figures for 2000/01 are not available, however the number of students selecting ‘other’ has increased from 420 in 2016/17 to 2010 in 2020/21. While these numbers are small, they are a 3.4-fold increase corrected for total number of PGR in these years. This is likely a representation of growing awareness and recognition of gender fluidity and is something that supervisors (and academia as a whole) needs to understand. PGRs

who are transgender or non-binary are more likely to suffer with poor well-being during their PhD studies than cis-gendered students (Evans *et al*, 2018; Milicev *et al*, 2021) and current guidance for supervisors in this area is lacking.

The proportion of mature students (classified as age 25+ at enrolment) has increased markedly over the last 20 years from 45% to 78%. This reflects a growing number of PGR who have caring and financial responsibilities that, traditionally, have not impacted on study. Despite these extra challenges, mature students are less likely to access institutional support services (Waight and Giordano, 2018). One key aspect of supervision in this respect is understanding the time restrictions that this places on carers and the importance of work-life balance to avoid burnout. It requires moving away from our 'two tribes' hypothesis of 'I suffered so you must suffer' (Riches-Suman and Delderfield, 2021) to a more supportive, inclusive environment that allows scholars to thrive alongside their personal circumstances, as opposed to in spite of their personal circumstances. Furthermore, PGRs with financial and/or caring responsibilities can find travel for conferences and placements inaccessible. Whilst there is a growing movement for childcare provision at conferences and financial support (Calisi 2018), there needs to be advancements in this area if we are to improve inclusivity. Supervisors need to keep abreast of these issues – if PGR with caring responsibilities or financial challenges are reluctant to attend conferences or extra-university events, this may be reflective of tangible barriers that PGR face rather than a lack of willingness to engage and will require supervisory support tailored to the barrier rather than, for example, building presentation confidence. They are also considerations that supervisors and PGRs can be receptive to when they are arranging symposia themselves.

The last two decades have also seen an increase in the number of international PGR coming to study in the UK. In 2000/01 this figure stood at 41% and this has increased to 56% in 2020/01. Whilst this does reflect global recognition of the academic status of the UK, it is also important to recognise the extra challenges that international PGR face. Isolation, cultural shock and differing academic cultures can all contribute to alienation and attrition for international students (Delderfield *et al*, 2020). International students can often feel like outsiders within their institution and the academy (Morris, 2021), and the difficulties in conducting specialised level 8 studies in a second language are well recognised (Paltridge and Starfield, 2007; Strauss 2012). There is a long-recognised issue with under-representation of black, Asian and minority ethnic (BAME) researchers in academia, both at the recruitment level and even moreso at the professorial level (Arday, 2021). However, HESA statistics suggest that there has been no improvement in the proportion of BAME PGR over the last twenty years with numbers remaining steady at 24-26%. Recruitment and retention of PGR from these under-represented groups still needs to be improved, but mechanisms to do that are beyond the scope of the current paper.

## **Developing supervisors with confidence**

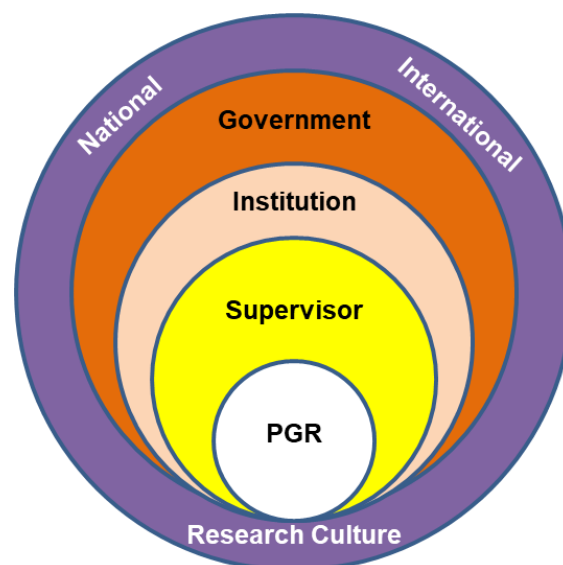
The long-held perception of academia as a province for free thought, creativity and flourishing intellect has recently been challenged. Not only through the wave of mental ill-health that has swept academia (Gower *et al*, 2021), but in changing managerial and cultural practices as exemplified by the discourse of Fleming (2021). One of the issues that this brings is a culture of 'that's just how it is' as supervisors do not feel empowered to enact research culture change.

Supervisors are strongly encouraged to attract high-calibre doctoral researchers and have them graduate in a timely manner, which can often be interpreted as a 'PhD production line'. This frames the institutional view of PGR as commodities rather than people; and supervisors are at the intersection of these two opposing views. Furthermore, there is great diversity in institutional policies across the UK regarding completion and even more so globally (Cyranski *et al*, 2011; Tinkler and Jackson, 2000) and this lack of consistency can make it difficult for doctoral supervisors to navigate a deregulated, varying, and challenging journey. If

supervisors themselves are unsure of the practice and purpose of supervision, how can they provide a supportive and inclusive, person-driven culture for their researchers? Arguably, the workload and well-being of supervisors needs to be taken equally as seriously as the workload and well-being of PGR (McAlpine *et al*, 2020).

This perspective may paint the picture of the institution as the ‘bad guy’ in this scenario, but of course institutional policies are formed as a result of governmental policies. Whilst the aim of the Research Excellence Framework (REF) is to promote, recognise and reward (through HEFCE funding) excellent research, it has also created a highly competitive environment (Musselin, 2018). Institutions’ financial viability can now be intrinsically linked to the number of doctoral researchers they produce, and the calibre of the publications and grant applications that their academics churn out. This has contributed to a culture of over-work which inevitably impacts on PGR experiences when supervisors do not have sufficient time to help their personal development (particularly given the changing demographics of students; Figure 2). Furthermore, institutions now ‘poach’ productive researchers for their REF returns (Kinsey 2019) which can disrupt the student-supervisor relationship and have negative effects on PGR well-being, belonging and completion (McAlpine *et al*, 2012; Ives and Rowley, 2005).

This suggests that reform needs to come from the top down, i.e. from policy makers in government to those in institutions, to enhance the research environment for both academics and their PGR (McAlpine *et al*, 2020). Awareness of the global nature of the doctorate, and the benefits that extra diversity can bring to academe is growing (Kamerlin 2020), however, this is not to say that practice is reliably robust, as evidenced by a recent study from North America highlighting inherent gender and ethnicity-based bias from STEM professors when looking at doctoral candidates (Eaton *et al*, 2020) and the suggested biases, debated in the media, against promoting black and ethnic minority academics in the UK (Khan, 2017). As reform develops in the larger spheres of influence of policy-makers, national and international norms, so supervisors will be empowered to enact change within their smaller sphere of influence to improve research culture (Figure 3). It is posited that this can be achieved by creating an accepting, supportive environment around the supervisor, where expert staff feel heard and valued, rather than feeling that supervision is marginalised and deprioritised by their institutions or by sector norms.



**Figure 3: Spheres of influence within research culture.** PGRs sit at the core with the supervisor, institutional and governmental regulations all have increasing spheres of influence within the overall national and international research culture.



We posit that the national 'The Concordat to Support the Career Development of Researchers' represents some of the top-down reform necessary by providing a bottom-up approach to personal development for researchers (The Concordat, 2022) and the evolution of local and national research cultures. Among many important elements, the Concordat enshrines two particularly valuable changes: that signatories should ensure they consult pro-actively and frequently with their researchers and managers of researchers and use action planning to address needs and concerns; and a commitment to individual researchers' time to develop themselves. Our hope is that some of this protected time will be used to improve cultural awareness and person-centered doctoral pedagogies that can help supervisors respond to and support the full range of life and research experiences of PGRs.

## Conclusions

The stated aims of this viewpoint paper were to investigate the role supervisors play in developing research culture, and the developmental needs that supervisors have in order to provide progressive and inclusive environments for PGR to thrive. We have broken these into three interlinked facets: supervisor ability to supervise effectively and their own training needs to do this; supervisor awareness of the challenges that PGR face; and supervisor confidence in enacting positive changes in their research environments. It is not enough to have completed our own doctoral journeys, as crucial as this is, we also need to be investing time in ourselves as supervisors throughout our careers.

We propose that supervisor ability can be improved by readdressing the balance of focus on administrative procedures versus pastoral care in mandatory training sessions. Whilst understanding the often-complex institutional regulations around PGR administration are undoubtedly very important, and supervisors must be familiar with them, we argue that the development of the PGR as a professional individual is just as important. Thus, training provision that gives guidance on how to develop PGR confidence would be beneficial. As complex and complete individuals, PGR can encounter many difficulties throughout the course of their studies that are unrelated to their academic project, for example ill health, bereavement, pandemic-related lockdowns to name but a few. Training supervisors in how to cope with and adapt to these changing circumstances will undoubtedly have a beneficial effect on inclusivity and acceptance in research culture. It also links with the second proposed area of advancement: that of developing supervisor awareness.

Awareness of issues facing PGR, in order to provide effective supervision, is predicated on open and clear lines of communication. Regularly checking in with PGR regarding their wellbeing could be mandated in all formal monthly meetings. Instead of exclusively focussing on what aspects of the project the PGR has completed in the preceding month and planning for the next one, meetings can be structured to cover the project, the person, and any transferrable skills needs (e.g. confidence building in presentations, public engagement). Stepping back to appreciate the dynamic and changing PGR landscape and breaking down the stigma around discussing mental wellbeing would provide a safe and welcoming space for all PGR, as well as the supervisor themselves. Having the time and head space to do this however links in with our final proposed area of advancement: supervisor confidence.

The general feeling across academia currently is that we are all broken, burnt out or on the path to these negative places, particularly if you engage with academic social media such as Twitter. Within the confines of these negative emotions it can be difficult to be an agent for positive change. This is where HE institutions have a body of work to conduct to help supervisors feel valued and important as a whole person with their own wellbeing needs, rather than a faceless individual to be workloaded without consultation and burdened with sometimes unrealistic expectations of hard outputs. If supervisors feel confident and content in their place within academia then this will undeniably transfuse through to their research teams including PGR and propagate an inclusive culture. Formal opportunities to discuss

research culture both within the management of ones' own University, as well as with policy makers or governmental thinktanks would be beneficial.

Whilst a supervisor has a substantial level of influence over the PGR, within the context of all the meso and macro factors that contribute to research culture, their impact as an individual is relative. However, if all supervisors were empowered to not only contribute to, but drive, systemic change this could make a more inclusive and rich research environment in which both PGR and the supervisor themselves can thrive.

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