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# BMJ Open Barriers, facilitators and solutions to equitable career progression for disabled doctors: an integrative review

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To cite: Brown MEL, Burford B, Vance G. Barriers, facilitators and solutions to equitable career progression for disabled doctors: an integrative review. BMJ Open 2025;15:e106639. doi:10.1136/ bmjopen-2025-106639

Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (https://doi.org/10.1136/ bmjopen-2025-106639).

Received 16 June 2025 Accepted 29 August 2025

#### **ABSTRACT**

**Objectives** Disabled resident doctors face persistent structural, cultural and institutional barriers to career progression. This integrative review synthesises empirical and grey literature to identify the challenges disabled doctors encounter, the practices that support their careers and the potential solutions applicable to healthcare, in particular National Health Service (NHS), settings. **Design** Integrative literature review using a content

analysis approach to data analysis. Included sources were published in English and examined disabled doctors' career progression or included disabled doctors as a separate subgroup. Opinion pieces without empirical grounding and articles not available in full text were

Setting International postgraduate medical education, with consideration for transferability and applicability to the UK NHS.

**Participants** Focused on the experiences and careers of disabled resident doctors, at any stage of their career, prior to completion of training.

Results Following Preferred Reporting Items for Systematic Reviews and Meta-Analyses-Equity guidelines, 53 sources were included and analysed. Structural ableism, inaccessible systems and stigma around disclosure were consistently identified as barriers to career progression. Facilitators included mentorship, affirming supervisory relationships and identity-affirming networks. Promising practices included universal design approaches, anticipatory rather than reactive approaches to making adjustments and integration of disability equity into organisational governance. However, most initiatives remain unevaluated, and UK-specific evidence is limited. **Conclusions** While awareness of barriers is growing, evidence-based solutions remain underdeveloped and unevenly implemented. To build a sustainable and representative medical workforce, workforce policy and planning must not only remove barriers to progression for disabled doctors, but also embed disability inclusion into the structures and cultures that shape medical career paths.

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#### INTRODUCTION

Disabled doctors are under-represented in the medical workforce internationally and face persistent barriers to career progression. Despite legal protections globally and national organisational commitments to

#### STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The study follows a rigorous integrative review methodology, aligned with Preferred Reporting Items for Systematic Reviews and Meta-Analyses-Equity guidance, to synthesise international evidence on disabled doctors' career progression.
- ⇒ It combines empirical and grey literature from multiple countries and healthcare systems, with specific attention to relevance for UK National Health Service
- ⇒ It incorporates stakeholder and patient/public input to shape review questions and framing, supporting a solution-oriented approach.
- ⇒ Most included studies focus on identifying barriers, with fewer providing evaluated interventions or robust evidence on solutions.
- ⇒ Few included studies adopted an explicit intersectional lens, limiting insight into how disability interacts with other forms of minoritisation (eg, race, gender) in shaping career progression.

equity, disabled doctors continue to report widespread experiences of stigma, inadequate support and systemic disadvantage in training and practice. This impacts not only their individual careers but also the sustainability, representativeness and inclusivity of healthcare workforces globally.

Supporting the inclusion of disabled doctors is integral to delivering high-quality, patient-centred care. Diverse medical workforces improve healthcare's capacity to address the needs of varied patient communities, improving patient experiences and satisfaction. 8 Given that disability prevalence is substantial in many countries (eg, 24% of the UK population is disabled<sup>9</sup>), and that this proportion is expected to rise in ageing, multimorbid populations, 10 improving disabled doctors' career progression is both an issue of equity and a workforce sustainability issue.

However, despite the recognised importance of inclusivity within healthcare organisations, disabled doctors in many countries continue to face barriers to career progression. In this review, career progression is



defined as movement through key stages of training and professional development—including specialty training entry, postgraduate examinations, annual reviews or equivalent progression milestones, retention, attainment of specialist or consultant status and access to leadership and academic roles. <sup>11</sup> Career progression is shaped not only by individual capability, but also by systemic factors including access to support, equity of opportunity and workplace culture. <sup>12</sup>

One key systemic factor that shapes disabled doctors' experiences is ableism: a system of beliefs, practices and structures that position able-bodiedness as the norm and marginalise those who do not conform to it.<sup>13 14</sup> Ableism operates at both interpersonal and structural levels, 13 influencing not only attitudes and behaviours towards disabled doctors, but also the design of medical education, assessment and workplace systems. It underpins many of the barriers that disabled doctors encounter in their career progression, including absent or inadequate workplace accommodations, lack of mentorship, differential attainment at assessment milestones and widespread stigma. 15 16 While individual studies have documented these barriers in specific contexts, <sup>17–19</sup> there has been no comprehensive synthesis that brings together a diverse and fragmented evidence base to examine how disabled doctors experience and navigate career progression within postgraduate medical education internationally.

This integrative review addresses this gap by synthesising international empirical and grey literature to identify barriers, facilitators and emerging solutions that support the career progression of disabled resident doctors. It adopts a solution-oriented lens, with the aim of informing actionable improvements for educators, healthcare leaders and policymakers. While the scope is global, the review also considers the applicability of identified insights to the UK National Health Service (NHS), given its current policy focus on disability equity within the medical workforce and the location of the review authors.

#### **METHODS**

The aim of this review is to synthesise existing literature to create a comprehensive understanding of the factors that influence career progression for disabled resident doctors. The research questions are:

- 1. What are the barriers faced by disabled resident doctors in their career progression, and how do these barriers shape career outcomes?
- 2. What strategies and interventions have been effective in supporting career progression for disabled resident doctors?
- 3. What solutions from national and comparable international contexts can inform practices of supporting disabled resident doctors' careers in the NHS?

Definitions of disability vary internationally; this review adopts the broad framing of disability as physical or mental impairments with long-term impacts on daily life, consistent with the UK Equality Act 2010<sup>20</sup> and comparable international frameworks. Disability spans a wide spectrum of physical, mental, sensory and neurodevelopmental conditions—including visible and less visible disabilities (eg, chronic illness, neurodivergence); and those present from birth or acquired through illness, injury or stress.

#### **Design and rationale**

An integrative review is a type of literature review method developed within nursing science, which is used to synthesise and critically analyse diverse forms of evidence on a particular topic.<sup>21</sup> It supports a comprehensive understanding of complex phenomena by integrating quantitative, qualitative and grey literature, making it particularly suitable for addressing multidimensional research questions.<sup>22</sup>

An integrative review was chosen over a scoping review for this study as it aligns more closely with the solution-oriented focus of the research questions. Unlike a scoping review, which primarily maps the breadth of existing literature, an integrative review enables a more critical synthesis of evidence that more easily leads to the identification of barriers, facilitators and actionable recommendations.<sup>23</sup> This aligns with our objectives.

#### **Patient and public involvement**

A workshop and series of individual interviews were held with 20 patients and professional representatives via Voice Global (Voice Global is an international, online platform which facilitates patient and public involvement in research by allowing researchers to advertise engagement opportunities, and for patients to express their interest in becoming involved. It is free for both researchers and patients to engage via the platform.)<sup>24</sup> in November 2024, the focus of which was to identify priorities, concerns and areas of interest relating to disabled resident doctors' career progression. Participants in workshop 1 (n=12) were disabled people and carers with lived experience of using NHS services. Participants in individual interviews (n=8) were disabled doctors with experience of careers within the NHS. This engagement helped shape the questions asked within this integrative review-specifically, it led to our adopting a solution-focused approach. Patients and carers highlighted the importance of understanding how the inclusion of disabled doctors shapes patient trust, communication and care quality. Doctors identified the lack of focus to date on interventions and solutions. This engagement informed the review's focus on solutions with direct relevance to patient experience.

We also discussed language use with the patient and public involvement (PPI) representatives, and the consensus across both groups was to use identity-first language ('disabled resident doctors' and 'disabled patients', etc) rather than person-first language. This reflects the view that disability is a socially and structurally produced experience. Identity-first language aligns with the principles of the social model of disability,<sup>25</sup>



which recognises that individuals are disabled by systemic barriers rather than by impairments alone. While we acknowledge that preferences regarding terminology vary across national contexts, communities and individuals, we have adopted identity-first language throughout this review in keeping with the expressed preferences of our PPI contributors and in recognition of the commonplace use of identity-first language within UK disability legislation and advocacy.

#### **Search strategy**

Five databases were searched, originally in November 2024, with the search updated in June 2025. Databases searched were: MEDLINE, PsycINFO, Scopus, CINAHL and ERIC. Grey literature sources included four specific grey literature databases (ProOuest Dissertations, OpenGrey, WorldCat database and Social Science Research Network) and the websites of key organisations, including: NHS Employers, the General Medical Council, NHS England, the British Medical Association (BMA) and advocacy organisations such as Disability Rights UK. Given the review's aim of informing both international understanding and relevance for the UK NHS, the grey literature search deliberately incorporated a UK focus (eg, NHS-specific sources and UK policy bodies), alongside selected international sources from other highincome, comparable healthcare systems. For a full list of grey literature sources searched, please see table 1.

Forwards and backwards citation searching were also performed on all papers identified as meeting the study inclusion criteria.

The search terms used within the review are available in table 2. Specific disability terms and Medical Subject Headings were not included, as these can be highly sensitive to clinical papers, which risked expanding the body of retrieved literature significantly with papers focused on the experiences of disabled patients, rather than disabled doctors. Our approach, developed with an Information Specialist, prioritised terms relating to disability identity and career progression, to maintain an appropriate focus on resident doctors' professional experiences and avoid conceptually diluting the review.

A full example of the search strategy is available (online supplemental material 1). A total of 3858 records were identified after de-duplication. Screening was performed in the software Covidence by one reviewer (MELB), with input from a second reviewer (BB or GV) on uncertain cases. For details on the screening process followed, please see figure 1.

As there are not specific set of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for the Integrative Review type, we adapted the PRISMA-Equity extension<sup>26</sup> (online supplemental material 2). We chose to use these guidelines, as they offer a structured approach to identifying, synthesising and reporting evidence with due attention to equity. Given the population of interest within this review—disabled resident doctors—and the structural barriers they face within

the NHS, the PRISMA-Equity guidelines helped support rigour via a systematic search, and via prompting critical thought relating to extracted data. Specifically, the checklist guided attention to how disadvantage was defined, how population characteristics were reported and how findings were interpreted with regard to their relevance for advancing equity in medical career progression.

#### Inclusion and exclusion criteria

To support rigour, we established clear inclusion and exclusion criteria. Included sources met the following criteria: (1) they focused specifically on the career progression of disabled resident doctors or contained separable data relating to this group; (2) they comprised empirical research—qualitative or quantitative—as well as relevant policy documents or evaluative reports and (3) they were published in English. Studies were excluded if they did not include qualified doctors as a population, if they consisted only of opinion pieces without supporting data or if the full text was not available after reasonable efforts (including contacting the first author of the publication) to obtain it. There were no limits on the date of publication.

Although our inclusion criteria are restricted to empirical literature, we recognise that practical insights into the implementation of solutions may not always be presented within traditional study designs. As such, we included papers (including grey literature and evaluative reports), where these offered clearly described accounts of implemented interventions, programmes or policies relevant to disabled resident doctors' career progression. However, we excluded purely opinion-based or narrative perspective pieces (including 'top tip' guides) that lacked reference to specific implementation contexts or evaluative insight. This enabled us to maintain rigour but also to include examples of potential solutions.

#### **Data cultivation and analysis**

Data were collected into a structured data table (online supplemental material 3), recording citation, study type, context, population, methodology, key findings and relevance to the NHS. A content analysis<sup>27</sup> was then conducted using three domains aligned with the key research questions of this review to maintain focus: barriers, facilitators and solutions. Data within each domain were coded inductively to identify recurring concepts, which were then compared across studies and iteratively refined into higher-level categories. Coding and synthesis were carried out primarily by the lead author, with uncertain cases discussed and resolved collaboratively within the review team to support consistency. Themes were subsequently mapped to implications for the NHS. A basic, descriptive quantitative analysis was undertaken in Microsoft Excel of key study demographics and metadata. Quality appraisal was not undertaken, in line with established integrative review methodology<sup>28</sup> as an exploratory review type, and due to the inclusion of grey literature.



Table 1 Grey literature sources	
NHS websites—policies, reports and resources on workplace adjustments and support	NHS employers—disabled doctors network NHS England
Government websites—disability legislation	UK Department of Health and Social Care Equality and Human Rights Commission US Department of Justice Civil Rights Division, Americans with Disabilities Act (ADA) website Australian Human Rights Commission—Disability Discrimination Act Government of Canada, Accessible Canada Act New Zealand Ministry of Social Development, Disability Strategy European Disability Strategy European Agency for Fundamental Rights, Disability rights
Professional body guidelines	General Medical Council (GMC) British Medical Association (BMA) Association of American Medical Colleges (AAMC) Medical Deans Australia and New Zealand Royal College of Physicians and Surgeons of Canada Canadian Medical Association The College of Family Physicians of Canada
Regulatory and accreditation bodies	Health Education England (HEE) Care Quality Commission (CQC) Canadian Residency Accreditation Consortium/Canadian Excellence in Residency Accreditation (CanRAC/CanERA)
Charities and advocacy groups	Disability Rights UK Scope Docs with Disabilities initiative Autistic Doctors International (ADI) International Disability Alliance (IDA) American Association of People with Disabilities (AAPD) People with Disability Australia (PWDA) Council of Canadians with Disabilities Disability Advocacy Coalition in Medicine Medical Students with Disability and Chronic Illness Canadian Association of Physicians with Disabilities
Policy think tanks	The King's Fund Nuffield Trust Commonwealth Fund Canadian Institute for Health Information (CIHI) Grattan Institute European Observatory on Health Systems and Policies
Global reports—comparative	WHO International Labour Organisation (ILO) Organisation for Economic Co-operation and Development (OECD) iLibrary
Conference proceedings	ASME—Association for the Study of Medical Education AMEE—global network of medical education IAMSE—International Association for Medical Science Educators AAMC—Academy of American Medical Colleges ICAM—International Congress on Academic Medicine ANZAHPE—conference for health professional educators across Australia, New Zealand and the Asia-Pacific region
Grey literature databases	ProQuest Dissertations OpenGrey WorldCat Database Social Science Research Network
AMEE, The International Association for Health Profession Professional Educators; NHS, National Health Service.	s Education; ANZAHPE, Australian and New Zealand Association for Health



Table 2 Search strategy	
Concepts	Search string
Population: postgraduate disabled (ie, disabled resident doctors)	("disab* doctor*" OR "disab* physician*" OR "physician* with disab*" OR "doctor* with disab*" OR "medic* professional* with disab* " OR " disab* clinician*" OR "clinician* with disab*")
AND	
Career progression	("career* progress*" OR "career* advance*" OR "career* develop*" OR "career* trajectory")
AND	
Support initiative	("support initiative*" OR "support" OR "accommodation*" OR "reasonable adj5 adjustment*" OR "mentor*" OR "network*") OR ("barrier*" OR "obstacle*" OR "challenge*" OR "facilitator*" OR "enabler*" OR "success*" OR "best practice*" OR "good practice*")

#### Reflexivity

We adopted a constructivist research paradigm for this review,<sup>29</sup> acknowledging the active role of our own experiences and backgrounds in shaping data interpretation and reporting.<sup>30</sup> In acknowledgement of this, we reflected on our own relationships with clinical practice and disability throughout. We are a mixed team of clinical academic, ex-clinical and academic researchers. The lead author of the review is a multiply disabled ex-doctor, who chose to leave clinical practice as a result of issues with career progression stemming from disability. This positionality provided critical insight within the review process, particularly in identifying the more subtle, cumulative barriers experienced by disabled doctors.

#### **RESULTS**

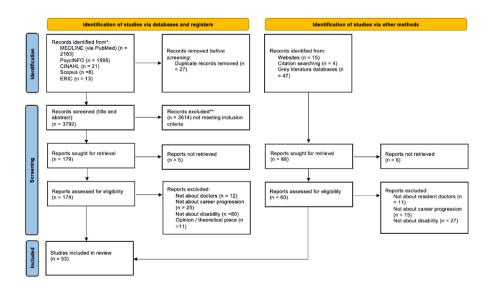
#### **Study characteristics**

53 sources met the inclusion criteria. Most originated from the USA (n=22) and UK (n=22), with fewer from Canada (n=6), Australia and New Zealand (n=1), Ireland (n=1), India (n=1) and cross-international contexts (n=1). Methods included survey analyses (n=13),

qualitative interview studies (n=11), other quantitative analyses (n=8), case studies (n=7) and policy documents or commentaries (n=19). Of the included sources, n=13 described specific programmes, interventions or implemented systemic practices relevant to career progression. An additional n=9 offered implementation-focused policy guidance or organisational strategies related to progression barriers, though not always describing a discrete evaluated programme.

The distribution of included studies by year reveals a noticeable increase in publications from 2020 onwards. Interestingly, 2018 marks the publication of key policy documents, for example, General Medical Council's (GMC) Welcomed and Valued, <sup>31</sup> Association of American Medical Colleges (AAMC) accessibility guidance. <sup>32</sup> 2024 and 2025 show accelerating momentum. See figure 2 for a graphical representation of publication trends over time.

Figure 3 demonstrates a shift in the type of published literature on disabled doctors' career progression. Empirical studies have increased steadily since 2020, while 2024 shows a marked increase in grey literature/policy, mostly associated with Canadian activity (Canadian



**Figure 1** PRISMA 2020 flow diagram, detailing search process and retrieved study numbers. Source: Page MJ, et al. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

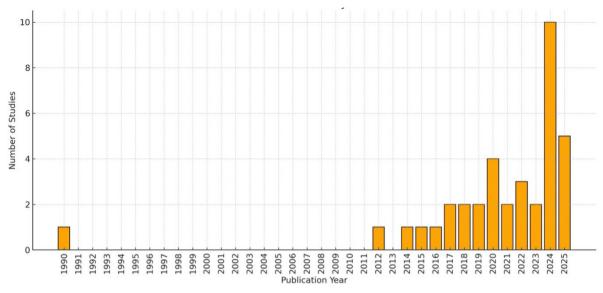


Figure 2 Number of included studies by year of publication.

Residency Accreditation Consortium (CanRAC)/Canadian Excellence in Residency Accreditation (CanERA) residency standards, Canadian Academy of Pediatric Dentistry (CAPD) mentorship programme, The Royal College of Physicians and Surgeons of Canada (RCPSC) exam accommodations). This pattern suggests growing research-based evidence and concurrent policy and programme development.

For a full list of included studies, including data on year, location, method, discipline and disability type(s), please see the table in online supplemental material 4.

Policy-oriented documents were mostly produced by professional bodies, including the GMC, <sup>31</sup> <sup>33</sup> <sup>34</sup> AAMC, <sup>32</sup> BMA, <sup>35</sup> <sup>36</sup> Australian Medical Council, <sup>37</sup> although there are some useful policy-based commentaries considering the implications of various policies and offering key critiques. <sup>38–40</sup> While the existence of policy documents

signals a rhetorical shift toward inclusion, few explicitly centre disabled practitioners' lived experiences. While documents, for example, the GMC's Welcomed and Valued guidance, include perspectives from disabled doctors, these are typically presented as illustrative rather than epistemic. In other words, they seem to be positioned to humanise or legitimise policy rather than to challenge its premises or to guide structural reform.

## Systemic and structural barriers to career progression for disabled doctors

Included literature consistently highlighted systemic and structural barriers as central to the challenges faced by disabled resident doctors in progressing through training into senior roles. These barriers manifested in three interconnected ways: entrenched ableism within institutional cultures and policies; the ongoing burden placed

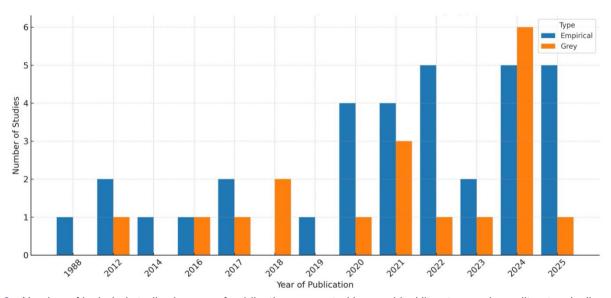


Figure 3 Number of included studies by year of publication, separated by empirical literature and grey literature/policy documents.



on doctors to disclose and self-advocate for support in the face of stigma and measurable patterns of differential attainment in examinations and assessments. These manifestations reflect structural features of medical education and workplace systems that collectively constrain disabled doctors' opportunities for equitable career progression.

#### Ableism and institutional exclusion

Interestingly, while perceptions of the NHS as an equal opportunity employer are improving among doctors, there is lower agreement that it is an equal opportunity employer for disability compared with gender and ethnicity. Aligned with this observation, numerous studies identified ableism (both interpersonal and structural) as a persistent barrier in training, assessment and progression.

Akeyfeature of this ableism is that medical education and workplace systems are designed around narrow, normative assumptions of ability, meaning disabled doctors are expected to adapt themselves to structures not built with their needs in mind. Across the literature, flexibility was frequently absent, and disabled doctors reported having to work hard to fit into systems not designed with their needs in mind. 48-50 For example, in a UK survey study of foundation doctors (graduates in their first 2 years of practice post-qualification) requiring adjustments for dyslexia, 92% reported that their NHS Trusts provided no formal support at all, with 88% also reporting a lack of support from their foundation schools.<sup>51</sup> Dyslexic doctors have also been found to encounter 'stonewalling' from faculty regarding adaptations to assessment processes. 43 Autistic clinicians described rigid expectations regarding interaction styles and workplace behaviours that did not accommodate neurodivergent ways of working,<sup>50</sup> and deaf and hard of hearing doctors reported inadequate communication accommodations, with poor institutional readiness to provide transcription or other supports.<sup>52</sup> Disabled doctors also reported a lack of options for phased returns to work or adjusted clinical roles, <sup>49</sup> further reflecting institutional inflexibility.

These experiences were often compounded by stigma, suspicion or minimisation of support needs by colleagues or managers. <sup>46 47 53</sup> Together, these findings illustrate how institutional structures and cultural norms create barriers that reflect embedded ableism.

#### Navigating the burden of disclosure and self-advocacy

Disclosure of disability was fraught. Doctors often did not disclose their disability—32% of autistic doctors in one study did not tell their supervisor, 48 while 50.6% of disabled residents in a recent US study, across disability types, did not disclose. 53 Disclosure was perceived by doctors as carrying significant risks of stigma and career harm, including being seen as 'less capable' or being penalised in competitive processes such as specialty recruitment. 19 53-56 Institutional disclosure processes often reinforced these concerns: many programmes maintained disclosure arrangements—that is, structures

governing when, how and to whom residents must disclose in order to access adjustments—that were inconsistent with formal inclusion guidance. For example, only 7% of US family medicine residencies had an active recruitment plan for disabled residents, and just 25% provided faculty training on disability inclusion, despite requirements under American College of Graduate Medical Education guidance and protections afforded by the Americans with Disabilities Act. <sup>57</sup> Such variability in disclosure practices and institutional preparedness may further discourage doctors from disclosing, sustaining cycles of underrecognition and exclusion.

Disabled doctors often carried the burden of repeatedly advocating for adjustments, with little institutional guidance. <sup>19 43 48</sup> Several papers noted that support systems were reactive rather than anticipatory, with responsibility placed on individuals to prove need, rather than institutions to anticipate access. <sup>52 58-63</sup> This aligns with wider critiques of individualised models of disability and underscores systemic inaccessibility. <sup>64</sup> This is important, as other studies included in this review highlight how residents with unmet programme access needs are more likely to experience burnout and depressive symptoms, <sup>55 65-67</sup> while one in four autistic doctors report having attempted to take their own life, a risk which is heightened when doctors view being autistic as a disorder, rather than a disability. <sup>48</sup>

#### Differential attainment

Quantitative studies have shown patterns of disadvantage, with likely impacts on career progression (though this logic is assumed, rather than demonstrated by the studies included in this review). Large-scale analyses<sup>67–69</sup> consistently found that candidates who disclosed disabilities performed significantly worse in high-stakes postgraduate exams, including written MCQ-based assessments and surgical licensing exams. While Asghar et al<sup>69</sup> focused on dyslexia, other studies included candidates with a range of disclosed disabilities, though typically not disaggregated by type. Explanations for these patterns remain underexplored. One study, focused on UK postgraduate surgical examinations, 68 notes that differential pass rates for disabled candidates are influenced by prior academic performance, suggesting that differential attainment begins at an early stage of education and persists. However, most studies did not explicitly analyse how exam design or format might contribute to differential attainment.

#### **Facilitators of career progression for disabled doctors**

Most of the identified literature explores exclusion. A much smaller body of work highlights conditions under which disabled doctors can flourish. Here, we report on common themes across studies which consider career progression support or solutions, including the importance of relationships with more senior advocates, identity-affirming environments and universal systemic design.



#### Positive supervisor relationships and mentorship

Particularly across qualitative studies, informal mentorship and the presence of affirming supervisors were identified as protective factors.  $^{31\,42\,59\,60}$ 

Positive relationships were sometimes depended on to compensate for absent or inadequate formal adjustments. Supervisors, who were readily available for support, demonstrated flexible thinking, advocated for their trainees and had access to clear information regarding accommodation systems enabled disabled doctors to progress with greater confidence and stability. Related policies draw attention to the importance of a positive, reciprocal relationship between supervisor and supervisee, which involves shared responsibility. However, educators report a lack of training, awareness and support, which makes this difficult, and they find themselves often relying on generalisations in their encounters with residents.

#### Belonging and identity affirmation

Several studies identified the transformative impact of working in diverse teams, accessing peer networks or occupying leadership roles as a disabled practitioner. <sup>39</sup> <sup>40</sup> <sup>46</sup> <sup>48</sup> Participation in advocacy and peer groups was described by some as a form of 'post-traumatic growth', <sup>46</sup> offering not only solidarity but also renewed meaning within one's professional life through connection and a sense of shared purpose. <sup>48</sup> The visibility of disabled role models, particularly in senior roles, although uncommon, <sup>63</sup> <sup>70</sup> was described as affirming, interrupting dominant norms of what a doctor 'should' look like or be capable of. <sup>39</sup> <sup>55</sup>

#### **Organisational change**

Organisational change emerged as a central focus in a minority of sources. These sources emphasised the importance of transforming systems, processes and institutional culture to enable equitable career progression for disabled doctors. While the previous section addressed facilitators of progression at interpersonal and relational levels, this section examines evidence relating to broader organisational design, policy and quality improvement approaches.

#### Systems-level change and universal design

Several implementation-focused case studies and policy evaluations <sup>34</sup> <sup>39</sup> <sup>40</sup> <sup>50</sup> <sup>51</sup> <sup>59</sup> <sup>63</sup> <sup>64</sup> <sup>71</sup> <sup>72</sup> described shifts towards more proactive forms of inclusion at a systems level, such as adopting a universal design approach to education and training so that environments are more accessible to all, <sup>64</sup> screening all residents by default for dyslexia so earlier support can be offered to those undiagnosed, <sup>18</sup> and the apparent positive impact of diversity, equity and inclusion specific faculty roles within residency programmes on inclusion. <sup>19</sup> Recent Canadian policies illustrate system levers at scale: the CanRAC/CanERA (2024) accreditation standards embed expectations for wellness, fair treatment and tailored learning <sup>73</sup>; the RCPSC (2024) exam accommodation process clarifies operational pathways for

certification<sup>74</sup> and the CAPD mentorship programme<sup>72</sup> (2024) builds national peer/mentor networks for disabled trainees. Case studies also described practices useful at an individual level, for example, accommodations for autistic doctors,<sup>50</sup> the use of transcription software for Deaf and hard of hearing individuals. 52 58 UK policy, for example, the NHS Workforce Disability Equality Standard, <sup>70</sup> describes interventions including communication campaigns to promote disability disclosure, the establishment of disability staff networks, inclusive recruitment practices and staff e-learning relating to disability. However, most specific interventions recommended are not specific to disabled doctors or to supporting career progression. As a professional group experiencing unique pressures and with complex career paths, it is important that solutions are tailored for, and meet, disabled doctors' specific needs.<sup>75</sup>

Robust data collection has been repeatedly called for 70 71 76 to enable monitoring of disability representation, evaluate the effectiveness of inclusion initiatives and inform improvements. However, few studies reported on sustained data collection or demonstrated how equity metrics were being embedded into routine quality assurance processes. Further, despite many changes seeming to offer conceptual promise, initiatives were rarely subject to formal evaluation, and there was little written regarding implementation that would assist wider change uptake. Impact remains unclear, pointing to a disconnect between theoretical commitments to inclusion and the operationalisation of systemic change.

#### Embedding equity into organisational culture

A number of sources argued for mainstreaming disability equity into quality assurance mechanisms, technical standards, workforce strategy and leadership development. 35 36 63 70 The BMA (UK doctors' union), for example, highlights how absence management processes locally should be flexible, so that disabled doctors' disabilityrelated absences are recorded separately from sickness absence<sup>36</sup> and do not trigger advanced monitoring or disciplinary action. Unfortunately, their recent work using Freedom of Information requests reveals how this is the case for less than a quarter of employing organisations across the UK.<sup>36</sup> There are other gaps in organisational practices which make embedding equity for disabled doctors a challenge, for example, lack of disabled leave in absence policies, variability in the offer of paid disability leave and a lack of paid roles (only present within 12% of organisations) to support disabled doctors specifically (as distinct from general Equality, diversity and inclusion (EDI), or professional support unit staff).<sup>3</sup>

Singh and Meeks<sup>64</sup> argue that disability inclusion should be understood as a matter of systemic quality improvement, not a compliance issue. Drawing on Deming's framework for quality management, they emphasise that embedding disability equity requires institutions to develop constancy of purpose, instigate leadership for change and improve processes continually. Their model



highlights how ad hoc or champion-led approaches often lead to fragility, where inclusion efforts dissipate with staff turnover. Instead, they propose a shift to systemwide, anticipatory design, where disability is treated as a normative form of human variation and organisational processes are actively built to include it.

Finally, some sources explicitly draw attention to how being multiply minoritised (eg, disabled and black) exacerbates experiences of exclusion, which highlights the importance of intersectional approaches to organisational change. 34 77 Intersectional perspectives were not commonly explicitly adopted within the literature of this review, and there was limited evidence of how solutions accounted for intersectional experiences of medical training.

#### **DISCUSSION**

This integrative review presents a comprehensive synthesis of empirical and grey literature on disabled doctors' career progression, highlighting the structural, cultural and procedural barriers that persist for disabled doctors, despite long-standing policy commitments internationally to equity. This review adds to the expanding literature base on disabled doctors' experiences by drawing together previously fragmented evidence to identify recurring processes of exclusion, conditions that support inclusion and areas of emerging, contemporary good practice. While previous studies have documented the exclusion of disabled trainees, 40 43 this review adds new insight by synthesising evidence across national contexts to map common challenges and assess the potential relevance of identified practices for the UK NHS.

This review's findings confirm that disabled doctors encounter entrenched structural barriers to career progression, underpinned by ableist institutional cultures and individualised models of support. Haccessible assessments, had been inadequate adjustments, had been spread stigma had been and disclosure-related barriers had barriers had barriers and systemic. These barriers not only harm disabled doctors' individual careers but also undermine the inclusion and sustainability of medical workforces.

Addressing these significant barriers requires moving beyond individual-level interventions towards systemic change. Although most literature remains problem-focused, this review has identified some facilitators of career progression for disabled doctors. Chief among these is support from affirming, knowledgeable physicians who demonstrate flexibility and advocacy. However, senior support is uneven, often informal and sometimes wholly absent. Where supervisors are trained and equipped to support disclosure and adjustment processes, outcomes appear more positive. A recent scoping review focused on strategies to increase accessibility for disabled health professions students highlights the importance of education, critical reflection and culture change for health professions educators and staff

in relation to disability.<sup>78</sup> In addition, ensuring faculty are granted appropriate time to complete training, and to engage in a relational approach to supervision, is a key enabler.<sup>78</sup> This review highlights the transferability of this recommendation from the undergraduate to the postgraduate context.

Only a minority of sources described evaluated interventions, which highlights a significant gap in knowledge regarding supporting disabled doctors' careers. Consistent with our analysis, a recent systematic review restricted to dyslexia also calls for more postgraduate evidence and for evaluations that specifically target attainment gaps.<sup>80</sup> Several international recommendations and interventions may hold promise for NHS contexts. The application of quality improvement principles to disability inclusion efforts, <sup>64</sup> pre-emptive screening for specific learning difficulties<sup>18</sup> and developing functional (rather than organic) technical standards, that is, focusing on what tasks must be achieved rather than how they must be performed, to avoid excluding those who use assistive tools or alternative methods, <sup>63</sup> represents system-level interventions that lessen the need for individual self-advocacy and reduce the burden placed on disabled doctors. Yet, such initiatives seem to be rarely implemented at scale, and robust evaluation, including of their implementation, remains limited.

While national legal frameworks governing disability rights and equality vary—for example, the UK is governed by the Equality Act 2010, while the USA is bound to the Americans with Disabilities Act—many structural features of postgraduate medical training and workforce progression (eg, standardised assessments, hierarchical progression pathways) remain comparable across international contexts. For instance, findings from US family medicine residency programmes on non-compliant disclosure structures<sup>57</sup> echo UK challenges around opaque or inconsistent adjustments policies.<sup>50</sup> Similarly, calls for improved supervisor training and clear escalation routes<sup>31</sup> 60 are directly applicable to NHS postgraduate training. Interestingly, discussions related to embedding quality improvement principles into disability equity are under-represented in UK literature on disability in medicine, and this may offer promises for future exploration in both research and practical, systemic change. Disability workforce equity goals, for example, could be embedded within existing quality governance processes, including Board Assurance Frameworks and clinical governance cycles. Quality improvement cycles could be used to iteratively improve adjustment processes and monitor outcomes related to disclosure, retention and progression. Currently, these approaches are largely absent from the NHS disability strategy.

From a policy perspective, reforms need to consider how to go beyond rhetorical commitments and toward embedding disability equity structurally within NHS organisational infrastructure. Current policy efforts, such as the Workforce Disability Equality Standard (which requires NHS organisations to collect and publish



annual data on disability representation, workplace experiences and equity metrics), offer an important foundation but often seem under-implemented. Future reforms could consider institutionalising anticipatory systems for disclosure and adjustment, for example, by creating standardised, supportive processes that do not rely on individual self-advocacy. In addition, national funding mechanisms should support the creation and long-term sustainability of peer networks, mentoring schemes and disability staff roles. Finally, building inclusive leadership pathways that centre the expertise of disabled doctors is key for creating organisational culture change. Such reforms would recognise disabled doctors not as passive recipients of accommodations but as vital contributors and leaders in driving systemic change.

#### **Limitations**

This integrative review has several limitations that should be acknowledged. First, as is common in integrative reviews, the search strategy prioritised breadth over depth to map the current state of knowledge, which may have led to the inclusion of conceptually underdeveloped or descriptive studies. As an integrative review, it does not employ systematic review methods for data analysis and synthesis, and we did not undertake formal quality appraisal of included studies; the quality of evidence was, therefore, not used as part of our inclusion criteria. The review is also limited by the characteristics of the available literature. The evidence base contains many US studies, with few focused on evaluating interventions or systemic enablers. This constrains the extent to which UK-specific recommendations can be fully evidence-based and indicates a need for future research to focus on generating contextually rich, UK-based data that captures the lived experiences of disabled doctors and evaluates the effectiveness of relevant support interventions. Further, literature was concentrated in the Global North, limiting the scope of perspectives included. This reflects both the language limits of our review (English) and the scope of indexed databases, which tend to under-represent Global South scholarship. Intersectional analyses were also lacking,<sup>34 77</sup> and future research should consider more consistently how disability interacts with other forms of minoritisation.

#### **CONCLUSION**

Disabled doctors face ongoing structural, cultural and procedural barriers to career progression. These are because of inaccessible systems, inadequate adjustments and a persistent culture of ableism. Although these challenges are increasingly well-documented across international contexts, solutions remain inconsistently theorised, patchily implemented and under-evaluated. Although some promising practices are increasingly identified by the literature, formal evidence of their effectiveness remains limited, particularly within the context of the NHS. To build a sustainable and representative doctor

workforce, NHS policy and workforce planning must not only remove the barriers to progression for disabled doctors but also embed meaningful inclusion within the structures and cultures which shape medical careers.

**Acknowledgements** Thans to the patient, public and staff representatives who participated in the community inclusion and engagement work related to this review.

Contributors MELB contributed to the conceptualisation, data collection, analysis, writing first draft and revising drafts. GV and BB contributed to the conceptualisation, data collection, analysis, revising drafts and approval prior to submission. GV as the senior author is the guarantor of the work. After the manuscript was written, it was fed into ChatGPT, and we used the following prompt to generate an article summary 'summarise this research article in 300 words, in academic abstract format'. This provided a draft for the abstract of the manuscript, which was subsequently edited for tone, flow, accuracy and to fit the BMJ Open abstract subheadings.

**Funding** None specific to resourcing for this review. MELB's work 2024–2025 was supported by the NIHR Pre-application Support Fund.

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

**Data availability statement** Data sharing not applicable as no datasets generated and/or analysed for this study. No new data were generated.

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