

The Scottish Landscape: Mapping Research on Widening Participation to Medicine



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Mapping Approach

A structured research mapping protocol was used to identify research relating to WP to medicine across Scotland. Searches included academic publications, doctoral theses, pre-prints, and grey literature sourced via search engines, as well as publicly accessible databases and repositories. Undergraduate WP research conducted in Scottish contexts and postgraduate WP research conducted across the UK were included. To reflect the current policy landscape, undergraduate literature published from 2016 onwards and postgraduate literature published from 2010 onwards were eligible for inclusion.

Key Findings

In total, 41 research materials were identified and analysed thematically using an inductive coding approach (Appendix). Research materials are presented in accordance with stage, methodological and broader thematical trends below.

Stage trends

Research was mapped across four stages of the medical career continuum (Table 1).

Table 1. Stage trends

Stage	Number of studies
Pre-entry	12
Pre-entry/Undergraduate	2
Undergraduate	15
Postgraduate	11
Career Continuum	1

Note: "Pre-entry/Undergraduate" refers to two studies that report on student experiences of pre-entry activities and their progression into medical school (i.e., undergraduate studies).

Methodological trends

Mixed methods, qualitative and quantitative approaches were utilised across research materials (Table 2). Methods used varied across stages: **pre-entry research** was predominantly qualitative; **undergraduate research** primarily used a mix of qualitative and mixed method approaches; **postgraduate research** was predominantly quantitative, mostly drawing on UKMED datasets; **career continuum research** was extremely limited.

Table 2. Methodological trends

Stage	Mixed Method	Qualitative	Quantitative
Pre-entry	0	9	2
Pre-entry/Undergraduate	0	2	0
Undergraduate	5	8	2
Postgraduate	1	2	8
Career Continuum	0	0	1

Note: “Pre-entry/Undergraduate” refers to two studies that report on student experiences of pre-entry activities and their progression into medical school (i.e., undergraduate studies).

Thematic trends

Seven themes (Table 3) were identified within the 41 research materials and included: (i) Access to resources and support; (ii) Applications and admissions; (iii) Bridging the attainment gap; (iv) Pre-medical programme evaluation; (v) Perceptions, aspirations and identity; (vi) Post-graduate outcomes; (vii) Structural inequality (systemic processes).

Table 3. Thematic trends

Themes	Subthemes	Summary	Stage
Access to resources and support	Access to support interventions Contextual constraints on support access Gatekeeping and mediated access to opportunities	Research explored how WP students access support before and during medical school. This included outreach and support programmes, barriers to accessing resources, and the influence of schools, teachers, and wider social networks.	Pre-entry Undergraduate
Applications and admissions	Demographic stratification in selection outcomes Priorities and tensions in selection processes	Studies examined how admissions and selection processes operate across medical education. Key topics included differential selection outcomes between demographic groups, contextual admissions, and stakeholder views on fairness and meritocracy.	Pre-entry Postgraduate
Bridging the attainment gap	Identification and mitigation of attainment gaps Patterns in assessment outcomes	Research explored differences in academic outcomes between WP students and their peers, which included barriers to attainment, assessment outcomes, and factors associated with differential attainment.	Undergraduate Postgraduate
Pre-med programme evaluation	Limitations and barriers despite access Mechanisms underpinning programme success Outcomes of programmes Transition and progression through pre-med pathways	A substantial body of work focused on gateway and pre-med programmes. Research examined student experiences, programme effectiveness, transition into medical school, as well as academic and postgraduate outcomes.	Undergraduate Postgraduate
Perceptions, aspirations and identity	Navigating medical culture Reframing disadvantage Thoughts and decisions about medical careers	Studies explored how WP students experience medicine and develop a sense of belonging. This included professional identity formation, navigating medical culture, perceptions of medicine and career choice, and strengths and assets brought by WP students.	Pre-entry Undergraduate Postgraduate
Post-graduate outcomes	Influences on career destinations Workforce outcomes	A small number of studies examined WP beyond medical school, which included career destinations and GP workforce distribution.	Postgraduate Career continuum
Structural inequality (systemic processes)	Institutional and policy drivers of inequality Social stratification and value systems in medicine	Research highlighted wider institutional and cultural influences on participation and progression. Key topics included meritocracy and fairness, socioeconomic status and professional culture, and systemic barriers within medical education.	Pre-entry Undergraduate Postgraduate

Appendix. A full list of 41 identified research materials contributing to theme development

Stage	Citation	Method	Date
Pre-entry	Alexander, K., Nicholson, S., & Cleland, J. (2021). "It's going to be hard you know..." Teachers' perceived role in widening access to medicine. <i>Advances in Health Sciences Education</i> , 26(1), 277-296. https://doi.org/10.1007/s10459-020-09984-9	Qualitative	2021
Pre-entry/Undergraduate	Coyle, M., Bullen, J., Poobalan, A., Sandover, S., & Cleland, J. (2024). Follow the policy: An actor network theory study of widening participation to medicine in two countries. <i>Medical Education</i> , 58(3), 288-298. https://doi.org/10.1111/medu.15178	Qualitative	2024
Pre-entry	Krstic, C., Fletcher, E., Owen, C., Curtis, S., Garrud, P., & Nicholls, G. (2025). Perceptions, barriers, and career priorities among prospective medical school applicants in Scotland. <i>BMC Medical Education</i> . https://doi.org/10.1186/s12909-025-08218-z	Quantitative	2025
Pre-entry	Mcmanus, H., Lawrence, W., Scott, C., Cruickshank, C., & Dunnigan, C. (2023). 114 Comparison of online and in-person widening participation interventions for high school pupils applying to study medicine at university. https://adc.bmj.com/content/108/Suppl_2/A80.2	Quantitative	2023
Pre-entry	Smith, K. G., & Cleland, J. (2020). Drastic times need drastic measures: COVID-19 and widening access to medicine. <i>Journal of the Royal College of Physicians of Edinburgh</i> , 50(4), 431-435. https://doi.org/10.4997/jrcpe.2020.419	Qualitative	2020
Pre-entry	Wilson, A., & Hunter, K. (2023). Access and emergence: A case study of a working-class journey into studying medicine. <i>Scottish Educational Review</i> , 54(2), 194-215. https://doi.org/10.1163/27730840-20231009	Qualitative	2023
Pre-entry	Ball, R., Alexander, K., & Cleland, J. (2020). "The biggest barrier was my own self": the role of social comparison in non-traditional students' journey to medicine. <i>Perspectives on Medical Education</i> , 9(3), 147-156. https://doi.org/10.1007/s40037-020-00580-6	Qualitative	2020
Pre-entry	Alexander, K., Cleland, J., & Nicholson, S. (2019). Bridging the cultural divide? Exploring school pupils' perceptions of medicine. <i>Medical Education</i> , 53(6), 571-583. https://doi.org/10.1111/medu.13805	Qualitative	2019
Pre-entry	Owen, L.E., Anderson, S.A. & Dowell, J.S. Free text adversity statements as part of a contextualised admissions process: a qualitative analysis. <i>BMC Med Educ</i> 18, 58 (2018). https://doi.org/10.1186/s12909-018-1158-6	Qualitative	2018
Pre-entry	Rees, E. L. (2025). Medical school choice in the United Kingdom (Doctoral dissertation, UCL (University College London)). https://discovery.ucl.ac.uk/id/eprint/10212319	Qualitative	2025
Pre-entry	Sosu, E. M., Smith, L. N., Santoro, N., & McKendry, S. (2018). Addressing socioeconomic inequality in access to university education: an analysis of synergies and tensions in Scottish policy. <i>Palgrave Communications</i> , 4(1) https://doi.org/10.1057/s41599-018-0206-5	Qualitative	2018

Pre-entry	PHS, 2023. NHS Grampian: Widening Participation Education Programme Case Study, PHS: Public Health Scotland. United Kingdom. Retrieved from https://coilink.org/20.500.12592/2bw4tjx	NA	2023
Pre-entry	Alexander, K. (2018). Perceptions, discourses and values : exploring how key stakeholders construct, negotiate and enact widening access to medical school (Order No. 27798088). Available from Dissertations & Theses @ University of Aberdeen; ProQuest Dissertations & Theses A&I. (2342501928). https://www.proquest.com/dissertations-theses/perceptions-discourses-values-exploring-how-key/docview/2342501928/se-2	Qualitative	2018
Pre-entry/Undergraduate	Simpson, A., Hope, D., Harden, J., Marson, L., & Tallentire, V. (2025). Equity Beyond Entry: A Capability Approach to Understanding Widening Participation in Medical Education. Perspectives on Medical Education, 14(1), 871. https://doi.org/10.5334/pme.2071	Qualitative	2025
Undergraduate	Linn, A., Browitt, A., Ferguson, E., & Miller, L. (2023). Improving Equity of Access to Medical School-Perspectives From a New Foundation Year Access to Medicine Programme. Improving Equity of Access to Medical School - Perspectives From a New Foundation Year Access to Medicine Programme	Qualitative	2023
Undergraduate	CRER, 2021. NHS Education for Scotland: Equality and Diversity Report 2021-2025, CRER: Coalition for Racial Equality and Rights. United Kingdom. Retrieved from Equality Progress Report	Quantitative	2021
Undergraduate	United Kingdom : Scottish Government : Widening access to medicine. (2018). In MENA Report. Disco Digital Media, Inc. Widening access to medicine - gov.scot	Quantitative	2018
Undergraduate	Gibson Smith, K., Lumsden, C., Patey, R., Davies, S. (2020). GATEWAY TO MEDICINE REPORT 2020 UNIVERSITY OF ABERDEEN	Mixed Method	2020
Undergraduate	Gibson Smith, K. (2021). GATEWAY TO MEDICINE REPORT 2021 UNIVERSITY OF ABERDEEN	Mixed Method	2021
Undergraduate	Gibson Smith, K. (2023). GATEWAY TO MEDICINE REPORT 2023 UNIVERSITY OF ABERDEEN	Mixed Method	2023
Undergraduate	Gibson Smith, K. (2024). GATEWAY TO MEDICINE REPORT 2024 UNIVERSITY OF ABERDEEN	Mixed Method	2024
Undergraduate	Gibson Smith, K. (2025). GATEWAY TO MEDICINE REPORT 2025 UNIVERSITY OF ABERDEEN	Mixed Method	2025
Undergraduate	Coyle, M., Bullen, J., Sandover, S., Poobalan, A., & Cleland, J. (2025). Inclusion in an exclusive world? A two-country comparison of widening participation in medicine. Advances in Health Sciences Education, 1-19. https://doi.org/10.1007/s10459-025-10470-3	Qualitative	2025
Undergraduate	Smith, K. G., Alexander, K., & Cleland, J. (2021). Opening up the black box of a gateway to medicine programme: a realist evaluation. BMJ open, 11(7), e049993. https://doi.org/10.1136/bmjopen-2021-049993	Qualitative	2021
Undergraduate	Smith, K. G., Cleland, J. A., Walker, K., Lumsden, C., & Laidlaw, A. (2025). "I'd keep going until somebody said no and nobody ever said no": exploring identity-strengths amongst medical	Qualitative	2025

	students from widening participation backgrounds. Frontiers in medicine, 12, 1530738. https://doi.org/10.3389/fmed.2025.1530738		
Undergraduate	Gibson Smith, K., Ferguson, E., Gouveia, K., Walker, K. A., Lumsden, C., Poobalan, A., & Laidlaw, A. (2025). Surviving and Thriving in Medicine: Developing Theory-Based Interventions for Students From Widening Access Backgrounds. The Clinical Teacher, 22(3), e70076. https://doi.org/10.1111/tct.70076	Qualitative	2025
Undergraduate	Mozley, H. (2023). Bursting bubbles: Exploring discourses, perceptions and experiences of widening participation in two UK medical schools (Doctoral dissertation, University of Southampton). https://doi.org/10.5258/SOTON/D2649	Qualitative	2023
Undergraduate	Sartania, N., & McLean, A. (2017). Limits to Widening Participation Outreach: Both Academic and Non-Academic Factors Limit the Progression of Students from Deprived Postcode Areas. Limits to Widening Participation Outreach: Both Academic and Non-Academic Factors Limit the Progression of Students from Deprived Postcode Areas	Qualitative	2017
Undergraduate	Donna Quinn's doctoral thesis - Improving Fairness in Scottish Undergraduate Medical Education	Qualitative	In prep.
Postgraduate	Kumwenda, B., Cleland, J.A., Prescott, G.J. et al. Geographical mobility of UK trainee doctors, from family home to first job: a national cohort study. BMC Med Educ 18, 314 (2018). https://doi.org/10.1186/s12909-018-1414-9	Quantitative	2018
Postgraduate	Garrud, P. (2011). Who applies and who gets admitted to UK graduate entry medicine? - an analysis of UK admission statistics. BMC Medical Education, 11, 71. https://doi.org/10.1186/1472-6920-11-71	Quantitative	2011
Postgraduate	Kumwenda, B., Cleland, J. A., Prescott, G. J., Walker, K., & Johnston, P. W. (2018). Relationship between sociodemographic factors and selection into UK postgraduate medical training programmes: a national cohort study. BMJ Open, 8(6)https://doi.org/10.1136/bmjopen-2017-021329	Quantitative	2018
Postgraduate	Kumwenda, B., Cleland, J., Prescott, G., Walker, K., & Johnston, P. (2019). Relationship between sociodemographic factors and specialty destination of UK trainee doctors: a national cohort study. BMJ open, 9(3), e026961. https://doi.org/10.1136/bmjopen-2018-026961	Quantitative	2019
Postgraduate	Cleland, J., Prescott, G., Walker, K., Johnston, P., & Kumwenda, B. (2019). Are there differences between those doctors who apply for a training post in Foundation Year 2 and those who take time out of the training pathway? A UK multicohort study. BMJ open, 9(11), https://doi.org/10.1136/bmjopen-2019-032021	Quantitative	2019
Postgraduate	Cronin, T., Gendy, D., & Johnston, J. L. (2025). What impact does widening participation to medicine have on the medical workforce in the UK: a scoping review. Education for Primary Care, 36(1–2), 6–15. https://doi.org/10.1080/14739879.2024.2426130	Mixed Method	2025

Postgraduate	Elmansouri, A., Curtis, S., Nursaw, C. et al. How do the post-graduation outcomes of students from gateway courses compare to those from standard entry medicine courses at the same medical schools?. BMC Med Educ 23, 298 (2023). https://doi.org/10.1186/s12909-023-04179-3	Quantitative	2023
Postgraduate	Ashley, L., & McDonald, I. (2024). When the Penny Drops: Understanding how social class influences speciality careers in the UK medical profession. Social Science & Medicine, 348, 116747. https://doi.org/10.1016/j.socscimed.2024.116747	Qualitative	2024
Postgraduate	Ashley, L. (2025), The Golden Ticket? Widening Access in UK Medicine and the Making of an Emotional Proletariat. Sociol Health Illn, 47:e13860. https://doi.org/10.1111/1467-9566.13860	Qualitative	2025
Postgraduate	Ellis, R., Knapton, A., Cannon, J. et al. Differential attainment in UK postgraduate medical examinations: examining the relationship between sociodemographic differences and examination performance. BMC Med 23, 216 (2025). https://doi.org/10.1186/s12916-025-04034-w	Quantitative	2025
Postgraduate	Johnston, P.W., Vieira, R., Cameron, I.M. et al. Big data analysis: examination of the relationship between candidates' sociodemographic characteristics and performance in the UK's Membership of the Royal College of Physicians Part 1 examination. Adv in Health Sci Educ 30, 53–68 (2025). https://doi.org/10.1007/s10459-024-10406-3	Quantitative	2025
Career Continuum	Dowell, J., Norbury, M., Steven, K., & Guthrie, B. (2015). Widening access to medicine may improve general practitioner recruitment in deprived and rural communities: survey of GP origins and current place of work. BMC medical education, 15(1), 165. https://doi.org/10.1186/s12909-015-0445-8	Quantitative	2015