

1 **Supplemental Table 1- PRISMA 2020 Checklist**

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Page 1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Page 3
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Page 5-6
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Page 6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Page 7
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Page 6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Appendix 2
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Page 7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Page 8
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Page 7
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Page 8
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Page 8
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Page 8
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Page 8
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Page 8

Section and Topic	Item #	Checklist item	Location where item is reported
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Page 8
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Page 8
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Page 8
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Page 8
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Figure 1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Appendix 3
Study characteristics	17	Cite each included study and present its characteristics.	Table 1
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Table 1
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Table 1
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Table 1, Figure 2
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Table 2
DISCUSSION			

Section and Topic	Item #	Checklist item	Location where item is reported
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Page 26-31
	23b	Discuss any limitations of the evidence included in the review.	Page 37
	23c	Discuss any limitations of the review processes used.	Page 37
	23d	Discuss implications of the results for practice, policy, and future research.	Page 38
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	N/A
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Page 6
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Page 6
Competing interests	26	Declare any competing interests of review authors.	Page 40
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Page 40

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Supplemental data 2:**Database(s) Searched**

Medline (Dialog): 1946 – 2 February 2024

Embase (Dialog): 1947 – 2 February 2024

The Cochrane Library: 1996 – 2 February 2024

Summary of the Search

Evaluation of equality, diversity and inclusion interventions/training provided to health(care) personnel.

Search Parameters

All Years

All Languages

All Study/Publication Types (e.g. Conference Abstracts Applicable to Embase and the Cochrane Library Only)

Overview

For **Medline and Embase**, the search strategy was devised using four main concepts: (1) Equality, diversity and inclusion (EDI) (including synonyms and related terms such as 'anti-racism', 'inclusive leadership', 'cultural diversity' and 'cultural competency'; the latter two appear to be used for search terms to describe EDI in earlier studies) -AND- (2) Health(care) personnel (including broad terms such as 'health(care) professionals/staff/workers/providers', 'doctors' and 'nurses') -AND- (3) Training (as a broad concept; including related terms such as 'education', 'professional development' and 'interventions') -AND- (4) Evaluation (including synonyms and related terms such as 'effect', 'effectiveness', 'efficacy', 'outcomes' and 'impact').

Both thesaurus terms (i.e. MeSH terms in Medline and EMB terms in Embase), where available and textwords (i.e. words or phrases appearing in the Title, Abstract or Author Keywords fields of references) were identified to describe each concept. It's not possible to search for these terms in the full text of articles using these databases.

A total of 4,804 references were retrieved representing the final results of this search. These are distributed across two search sets – set S23 (3,247 references) covers the publication date range 2014-2024 and set S24 (1,557 references) covers pre-2014 published articles.

In the **Cochrane Library databases**, the search strategy devised was based on the Medline search.

Search Strategies:**Databases:** Embase®, MEDLINE®

(search strategy run and results downloaded on 19 April 2024)

Set#	Searched for	Results
S1	MESH.EXACT("Diversity, Equity, Inclusion") OR MESH.EXACT("Antiracism") OR MESH.EXACT("Cultural Diversity") OR MESH.EXACT("Cultural Competency")	19216*
S2	EMB.EXACT("diversity, equity and inclusion") OR EMB.EXACT("antiracism") OR EMB.EXACT("cultural diversity") OR EMB.EXACT("cultural competence") OR EMB.EXACT("cultural sensitivity")	14766*
S3	ti((equality or equity or equitable) near/5 (diversity or diverse) near/5 (inclusion or inclusivity or inclusiveness or inclusive))	1064°
S4	ab((equality or equity or equitable) near/5 (diversity or diverse) near/5 (inclusion or inclusivity or inclusiveness or inclusive))	1776°
S5	if((equality or equity or equitable) near/5 (diversity or diverse) near/5 (inclusion or inclusivity or inclusiveness or inclusive))	171°
S6	ti,ab,if("anti racism" or antiracism or "anti racist" or antiracist or "anti racial" or antiracial or "anti ethnic*" or antiethnic* or "inclusive leadership")	1612°
S7	MESH.EXACT.EXPLODE("Health Personnel") OR MESH.EXACT("Internship and Residency")	678842*
S8	EMB.EXACT.EXPLODE("health care personnel")	2394332 *
S9	ti,ab,if((health or healthcare or medical or nursing or paramedical or hospital) near/5 (personnel or professional or professionals or worker or workers or staff or provider or providers or practitioner or practitioners or employee or employees or specialist or specialists))	1203311 *
S10	ti,ab,if(doctor or doctors or physician or physicians or nurse or nurses or resident or residents or registrar or registrars or clinician or clinicians or "general practitioner" or "general practitioners" or GP or GPs or intern or interns or internship or residency or consultant or consultants)	3503972 *
S11	MESH.EXACT.EXPLODE("Health Personnel -- education") OR	65481*

	MESH.EXACT("Internship and Residency -- education")	
S12	MESH.EXACT.EXPLODE("Education, Continuing") OR MESH.EXACT("Education, Professional") OR MESH.EXACT("Education, Medical, Graduate") OR MESH.EXACT("Education, Pharmacy, Graduate") OR MESH.EXACT("Education, Dental, Graduate") OR MESH.EXACT("Education, Graduate") OR MESH.EXACT("Education, Nursing, Graduate") OR MESH.EXACT.EXPLODE("Inservice Training") OR MESH.EXACT("Vocational Education")	140280*
S13	EMB.EXACT("continuing education") OR EMB.EXACT("residency education") OR EMB.EXACT("education program") OR EMB.EXACT("vocational education") OR EMB.EXACT("in service training") OR EMB.EXACT("training") OR EMB.EXACT("staff training") OR EMB.EXACT("education") OR EMB.EXACT("medical education") OR EMB.EXACT.EXPLODE("paramedical education") OR EMB.EXACT("professional development") OR EMB.EXACT("workshop")	1136114 *
S14	ti,ab,if(training or education or instruction or workshop or workshops or "professional development" or CPD or intervention or interventions)	5591052 *
S15	MESH.EXACT("Program Evaluation") OR MESH.EXACT("Evaluation Studies as Topic") OR rtype.exact("Evaluation Studies") OR MESH.EXACT("Patient Outcome Assessment") OR MESH.EXACT("Patient Satisfaction") OR MESH.EXACT("Patient Reported Outcome Measures") OR MESH.EXACT("Treatment Failure") OR MESH.EXACT("Health Care Evaluation Mechanisms") OR MESH.EXACT("Outcome and Process Assessment, Health Care") OR MESH.EXACT("Outcome Assessment, Health Care") OR MESH.EXACT("Treatment Outcome") OR MESH.EXACT("Process Assessment, Health Care") OR MESH.EXACT("Health Impact Assessment") OR MESH.EXACT("Comparative Effectiveness Research")	1577655 *
S16	EMB.EXACT("program efficacy") OR EMB.EXACT("program effectiveness") OR EMB.EXACT("program impact") OR EMB.EXACT("program evaluation") OR EMB.EXACT("evaluation research") OR EMB.EXACT("course evaluation") OR EMB.EXACT("patient assessment") OR EMB.EXACT("clinical evaluation") OR	3307925 *

	EMB.EXACT("evaluation study") OR EMB.EXACT("outcome assessment") OR EMB.EXACT("evaluation and follow up") OR EMB.EXACT("nursing evaluation research") OR EMB.EXACT("adverse outcome") OR EMB.EXACT("nursing outcome") OR EMB.EXACT("patient-reported outcome") OR EMB.EXACT("treatment failure") OR EMB.EXACT("treatment response") OR EMB.EXACT("clinical outcome") OR EMB.EXACT("outcomes research") OR EMB.EXACT("treatment outcome") OR EMB.EXACT("outcome of education") OR EMB.EXACT("health impact assessment") OR EMB.EXACT("clinical effectiveness") OR EMB.EXACT("comparative effectiveness") OR EMB.EXACT("patient satisfaction") OR EMB.EXACT("patient satisfaction assessment")	
S17	ti,ab,if(evaluat* or outcome or outcomes or impact or impacts or effect or effects or effective or effectiveness or efficac*)	3148977 3*
S18	(s1 or s2 or s3 or s4 or s5 or s6) and (s7 or s8 or s9 or s10) and (s11 or s12 or s13 or s14) and (s15 or s16 or s17)	5677*
S19	ti,ab,if(("cultural diversity" or multicultural* or "multi cultural*" or "cultural competenc*" or "cultural sensitiv*" or intercultural* or "inter cultural*" or transcultural* or "trans cultural*" or crosscultural* or "cross cultural*" or multiethnic or "multi ethnic") near/5 (training or education or instruction or workshop or workshops or "professional development" or CPD or intervention or interventions))	6192*
S20	ti,ab,if((EDI or EDIIA or JEDI or DEI or DEIB or DEIA) near/5 (training or education or instruction or workshop or workshops or "professional development" or CPD or intervention or interventions))	244°
S21	(s19 or s20) and (s7 or s8 or s9 or s10) and (s15 or s16 or s17)	1540°
S22	s18 or s21	6661*
S23	(s18 or s21) and pd(2014-2024)	3247°
S24	(s18 or s21) not pd(2014-2024)	1557°

* Duplicates are removed from the search, but included in the result count.

° Duplicates are removed from the search and from the result count.

Please note: The search result in set S22 retains the duplicate references between Medline and Embase because the result count exceeds 5,000 references. To obtain the result count with duplicate references automatically removed, set S22 was split into two sets (S23 and S24) using the publication date limit.

Databases: Cochrane Library®

(search strategy run and results downloaded on 19 April 2024)

ID	Search	Hits
#1	MeSH descriptor: [Diversity, Equity, Inclusion] this term only	0
#2	MeSH descriptor: [Antiracism] this term only	0
#3	MeSH descriptor: [Cultural Diversity] this term only	110
#4	MeSH descriptor: [Cultural Competency] this term only	232
#5	((equality or equity or equitable) and (diversity or diverse) and (inclusion or inclusivity or inclusiveness or inclusive)):ti	1
#6	((equality or equity or equitable) and (diversity or diverse) and (inclusion or inclusivity or inclusiveness or inclusive)):ab	158
#7	((equality or equity or equitable) and (diversity or diverse) and (inclusion or inclusivity or inclusiveness or inclusive)):kw	6
#8	(("anti racism" or antiracism or "anti racist" or antiracist or "anti racial" or antiracial or (anti next ethnic*) or antiethnic* or "inclusive leadership")):ti,ab,kw	21
#9	MeSH descriptor: [Health Personnel] explode all trees	15455
#10	MeSH descriptor: [Internship and Residency] this term only	1836
#11	((health or healthcare or medical or nursing or paramedical or hospital) near/5 (personnel or professional or professionals or worker or workers or staff or provider or providers or practitioner or practitioners or employee or employees or specialist or specialists)):ti,ab,kw	47782
#12	(doctor or doctors or physician or physicians or nurse or nurses or resident or residents or registrar or registrars or clinician or clinicians or "general practitioner" or "general practitioners" or GP or GPs or intern or interns or internship or residency or consultant or consultants):ti,ab,kw	147034
#13	MeSH descriptor: [Health Personnel] explode all trees and with qualifier(s): [education - ED]	2481
#14	MeSH descriptor: [Internship and Residency] this term only and with qualifier(s): [education - ED]	0
#15	MeSH descriptor: [Education, Continuing] explode all trees	1402
#16	MeSH descriptor: [Education, Professional] this term only	55
#17	MeSH descriptor: [Education, Medical, Graduate] this term only	576
#18	MeSH descriptor: [Education, Pharmacy, Graduate] this term only	2
#19	MeSH descriptor: [Education, Dental, Graduate] this term only	7
#20	MeSH descriptor: [Education, Graduate] this term only	32
#21	MeSH descriptor: [Education, Nursing, Graduate] this term only	42
#22	MeSH descriptor: [Inservice Training] explode all trees	975
#23	MeSH descriptor: [Vocational Education] this term only	64
#24	(training or education or instruction or workshop or workshops or "professional development" or CPD or	680022

	intervention or interventions):ti,ab,kw	
#25	MeSH descriptor: [Program Evaluation] this term only	7611
#26	MeSH descriptor: [Evaluation Studies as Topic] this term only	4490
#27	MeSH descriptor: [Patient Outcome Assessment] this term only	503
#28	MeSH descriptor: [Patient Satisfaction] this term only	14380
#29	MeSH descriptor: [Patient Reported Outcome Measures] this term only	1760
#30	MeSH descriptor: [Treatment Failure] this term only	4164
#31	MeSH descriptor: [Health Care Evaluation Mechanisms] this term only	0
#32	MeSH descriptor: [Outcome and Process Assessment, Health Care] this term only	2934
#33	MeSH descriptor: [Outcome Assessment, Health Care] this term only	11068
#34	MeSH descriptor: [Treatment Outcome] this term only	190923
#35	MeSH descriptor: [Process Assessment, Health Care] this term only	366
#36	MeSH descriptor: [Health Impact Assessment] this term only	21
#37	MeSH descriptor: [Comparative Effectiveness Research] this term only	493
#38	(evaluat* or outcome or outcomes or impact or impacts or effect or effects or effective or effectiveness or efficac*):ti,ab,kw	1745159
#39	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8) and (#9 or #10 or #11 or #12) and (#13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24) and (#25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38)	131
#40	((("cultural diversity" or multicultural* or (multi next cultural*) or (cultural next competenc*) or (cultural next sensitiv*) or intercultural* or (inter next cultural*) or transcultural* or (trans next cultural*) or crosscultural* or (cross next cultural*) or multiethnic or "multi ethnic") near/5 (training or education or instruction or workshop or workshops or "professional development" or CPD or intervention or interventions)):ti,ab,kw	227
#41	((EDI or EDIIA or JEDI or DEI or DEIB or DEIA) near/5 (training or education or instruction or workshop or workshops or "professional development" or CPD or intervention or interventions)):ti,ab,kw	15
#42	(#40 or #41) and (#9 or #10 or #11 or #12) and (#25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38)	93
#43	#39 or #42	189

- The Cochrane Database of Systematic Reviews (CDSR, Cochrane Reviews: Issue 4 of 12, April 2024) (4 references)
- The Cochrane Central Register of Controlled Trials (CENTRAL, Trials: Issue 3 of 12, March 2024) (185 references)

Supplemental Table 3: Excluded Studies

title	year	authors	Reason for exclude
Am I MORE RACIST THAN I THOUGHT I WAS: DEVELOPMENT AND EVALUATION OF A RESIDENT-LED ANTIRACISM CURRICULUM	2022	Choudhury, Asha and Garcia-Grossman, Ilana and Hargrave, Anita S. and Maristany, Daniela and Martinez, Adali and Nguyen, Caroline and Raskob, Kathleen M. and Roseman, Destiny and Scott, Brandon and Nirkhe, Surabhi	Full text not available
"I Didn't Know What to Say": Responding to Racism, Discrimination, and Microaggressions With the OWTFD Approach	2020	Sotto-Santiago, Sylk and Mac, Jacqueline and Duncan, Francesca and Smith, Joseph	Includes students
A novel emergency medicine cultural competency curriculum addressing health care disparities	2022	Akhetuamhen, Adesuwa I and Ibiebele, Abiye L and Leibowitz, Maren K and Welch, Sarah B and Campbell, Mobola and Shakeri, Nahziniye and Bailitz, John M	Primary outcome was effect on patient outcomes
A one-month cultural competency rotation for pediatrics residents	2001	Takayama, J I and Chandran, C and Pearl, D B	Conference abstract
An Introduction to Faculty Diversity, Equity, and Inclusion for Excellence in Nurse Education: Literature Review	2023	Ganek, Emily and Sazon, Romy Antonette P and Gray, Lauren and Sherry, Daisy	Literature review-references hand searched
An Overdue Reckoning on Racism in Nursing	2022	Canty, Lucinda and Nyirati, Christina and Taylor, Valorie and Chinn, Peggy L.	Primary outcome was effect on patient outcomes
Anti-racism in graduate medical education-a call for change	2021	Gonzalez Corro, Luis A. and Ferrel, Vanessa K. and Gutierrez, Nataly Rios and Scott, Shani	Conference abstract
Attitudes to and perceptions of workplace health promotion amongst employees from ethnic minorities in the UK: A scoping review	2024	Platts, Katharine and Scott, Emma and Griffiths, Kerry and Carter, Anouska	Not a review of specific EDI intervention
BEYOND TERMINOLOGY: TRAINING RESIDENTS TO RESPOND TO RACISM THROUGH SIMULATION	2023	Bowen, DeMarco and Rhee, Kyung and Fisher, Erin and MacAulay, Robert and Ekpenyong, Atim and Patel, Aarti	Conference abstract
Cultural competence education for health care professionals	2015	Raffoul, Melanie and Lin, Kenneth W.	Systematic review-references hand searched
Cultural competence in pediatrics: Health care provider knowledge, awareness, and skills	2015	Dabney, Kirk and McClarin, Lavisha and Romano, Emily and Fitzgerald, Diane and Bayne, Lynn and Oceanic, Patricia and Nettles, Arie L. and Holmes, Laurens, Jr.	Primary outcome was effect on patient outcomes
Cultural competence training for clinical staff: measuring the effect of a one-hour class on cultural competence	2013	Delgado, Deborah Ann and Ness, Sheryl and Ferguson, Kathy and Engstrom, Patricia Lorraine and Gannon, Theresa M and Gillett, Craig	Primary outcome was effect on patient outcomes
Cultural self-awareness training in OBGYN residency	2017	Lutz, Elizabeth and Riley, Rachel	Conference abstract
Description of a novel curriculum on equity, diversity and inclusion for pediatric residents	2022	Mullett, Thelben A. and Rooholamini, Sahar N. and Gilliam, Courtney and McPhillips, Heather and Grow, H. Mollie	Full text not available
Designing an education intervention for understanding racism in healthcare in Sweden: development and implementation of anti-racist strategies through shared knowledge production and evaluation	2023	Bradby, Hannah and Hamed, Sarah and Thapar-Björkert, Suruchi and Ahlberg, Beth Maina	Not a review of specific EDI intervention
Diversity, Equity, and Inclusion as Part of Professionalism and Ethics in Dermatology	2024	Chandy, Rithi J. and Ravis, Cristian C. and Dao, Diem-Phuong D. and Huang, William Wei-Ting	Full text not available
Diversity, Equity, and Inclusion Curriculum Embedded in a Physical Medicine and Rehabilitation Residency Program	2024	Nnoromele, Chinenye C. and Chen, Ya-Ting and Olezene, Cameron S. and Blauwet, Cheri A. and Brady Wagner, Lynne C. and Katz, Nicole B. and Hunter, Tracey and Silver, Julie K.	Primary outcome was effect on patient outcomes
Early impact of a Health Equity, Diversity, and Inclusion curricula on resident knowledge, attitudes and skill in cross-cultural care	2020	Mendez, Nicole and Pryce, Patrice A. and Uwemedimo, Omolara and Barone, Stephen and Goenka, Praticchi	Conference abstract
Educational Outcomes of Diversity Curricula in Graduate Medical Education	2023	Chung, Arlene S and Cardell, Annemarie and Desai, Smruti and Porter, Evelyn and Ghei, Ridhima and Akinlosotu, Joanna and Ogedegbe, Chinwe	Systematic review-references hand searched
Effects of a cultural competence promotion program for multicultural maternity nursing care: case-based small group learning	2013	Park, Myung-Sook and Kweon, Young-Ran	Not in English
Evaluation of a Virtual Health Equity Training for Mid-Career Primary Healthcare Providers	2023	Roberts, Katherine J and Omaitis, Elise	Primary outcome was effect on patient outcomes
Evaluation of cross-cultural competence among German health care professionals: A quasi-experimental study of training in two hospitals	2024	Beck, Patricia and Matusiewicz, David and Schouler-Ocak, Meryam and Khan, Zohra and Pepler, Lisa and Schenk, Liane	Primary outcome was effect on patient outcomes
Expanding DEI Curricula in Emergency Medicine Graduate Medical Education: A Pilot Innovation Project	2023	Johnson, Whiney and Bauer, Leah and Li, Xian and Armenian, Patil and McCue, James and Storkan, Michelle and Haight, Stephen and Dhillon, Sukhjit and Hitchner, Lily and Werner, Jessie and Pettigrew, Courtney and Rege, Rahul and Mateo, Camila	Conference abstract
From Race to Racism: Teaching a Tool to Critically Appraise the Use of Race in Medical Research	2022	Garvey, Amy and Lynch, Giselle and Mansour, Mayce and Coyle, Andrew and Gard, Sabrina and Truglio, Joseph	Includes students
Health Equity Rounds: An Interdisciplinary Case Conference to Address Implicit Bias and Structural Racism for Faculty and Trainees	2019	Perdomo, Joanna and Tolliver, Destiny and Hsu, Heather and He, Yuan and Nash, Katherine A and Donatelli, Stephanie and Mateo, Camila and Akagbosu, Cynthia and Alizadeh, Faraz and Power-Hays, Alexandra and Rainer, Tyler and Zheng, Daniel J and Kistin, Caroline J and Vinci, Robert J and Michelson, Catherine D	Includes students
Health workforce cultural competency interventions: a systematic scoping review	2018	Jongen, Crystal and McCalman, Janya and Bainbridge, Roxanne	Systematic review-references hand searched
Hematology/medical oncology fellow responses to the initial development of an antiracism curriculum	2021	Nakajima, Erica C. and Messmer, Marcus and Jones, Jennifer Marie and Mathieu, Luckson and Phillips, Tanyanika and Weekes, Colin D. and Marshall, Catherine Handy and Sanderford, Honor	Conference abstract

		and Donehower, Ross C. and Marrone, Kristen and Moyo, Victor M.	
How to Teach Cross-Cultural Communication: A Workshop Using the Experiential Learning Model	2023	Buttigieg, Angie and Chieco, Deanna and Maldonado, Maria and Wang, Kelly and Gault, Allison and Mogilner, Leora	Primary outcome was effect on patient outcomes
IMPLEMENTATION AND EVALUATION OF A NOVEL ANTIRACISM CURRICULUM FOR A PEDIATRIC GASTROENTEROLOGY TEAM	2023	Person, Hannibal and Montenegro, Roberto	Conference abstract
IMPLEMENTING A HEALTH EQUITY, ADVOCACY, AND ANTI-RACISM (HEAAR) CURRICULUM FOR INTERNAL MEDICINE RESIDENTS	2023	Morenz, Anna M. and Abe, Ryan and Yousufzai, Hasib and Bernfeld, Lynsey and Jack, Helen E. and Yancey-Watson, Angeilea and Cravero, Anne L. and Chen, Anders	Conference abstract
Implementing an Interprofessional Anti-Racism Training With Community Partners During a Pandemic: Outcomes and Recommended Strategies	2021	Knox, Kjersti and Simpson, Deborah and Bidwell, Jacob and Lehmann, Wilhelm	Includes students
Improving surgical residents' performance on written assessments of cultural competency	2008	Krajewski, Aleksandra and Rader, Christine and Voytovich, Anthony and Longo, Walter E and Kozol, Robert A and Chandawarkar, Rajiv Y	Primary outcome was effect on patient outcomes
Innovation in recruitment and curricular design for diversity, equity, and inclusion (DEI) education for hematology-oncology (HO) trainees	2022	Hussaini, S.M. Qasim and Rosner, Samuel and Nakajima, Erica C. and Messmer, Marcus and Phillips, Tanyanika and Naik, Rakhi Prakash and Donehower, Ross C. and Marrone, Kristen	Conference abstract
Learner Reactions to Activities Exploring Racism as a Social Determinant of Health	2019	Dennis, Syeachie N. and Gold, Rachel S. and Wen, Frances K.	Includes students
Lessons learned from implementing a diversity, equity, and inclusion curriculum for health research professionals at a large academic research institution	2024	Hill Weller, LaMisha and Rubinsky, Anna D. and Shade, Starley B. and Liu, Felix and Cheng, Iona and Lopez, Georgina and Robertson, Asha and Smith, Jennifer and Dang, Kristina and Leiva, Christian and Rubin, Susan and Martinez, Suzanna M. and Bibbins-Domingo, Kirsten and Morris, Meghan D.	Includes students
Lessons Learned: Developing an Online Training Program for Cultural Sensitivity in an Academic Psychiatry Department	2021	Trinh, Nhi-Ha and O'Hair, Cayla and Agrawal, Shubb and Dean, Taquesha and Emmerich, Anne and Rubin, David and Wozniak, Janet	Outcomes poorly reported
Let's talk: Resident directed curriculum on diversity, equity and inclusion	2021	Nnoromele, Chinenye C. and Olezene, Cameron S and Chen, Ya-Ting and Gebrekristos, Berkenesh T and Blauwet, Cheri and Silver, Julie K	Conference abstract
MICROLESSONS FOR MICROAGGRESSIONS	2023	Liao, Theresa H. and Prasad, Ramya and Kahn, Talia	Conference abstract
Professional Development in Health Sciences: Scoping Review on Equity, Diversity, Inclusion, Indigeneity, and Accessibility Interventions	2023	Liblik, Kiera and Desai, Veeral and Yin, Grace and Ng, Rebecca and Maho, Sigi and Cohen, Natasha and Soleas, Eleftherios K	Systematic review-references hand searched
Re: Evaluating the Uptake of Antiracism Training, Policies, and Practices in Departments of Family Medicine	2024	Hogans-Mathews, Shermeeka and Thomas, Brett and Ogbuide, Stacy A.	Not a review of specific EDI intervention
STRUCTURAL COMPETENCY: A FACULTY DEVELOPMENT CURRICULUM FOR ANTI-RACISM IN MEDICAL EDUCATION	2022	Scott, Shani and Hassan, Iman and Gonzalez, Cristina M.	Conference abstract
Systematic review of Indigenous cultural safety training interventions for healthcare professionals in Australia, Canada, New Zealand and the United States	2023	Hardy, Billie-Jo and Filipenko, Sam and Smylie, Diane and Ziegler, Carolyn and Smylie, Janet	Systematic review-references hand searched
TEACHING ANTI-RACISM IN MEDICINE: AN EVALUATION OF A NOVEL AND LONGITUDINAL CURRICULUM FOR RESIDENT PHYSICIANS	2023	De Leon, Elaine and Chebly, Katherine O. and Girmay, Blen and Altshuler, Lisa and Greene, Richard E.	Conference abstract
The impact of diversity, equity, and inclusion training in an independent community oncology practice	2022	Fleming, Mark T. and Lewis, Tiffany and Lyons, Kristina and Poole, Roshonda and Prillaman, Christina	Conference abstract
Undoing Racism and Mitigating Bias Among Healthcare Professionals: Lessons Learned During a Systematic Review	2022	Ricks, Tiffany N. and Abbyad, Christine and Polinard, Elizabeth	Systematic review-references hand searched

Supplemental Table 4: Summary of included studies

Authors (Date)	Country	Study type	Participants (type, number)	Participants from an ethnic minority background (number, %)	Training characteristics	Outcome measures	Findings	Risk of bias assessment (Risk of bias, number of domains (%))
Banerjee 2022 ²⁴	USA	Quasi-experimental	Doctors (n=38)	Not reported	Thirteen, one-hour didactic sessions	1. Attitudes 2. Knowledge 3. Confidence and comfort in addressing racism	1. Attitudes -Belief that there is discrimination against healthcare professionals based on race- no change 2. Knowledge -Code switching- no change -Microaggressions-2% improvement (OR 1.02 [95%CI 0.77-1.34]) 3. Confidence and comfort in addressing racism -Identifying examples of interpersonal/individual racism- 10 mean score improvement in agreement (95%CI 2-18) -Identifying examples of institutional/structural racism- no change -Comfort with talking/others talking about race- no change - Tools to achieved racial equality- no change	Low= 6 (66.7) Unclear =1 (11.1) High= 2 (22.2)
Brathwaite 2006 ²⁵	Canada	Mixed-methods	Nurses (n=76)	Not reported	Educational programme (Six sessions of two- hour duration) -Lectures -Role-play -Small group discussion - Assessments	1. Cultural knowledge Scale 2. Qualitative	Cultural knowledge- 0.8 mean score improvement (p=0.000) Qualitative: -Discussions of healthcare workers' experiences with various cultures great for learning	Low=7 (77.8) Unclear=1(11.1) High=1(11.1)
Calardo 2022 ²⁶	USA	Quasi-experimental	Doctors (n=20)	Not reported	Three, one-hour workshops -Large/Small group sessions -Video simulation -Role play	Knowledge and tools to address racism	At 3 months: - Respond to bias - 39% improvement (p=0.04) - Escalate discriminatory behaviour- 49% improvement (p=0.04)	Low= 6 (66.7) Unclear =1 (11.1) High= 2 (22.2)
Celik, 2012 ³⁰	Netherlands	Mixed - methods	Mental health, Hospital, Nursing home (n=31) Nurses (n = 12) Doctor (n=1) Psychologist (n=1) Social worker	1(3.3)	Four, four-hour group training modules based on Deming Cycle (PDSA) 1. Introduction 2. Diversity and the professional 3. Diversity and the	Quantitative Pre and post survey: 1. Diversity awareness 2. Programme satisfaction Qualitative: - Knowledge	1. Knowledge (1-10) Mental health: 1.8 mean score improvement (0.026) Hospital: 3.3 mean score improvement (p<0.005) Nursing home: No improvement 2. Attention to diversity	Low= 6 (66.7) Unclear =2 (22.2) High= 1 (11.1)

			(n=1) Health care assistant (n=3) Paramedic (n=3) Administrative (n=10)		institution 4. Work plan for action Included case-based discussions and evaluation of policy documents, care protocols and guidelines	- Attention to diversity - Willingness to take action - Satisfaction	Mental health: Reduction from good to could be better Hospital: Reduction from good to could be better Nursing home: Good 3. Willingness to take action Mental health: Attitude improved Hospital: Attitude improved Nursing home: No change 4. Satisfaction Mental health: Mean scores 7.0-7.7 Hospital: Mean scores 7.1-8.3 Nursing home: Mean scores 5.9-6.5	
Filmer 2019 ³¹	Germany	<i>Quasi-experimental</i>	Nurses (n=165)	41(24.8)	Three, two to three-hour training sessions - Lectures - Role-play - Experimental exercises - Group discussion - Reflection	1. Cross-cultural attitudes 2. Positive effect on cross-cultural encounters 3. Behaviour 4. Knowledge	1. Cross-cultural attitudes - Sensibility for other cultures- No improvement - Intercultural teamwork- No improvement - Reflection of other cultures- 0.17 mean score improvement (p=0.045) 2. Positive effect on cross-cultural encounters - Cultural anxiety- No improvement - Directed concern- No improvement - Undirected concern- No improvement 3. Behaviour - Cultural communication- No improvement - Perspective taking- No improvement 4. Knowledge - Self reported Cultural knowledge- No improvement - Knowledge test- 7.3 mean score improvement (p=0.046)	Low=8 (88.9) Unclear=0 (0) High=1 (11.1)
Fricke 2023 ⁴⁰	Canada	<i>Qualitative</i>	Occupational therapists and physiotherapists (n=22)	2(9.1)	Four, 90- minute virtual simulation workshops -Role-play	1. Workshop impact 2. Personal and professional role in addressing microaggressions in healthcare 3. Skills to take action	1. Impact -Tools to dismantle racism in the workplace- 100% agreement 2. Role in addressing microaggressions - 100% agreement Qualitative 1. So much to unlearn 2. Remain humble 3. Resist the silence	Low=8 (80.0) Unclear=0 (0) High=2 (20.0)

							4. Discomfort is okay	
Gleeson 2023 ³⁶	USA	Quasi-experimental	Doctors (infectious disease) (n=28)	7(25.0)	Eleven virtual didactic and experimental sessions based on Kern's 6-Step approach	1. Comfort talking about racism with colleagues 2. Experience of institutional racism	At 2 years: 1. Comfort talking about racism (0-5) - No change 2. Experience of institutional racism -No change	Low=8 (88.9) Unclear=0 (0) High=1 (11.1)
Hill Weller 2023 ³⁷	USA	Quasi-experimental	Doctors (n=54)	26(48.1)	Two-hour workshop based on critical race theory, transformative learning, minority stress theory, and the structural theory of gender and power: -Didactic teaching -Case scenarios -Microaggression tool kit -Small group discussion	Addressing microaggressions	0-5 1. Likelihood to take action for myself -2.0 mean score improvement (p<0.05) 2. Likelihood to take action for others -1.7 mean score improvement (p<0.05) 3. Tools to address for myself -1.9 mean score improvement (p<0.05) 4. Tools to address for others -1.9 mean score improvement (p<0.05)	Low=8 (88.9) Unclear=0 (0) High=1 (11.1)
Holm 2017 ²⁷	USA	Qualitative	Healthcare professionals (n=300)	Not reported	Fifteen Privilege and Responsibility Curricular Exercises - Group exercises - Debriefing	Qualitative	Participants with more privileges gained insight into their membership in dominant cultural groups Course was a precursor to both cultural humility and motivation to promote system changes.	Low=6 (60.0) Unclear=1 (10.0) High=3 (30.0)
Lange 2013 ³⁸	USA	Mixed-methods	Nurses, nursing assistants, applied health professionals (n=74)	10(13.5)	10-12, one-hour group sessions over one year -Case reviews -Food sharing -Games -Videos	1. Cultural Self Efficacy Scale 2. Qualitative	1. Cultural Self Efficacy Scale - Knowledge of cultural concepts- 1.04 mean score improvement (p<0.001) - Confidence in performing culturally-related skills- 1.15 mean score improvement (p<0.001) Qualitative: -Session content being applied to encounters with coworkers -Importance of communication and accepting different cultures in a non-judgemental manner	Low=7 (77.8) Unclear=1(11.1) High=1(11.1)
Lin 2020 ²⁸	Taiwan	<i>Randomised control trial (single blind)</i>	Nurses (n=100)	Not reported	Educational session (Four sessions of three-hour duration) - Lectures - Story-telling - Videos - Role-play	Nursing cultural competence scale	Cultural competence- no improvement	Low=10 (76.9) Unclear=1 (7.7) High=2 (15.4)
Powell 2021 ³⁹	USA	Mixed-methods	Doctors (n=74)	72(97.3)	10-month programme based on Kern's 6-Step approach and self-determination theory -Two-hour sessions	1. Self-efficacy 2. Behaviour changes Qualitative	Self-efficacy (0-5) Ability to discuss: 1. Why diversity and inclusion matter in medicine -2017-2018- 1.59 mean score improvement (p<0.001)	Low=8 (88.9) Unclear=0 (0) High=1 (11.1)

					<p>-Interactive large and small group discussion</p> <p>- Workshop presentation development</p>	<p>-2018-2019-1.05 mean score improvement (p<0.001)</p> <p>-2019-2020-1.08 mean score improvement (p<0.001)</p> <p>2. Implicit bias and impact of microaggression in the workplace (0-5)</p> <p>-2017-2018- 2.00 mean score improvement (p<0.001)</p> <p>-2018-2019-1.20 mean score improvement (p<0.001)</p> <p>-2019-2020-1.48 mean score improvement (p<0.001)</p> <p>3. How privilege and allyship operates in the workplace (0-5)</p> <p>-2017-2018-1.58 mean score improvement (p<0.001)</p> <p>-2018-2019-0.95 mean score improvement (p<0.001)</p> <p>-2019-2020-not assessed</p> <p>4. The impact of structural racism</p> <p>2017-2018- not assessed</p> <p>2018-2019- not assessed</p> <p>2019-2020- 1.45 mean score improvement (p<0.001)</p> <p>5. The process for advancing a culture of "inclusive diversity" in leadership</p> <p>2017-2018- not assessed</p> <p>2018-2019- not assessed</p> <p>2019-2020- 1.48 mean score improvement (p<0.001)</p> <p>Behaviour changes (0-5)</p> <p>1. Strategies to promote underrepresented trainees in leadership in medicine</p> <p>-2017-2018-1.58 mean score improvement (p<0.001)</p> <p>-2018-2019- 0.95 mean score improvement (p<0.001)</p> <p>-2019-2020- not assessed</p> <p>1. Strategies to promote culturally sensitive mentoring conversations</p> <p>-2017-2018- not assessed</p> <p>-2018-2019- not assessed</p> <p>-2019-2020- 1.52 mean score improvement (p<0.001)</p> <p>Qualitative: The intervention led participants to:</p> <p>1. Make specific behaviour changes and set</p>	
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							goals for additional changes 2. Be more willing to learn and teach colleagues how to mitigate bias 3. Support their colleagues from diverse backgrounds	
Santoro,2022 ³³	USA	Quasi-experimental	Nutritionists (n=42)	19(45.2)	Three- hour training- Didactic training based on cultural humility framework	Awareness: 1. Role of racism in healthcare 2. Participants own bias and privilege Confidence: 1. Identifying interactions that perpetuate racism 2. Addressing interactions that perpetuate racism At an individual, interpersonal and institutional level	Awareness 1. Role of racism in healthcare- 27% improvement (p<0.05) 2. Participants own bias and privilege- 25% improvement (p<0.05) Confidence: 1. Identifying interactions that perpetuate racism Individual- 25% improvement (p<0.05) Interpersonal- 33% improvement(p<0.05) – not sustained at 6 months Institutional- 34% improvement(p<0.05) – not sustained at 6 months 2. Addressing interactions that perpetuate racism Individual- 37% improvement (p<0.05) – not sustained at 6 months Interpersonal- 42% improvement(p<0.05) Institutional- 44% improvement(p<0.05) – not sustained at 6 months	Low= 6 (66.7) Unclear =1 (11.1) High= 2 (22.2)
Shahram 2022 ²⁹	USA	Qualitative	Healthcare professionals (n=50)	Not reported	Five virtual sessions based on Kern's 6-Step approach and Paulo Freire's pedagogy of critical consciousness -Didactic teaching -Small group sessions	Qualitative	1. Feeling overwhelmed 2. Hope to take action 3. Sense of community 4. Data motivates action 5. Lack of resources	Low=8 (80.0) Unclear=0 (0) High=2 (20.0)
Steed 2010 ³⁵	USA	Mixed-methods	Occupational therapists (n=13)	0(0.0)	One, six-hour workshop - Didactic - Videos - Small-group discussion	1. Race Attitude Implicit Association Test (RAAIT) 2. Racial Argument Scale (RAS) 3. Qualitative	1. RAAIT- No significant difference 2. RAS- No significant difference Qualitative: Increased awareness of the stress on the African American culture – how it affects feelings of success/coping behaviours.	Low=7 (77.8) Unclear=1(11.1) High=1(11.1)
Szoko, 2023 ³⁴	USA	Quasi-experimental	Doctors (paediatrics) (n=37)	13(37.0)	Seven, one hour-duration didactic sessions based on Kern's 6-Step approach	Anti-Racism Behavioural Inventory: Awareness- healthcare 1. Knowledge 2. Clinical Skills 3. Advocacy behaviours 4. Institutional behaviours	At 3 months- 1. Awareness- 27% improvement (p=0.004) 2. Knowledge- Mean score improvement=4 (p=0.03) 3. Clinical Skills- 37% improvement (p<0.001) 4. Advocacy behaviours= Mean score improvement=0.4 (p<0.001) 5. Institutional behaviours- No improvement	Low=8 (88.9) Unclear=0 (0) High=1 (11.1)

Tillman 2024 ³²	USA	Mixed-methods	Pharmacists (n=21)	8(38.1)	Monthly, one hour seminar groups for 1 year -Presentations	Self-perceived benefit of each session Educational awareness of core EDI themes: 1. Implicit bias 2. Racial/Ethnic Health and Workplace Disparities 3. Structural Racism Qualitative	Self-perceived benefit of each session (0-5) Mean score 4.11-4.74 Improvement in educational awareness (agree or strongly agree): 1. Implicit bias 81.0% agreed/strongly agreed 2. Racial/Ethnic Health and Workplace Disparities 81.0% agreed/strongly agreed 3. Structural Racism 66.7% agreed/strongly agreed Qualitative: Encouraged to actively work to avoid preconceived assumptions, be more open to difficult conversations, plan peer activities to be more inclusive, and develop into more empathetic colleagues	Low= 6 (66.7) Unclear =2 (22.2) High= 1 (11.1)
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Supplemental Table 5: RCOG Racial Diversity Strategies:

Initiative	Action	Progress: completed (green box), in progress (amber box), in discussion (purple box)
Commitment to increasing awareness on the challenges minoritized groups face	Advocated for increased awareness of differential attainment and workplace discrimination at national and regional meetings	Workstreams on Differential attainment at RCOG World Congress, RCOG Quality Improvement Meeting, Core20PLUS5, RCOG Annual Profession Development Conference, Clinical Directors forum, Leadership forum and Specialty Education Advisory Committee (SEAC) developmental day.
	Created a regular schedule of events celebrating diversity, aligning with external events	Continued work RCOG celebrated Black History Month, India Day, Held a SAS and LED week.
	Collection of data: Included questions about DA and racism in the annual Training Evaluation Form (TEF)	2022 TEF analysis Differential Attainment Report (Lydia Akinola, Rehan Khan) published and presented at World congress and SEAC
	RCOG Workforce census to capture data on workplace behaviours and working patterns for fellows and members.	Workforce census questionnaire currently in progress and will be disseminated in the Summer. To include question on the ethnicity of the workforce including collating information on educational, managerial and directorship roles through the workforce census.
	Collating data and reviewing current membership ethnicity data. Encouraging fellows and members to complete demographic information on forms explaining how this data is used.	Work to be started by the RCOG workforce and Education team awaiting information governance approval
	Review the racial and ethnic mix of trainees selected for subspecialty training, research Fellowships, College positions, and trainee representatives on Council and Training Committee.	Under progress as well as the subspec training committee issuing advise to standardise the format and panels for interviews for subspecialty roles.
	Survey of Educational supervisors on resources available and support for DA.	Completed 2022. Results presented at Specialty Education Advisory Committee.
Coaching/ Mentoring and Allyship	Commissioned the development and evaluation of the RCOG coaching skills programme	Recruited 12 fellows and members to represent regions in the UK, including Scotland, Ireland, and Wales. The group funded by HEE and the RCOG were taught coaching skills and have been offering coaching to doctors working in O+G. Each participant has committed to coaching three coachees over the year. Currently undergoing evaluation through a process of participant observation by a team at Southampton University
	Develop toolkit on supporting doctors in the workplace, particularly those struggling with exams and career progression. To include information on allyship, mentoring, coaching, and bystander training with case studies.	Completed- due to be launched 2024.
Educational Resources	IMG Induction Programme: O&G Appendix to NHS Induction Programme for IMGs	https://www.e-lfh.org.uk/wp-content/uploads/2022/06/Welcoming-and-Valuing-International-Medical-Graduates-A-guide-to-induction-for-IMGs-WEB.pdf
	RCOG Educational Supervisors' toolkit	Link
	RCOG e-learning module: Tackling Racism	Tackling Racism Link
	MTI initiative and champions aligned to regional units.	Regional champions link
	Develop Historical Digital Museum-recognising the contribution of the Black, Asian and minoritized groups to the speciality both in the UK and Globally	Not started

	Develop interview technique skills for doctors seeking promotional opportunities	Not started
	Training Disparity Dashboard (Equality Diversity Inclusion dashboard)	Developed and disseminated to the heads of School through SEAC
	Publications	Published quantitative and qualitative analysis of trends in DA, racism and discrimination within O&G .
	Differential attainment tool kit	Published a TOG article : A Race to the Finish Line Completed- Awaiting launch
Psychological Safety	Generate wellbeing modules to support psychological safety, identification of emotional distress, resilience strategies and support for those negatively impacted by differential attainment.	Safety Thinking Toolkit Including Compassionate leadership, Civility in the workplace, Human factors and Health and Wellbeing. Promote workplace behaviour toolkit and Civility in the workplace resources. Working with the Royal College of Anaesthetist to promote the fight fatigue programme.
	Develop support mechanisms from those from minoritized backgrounds who have been directly affected by a serious incident.	To be developed
	Develop RCOG wellbeing events.	The Survey highlights the effects of racism. The RCOG is commissioning a Wellbeing Day
	Build support links into the RCOG IMG Hub	The IMG Hub to be launched