# BMJ Open Exploring the literature on racism and health practitioner regulation: a scoping review protocol

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## **ABSTRACT**

Introduction Racism in healthcare leads to significant harm to healthcare professionals and the clients, families and communities they serve. Increasingly, health practitioner regulators—responsible for protecting the public and ensuring practitioner competenceare recognising the importance of reforming policies and practices to contribute to antiracist regulatory approaches. Examples of this work include developing specific standards of practice related to antiracism and antidiscrimination, supporting education and training, re-evaluating discriminatory licensure policies for internationally educated professionals and reforming internal governance structures to address unconscious bias. An understanding of the current state of literature can help identify knowledge gaps and inform the development of research agendas that can build the evidence base required to improve health practitioner regulators' approaches to addressing racism.

The objective of this scoping review is to explore the nature, extent and range of literature focused on racism and health practitioner regulation and identify gaps in the literature.

Methods and analysis The review will be conducted in accordance with the Joanna Briggs Institute guidelines for scoping reviews. Database searches will include OVID MEDLINE, EMBASE, CINAHL, Scopus and Web of Science Core Collection. The review will include papers that discuss how health practitioner regulation can contribute to and perpetuate interpersonal and institutional racism, and how regulatory policies and practices can help address racism. We will also search for grey literature using the websites of leading regulatory organisations. Data will be analysed using descriptive statistics and conventional content analysis. Findings will be presented using evidence tables and a narrative summary. Reporting will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews. Ethics and dissemination Ethics approval is not applicable to this review protocol. Findings will be disseminated through presentations, meetings with health practitioner regulators and a publication in a peer-

## INTRODUCTION

reviewed journal.

Racism is a fundamental determinant of health and significantly influences the severity social, economic and environmental

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Adhering to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews framework will ensure replicability and transparency.
- ⇒ The comprehensive search of multiple databases and relevant regulatory organisations will ensure a thorough investigation of the literature.
- ⇒ The broad population and context will ensure findings are widely applicable across professions and jurisdictions.
- ⇒ Two independent reviewers will complete the screening and extraction process which will ensure
- ⇒ The studies in the review will be limited to Englishonly publications.

inequalities.<sup>1</sup> Recent events have shed light on the persistent issue of racism within healthcare systems across several jurisdictions, and the devastating impacts on the quality of life for both racialised healthcare providers and clients.<sup>2</sup> Racism impacts the accessibility, availability and acceptability of healthcare services, contributing to poor health outcomes and increased costs to health systems. Literature on racism and healthcare has been growing significantly over the last few decades. Existing scholarship illustrates that racism continues to be manifested within healthcare institutions in North America and Europe, resulting in differences in how healthcare is delivered, accessed and received among racialised minorities.<sup>3</sup> This existing literature focuses on both the experiences of healthcare staff and users, the impacts of racism on treatment and care, attitudes and beliefs about racism among healthcare staff and the development of education and training focused on antiracism.

Recently, there has been a trend among healthcare institutions such as education and service delivery bodies to focus resources on equity, diversity, inclusion and antiracism. While these efforts are important for



addressing institutional and interpersonal racism, other key players such as health practitioner regulators, also have a significant role to play in creating antiracist health-care systems. Regulators have an influential role as they oversee practitioner pathways from education to registration to practice. Regulatory schemes differ around the world; however, in general, the goal of health practitioner regulation is to protect the public by ensuring practitioners provide high-quality care in accordance with standards and codes of ethics. Professional regulation represents authority over specific knowledge and practices and helps to clearly articulate what is acceptable for healthcare practitioners.

Through licensure policies, the implementation and enforcement of standards of practice and codes of ethics, policies for continuing professional development, and management of unprofessional conduct, regulators work to ensure the public is protected through high-quality safe care. Regulators are often viewed as the gatekeepers to safe patient care; however, the actions or inactions of regulators can also perpetuate and reinforce racism within health systems. For example, licensure policies may be used to unjustly exclude internationally educated healthcare professionals, and complaints and discipline processes may be influenced by unconscious bias. Further, the absence of clear standards of practice articulating healthcare practitioners' accountabilities related to antiracist practice can contribute to the conditions that give rise to racism.

Increasingly, not only are regulators claiming their role in combatting racism within health systems, but they are also taking steps to address regulatory policies and practices that contribute to or perpetuate interpersonal and institutional racism. For example, in British Columbia, Canada, several health profession regulators have collaborated to develop standards of practice to address Indigenous cultural safety, humility and antiracism.<sup>7</sup> Regulators in other Canadian jurisdictions have also taken steps to work towards equity, diversity, inclusion and addressing anti-Indigenous and anti-Black racism through issuing formal apologies for historical failures, creating structures and mechanisms to improve regulatory functions, developing education and training, and creating standards and policies to set clear expectations for regulated professionals.<sup>8 9</sup> Similarly, in Australia, the Australian Health Practitioner Regulation Agency recently introduced new governance changes where Indigenous representatives will guide profession-specific regulatory boards in reviewing allegations of racism.<sup>10</sup>

Leading regulatory consortiums such as the Professional Standards Authority (PSA) for Health and Social Care in the UK have also noted the urgency in addressing racism, discrimination and inequalities faced by regulated professionals from minority ethnic groups. Existing research shows that Black and minoritised ethnic professionals are over-represented in all stages of fitness to practice processes. The PSA has suggested that regulators can play a role in addressing discrimination by developing

and enforcing clear standards and guidelines, providing education and training, and reviewing fitness to practice processes to address racist or discriminatory behaviour. These efforts are promising, and to ensure regulators are positioned to reform their approaches, evidence must be available to inform decision-making.

We conducted a preliminary search on MEDLINE, the Cochrane Database of Systematic Reviews and Johanna Briggs Institute (JBI) Evidence Synthesis and identified no current in-progress systematic reviews or scoping reviews on this topic. Several knowledge syntheses have been completed on racism and healthcare, 13-16 but to our knowledge, no scoping review has focused on racism and health practitioner regulation. A comprehensive understanding of the current state of literature can help identify knowledge gaps and inform the development of research agendas that can build the evidence base required to improve health practitioner regulators' approaches to addressing racism across professions and jurisdictions. We identified a scoping review as the most appropriate methodology because our focus is on mapping the existing literature and providing an overview of evidence, concepts and studies related to racism and health practitioner regulation. 17 18

## **Objective and review questions**

The overarching objective of this scoping review is to map the body of literature related to racism and health practitioner regulation. The research questions guiding our review include:

- a. What is the nature, extent and range of literature on racism and health practitioner regulation?
- b. In what ways do health practitioner regulators' policies and practices contribute to and perpetuate interpersonal or institutional racism?
- c. What actions have health practitioner regulators implemented, or what can be implemented, to address racism experienced by healthcare practitioners and patients within healthcare systems?

## **METHODS AND ANALYSIS**

This protocol has been developed using the reporting guidelines in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for protocols (PRISMA) as they apply to scoping reviews (see online supplemental file 1). <sup>19</sup> We will conduct this scoping review in accordance with the JBI methodology for scoping reviews. <sup>20</sup>

## **Eligibility criteria**

#### **Population**

The population of interest includes health practitioner regulators (also known as regulatory bodies, licensing bodies, regulatory colleges, regulatory boards and regulatory councils) of any health profession. Although health practitioner regulation can include occupational rules created and enforced by various bodies such as nongovernmental or self-regulatory bodies, our review focuses



on regulatory bodies operating under government delegation or recognition.<sup>5</sup> Typical regulatory functions of health practitioner regulators include overseeing education programmes, enforcing licensure requirements and maintaining public registers, developing and enforcing standards of practice and code of ethics, and addressing unprofessional conduct.<sup>5</sup> Any health profession identified in the International Standard Classification of Occupations<sup>21</sup> will be included. As a result, regulators of medical doctors, nursing and midwifery professionals, traditional and complementary medicine professionals, paramedical practitioners and other health professionals (including dentists, pharmacists, environmental and occupational health and hygiene professionals, physiotherapists, dieticians and nutritionists, audiologists and speech therapists, optometrist and ophthalmic opticians, and health professionals not elsewhere classified) will be included.

## Concept

While a variety of definitions can be used to characterise this complex phenomenon, we define racism as systems of oppression and discrimination that unjustly impact specific populations, which are rooted in historical, social, political and cultural exclusionary ideologies of racialisation. 22-24 Under these systems, racialised minorities are subjected to differential treatment which results in adverse health and healthcare outcomes.<sup>3</sup> We focus on both interpersonal racism which involves intentional or unintentional discriminatory attitudes and behaviours between individuals (eg, interactions between regulatory staff and registrants or interactions between regulated professionals and patients), and institutional racism where racist ideologies are surfaced through power and material conditions across institutions (eg, a disproportionate portion of racialised groups represented in disciplinary processes). 22 25 Our review will identify papers that explore how health practitioner regulators' policies and practices contribute to and perpetuate interpersonal and institutional racism and the actions that they can take to address racism experienced by health practitioners and patients within health systems.

#### Context

The context includes health practitioner regulation in any jurisdiction and country worldwide at the national or state/territory/provincial levels.

## **Types of sources**

We will consider a wide range of sources including quantitative, mixed-methods and qualitative studies. Quantitative studies may include experimental and quasi-experimental study designs including randomised controlled trials, non-randomised controlled trials, before and after studies and interrupted time-series studies; analytical observational studies; case—control studies; analytical cross-sectional studies and descriptive observational study designs. Qualitative studies may include but are not limited to designs such as phenomenology,

grounded theory, ethnography, qualitative description, interpretive description and action research. Discussion papers, commentaries and opinion papers will also be considered if they provide substantive exploration, examination or critique of health practitioner regulation and racism. Theses will be included given the potential for in-depth exploration of the topic. We will search for grey literature from regulatory consortiums and think tanks. Systematic reviews will be excluded; however, reference lists will be screened for relevant studies. Books will be excluded and unavailable full-text articles will be excluded unless they can be accessed through interlibrary loans. Non-English sources will be excluded due to the lack of translation services. Given that our overarching goal is to map the nature, extent and range of literature, time frame delimitations will not be set to determine whether the concepts and terms used to describe racism have changed over time. Attention will be placed on the time frame of included articles to ensure our findings carefully differentiate between out-of-date and contemporary regulatory policies and practices (see online supplemental file 2 for the inclusion and exclusion criteria).

## **Search strategy**

A professional research librarian was throughout the development of the search strategy. An initial limited search of Ovid MEDLINE was undertaken to identify articles on our review topic (see online supplemental file 3). All identified keywords and index terms were adapted for each database or information source and searches in Ovid MEDLINE, EMBASE, CINAHL, Scopus and Web of Science Core Collection were conducted on 15 March 2024 (see online supplemental file 4). We will screen the reference list of all included articles to identify additional papers. Given our goal of exploring the extent and range of scholarship, we will not place any limitations on the time frame. We will search for grey literature using the websites of leading regulatory organisations such as the Association of Social Work Boards; Australian Health Practitioner Regulation Agency; Canadian Network of Agencies for Regulation; Council on Licensure, Enforcement and Regulation; Federation of Medical Regulatory Authorities of Canada; Federation of State Medical Boards; International Association of Medical Regulatory Authorities; Professional Standards Authority; National Council of State Boards of Nursing (NSCBN); Organisation for Economic Co-operation and Development (OECD) and World Physiotherapy. In addition, we will search the first 200 citations from Google Scholar.

## Study/source of evidence selection

We will collate and upload all identified citations into Covidence (2023),<sup>26</sup> a review management software. Following a pilot test using 10% of the papers, titles and abstracts will be screened by two or more independent reviewers for assessment against the inclusion criteria. Potentially relevant sources will be retrieved in full text. The full text of selected citations will be assessed in detail



against the inclusion criteria by two or more independent reviewers. We will record and report reasons for excluding papers during full-text review that do not meet the inclusion criteria. Any disagreements between the reviewers at each stage of the selection process will be resolved by a third reviewer. Citations of included studies will be uploaded into Mendeley,<sup>27</sup> a reference manager software programme. The reporting of the results will be guided by the PRISMA for Scoping Reviews (PRISMA-ScR).<sup>28</sup>

## **DATA EXTRACTION**

Data will be independently extracted from included sources by two reviewers using a data extraction tool developed by the research team (see online supplemental file 5). The data extracted will include the year of publication, type of publication, focus and aim of the paper, health profession, jurisdiction/country and key findings/ concepts. The draft data extraction tool will be modified and revised as necessary during data extraction. The data extraction tool will be piloted using 10% of the included articles and discrepancies will be resolved through discussion and consensus. Any modifications made to the extraction tool will be detailed in the scoping review findings. If appropriate and when required, we will contact authors of papers to request missing or additional data. Critical appraisal of individual sources of evidence will not be completed as this is generally not required for scoping reviews.

## **Data analysis and presentation**

Our analysis and presentation will involve both descriptive statistics and a narrative summary. Frequency counts and percentages for data such as year of publication, type of publication, areas of focus, type of health professionals discussed and jurisdictions will be presented to illustrate trends. We will use conventional content analysis<sup>29</sup> to identify and map out the key purpose, aims, findings and concepts within the included papers. This is an appropriate analytical method as it enables the development of broader categories based on coded data. We will develop a narrative summary to accompany the evidence tables and further describe how the results relate to the review objective and review questions. To ensure the overall reporting quality of this scoping review, we will follow the PRISMA-ScR. All retrieved records from the search strategy, included and excluded records from primary and secondary screening, and records retrieved from other sources will be reported using an adapted PRISMA flow diagram to enhance the reproducibility of this scoping review.

## **Ethics and dissemination**

Ethics approval is not applicable to this scoping review protocol. This review was registered with the Open Science Framework<sup>30</sup> on 8 January 2024. We will disseminate findings through conferences focused on health workforce and professional regulation, meetings with

leaders of health practitioner regulatory bodies and a publication in a peer-reviewed journal.

## Patient and public involvement

This study involves analysis and synthesis of existing literature, and therefore, involves no patients or members of the public.

## X Janice Y Kung @janicekung

**Contributors** PC conceived the idea for this scoping review and developed the research questions, objectives and inclusion criteria. PC, SL-P, KL and JYK contributed to the creation of the search strategy. PC, SL-P and KL contributed to the drafting and editing of the scoping review protocol. PC is the guarantor and all authors read and approved the final manuscript.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

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## **Supplementary File 1: PRISMA-P 2015 Checklist**

Section/topic #		Checklist item re		n	Page
			Yes	No	number(s)
ADMINISTRATIVE IN	IFORMAT	TON			
Title					
Identification	1a	Identify the report as a protocol of a systematic review.			Identified as a scoping review.
Update	1b	If the protocol is for an update of a previous systematic review, identify as such.			Not an update.
Registration	2	If registered, provide the name of the registry (e.g., PROSPERO) and registration number in the Abstract			Page 12
Authors					
Contact	3a	Provide name, institutional affiliation, and e-mail address of all protocol authors; provide physical mailing address of corresponding author			Title page
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review			Page 12
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments			N/A
Support					
Sources	5a	Indicate sources of financial or other support for the review			Funding statement (no funding) on page 12.
Sponsor	5b	Provide name for the review funder and/or sponsor			N/A
Role of sponsor/funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol			N/A
INTRODUCTION					
Rationale	6	Describe the rationale for the review in the context of what is already known			Background section, page 4-6.

Section/topic	#	Checklist item	Information reported		Page
			Yes	No	number(s)
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO).			Review question uses PCC rather than PICO. Objective and review questions on page 7.
METHODS					
Eligibility criteria	8	Specify the study characteristics (e.g., PICO, study design, setting, time frame) and report characteristics (e.g., years considered, language, publication status) to be used as criteria for eligibility for the review			Page 7
Information sources	9	Describe all intended information sources (e.g., electronic databases, contact with study authors, trial registers, or other grey literature sources) with planned dates of coverage			Page 9
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated			Draft strategy in Supplementary File 2. Full search strategy in Supplementary File 3.
STUDY RECORDS					
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review			Page 10-11
Selection process	11b	State the process that will be used for selecting studies (e.g., two independent reviewers) through each phase of the review (i.e., screening, eligibility, and inclusion in meta-analysis)			Page 10-11
Data collection process	11c	Describe planned method of extracting data from reports (e.g., piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators			Page 11
Data items	12	List and define all variables for which data will be sought (e.g., PICO items, funding sources), any pre-planned data assumptions and simplifications.			Page 7-8

Section/topic	#		Informatio reported	Page	
			Yes	No	number(s)
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale.			N/A for scoping reviews
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis.			N/A for scoping reviews
DATA					
Synthesis	15a	Describe criteria under which study data will be quantitatively synthesized			Page 11-12
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data, and methods of combining data from studies, including any planned exploration of consistency (e.g., $I^2$ , Kendall's tau)			N/A
	15c	Describe any proposed additional analyses (e.g., sensitivity or subgroup analyses, meta-regression)			N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned			Page 11-12
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (e.g., publication bias across studies, selective reporting within studies)			N/A for scoping reviews.
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (e.g., GRADE)			N/A for scoping reviews.

From: Moher, D., Shamseer, L., Clarke, M. et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev. 2015;4(1):1. doi.org/10.1186/2046-4053-4-1

## **Supplementary File 2: Inclusion/Exclusion Screening Form**

Criteria	Process
1. Language	The full text is available in English.
	<ul> <li>If no, exclude based on language.</li> </ul>
	• If yes, move to criteria 2.
2. Sources	The paper is either published primary research (quantitative,
	qualitative, mixed methods), a discussion paper, commentary,
	opinion paper, or grey literature (documents and reports from
	regulators or regulatory consortiums).
	<ul> <li>If no, exclude based on source.</li> </ul>
	• If yes, move to criteria 3.
3. Geographical location (Context)	No limitations on geographical location, move to criteria 4.
4. Population	The paper focuses on health practitioner regulators.
	<ul> <li>If no, exclude based on population.</li> </ul>
	• If yes, move to criteria 5.
5 0	
5. Concept	The paper focuses on how health practitioner regulators
	contribute to or perpetuate interpersonal or institutional
	racism, or the actions health practitioner regulators can take to
	address racism.
	If no, exclude based on concept.  If no in the latest terms are the
	If yes, include.

## **Supplementary File 3: Ovid MEDLINE Search Strategy**

#	Query	Results from
		Dec 18 2023
1	((acupuncturist* or allergist* or anatomist* or an?esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h?ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurologist* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p?ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) adj4 (registration* or regulat* or licensing or licensure or certificat* or credential*)).mp.	9762
2	exp Licensure/	18327
3	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) adj4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*)).mp.	7211
4	((licens* or regulat* or certification* or credential*) adj1 (authorit* or agency or agencies or body or bodies or college* or council* or board*)).mp.	23242
5	or/1-4	53852
6	Prejudice/	25634
7	Racism/	6672
8	Xenophobia/	100
9	Social Discrimination/	1633
10	Social Inclusion/ or Social Isolation/ or Social Marginalization/ or Social Stigma/	30031
11	exp Race Factors/	1247
12	(antiracis* or anti-racis* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian* or anti-asian*).mp.	1597
13	(ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension* or hate speech or hate crime*).mp.	540
14	(racial* or racism or racist* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit* or visible minorit* or discriminat* or prejudice* or prejudge* or "unfair treat*" or "unequal treat*" or stigma* or marginali* or xenophobi* or alienat* or "social* inclu*" or "social* exclu*" or microaggres* or microaggres*).mp	509557

15	exp Cultural Competency/	6600
16	(cultural* competen* or cultural sensitivit* or humility).mp.	16009
17	or/6-16	537605
18	5 and 17	928
19	limit 18 to english language	897

## **Supplementary File 4: Full Search Strategies**

The medical librarian (JYK) developed and executed comprehensive searches in Ovid MEDLINE, Ovid Embase, CINAHL, Scopus, and Web of Science Core Collection on March 15, 2024.

Database	Sea	arch Strategy
MEDLINE  Ovid  MEDLINE(R)  ALL 1946 to  March 14, 2024	1.	((acupuncturist* or allergist* or anatomist* or an?esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h?ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurosurgeon* or nurse or nurses or nutritionist* or obstetrician* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p?ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) adj4 (registration* or regulat* or licensing or licensure or certificat* or credential*)).mp.
	2.	exp Licensure/
	3.	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) adj4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*)).mp.
	4.	((licens* or regulat* or certification* or credential*) adj1 (authorit* or agency or agencies or body or bodies or college* or council* or board*)).mp.
	5.	or/1-4
	6.	Prejudice/
	7.	Racism/
	8.	Xenophobia/
	9.	Social Discrimination/
	10.	Social Inclusion/ or Social Isolation/ or Social Marginalization/ or Social Stigma/

- 11. exp Race Factors/
- 12. (antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*).mp.
- 13. (ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension\* or hate speech or hate crime\*).mp.
- 14. (racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit\* or visible minorit\* or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or micro aggres\*).mp.
- 15. exp Cultural Competency/
- 16. (cultural\* competen\* or cultural sensitivit\* or humility).mp.
- 17. or/6-16
- 18. 5 and 17
- 19. limit 18 to english language
- 20. (veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\$1 or canine or dog or dogs or feline or cat or cats or zebrafish).ti.
- 21. 19 not 20

#### **Embase**

## Embase 1974 to 2024 March 14

((acupuncturist\* or allergist\* or anatomist\* or an?esthesiologist\* or 1. anesthetist\* or audiologist\* or cardiologist\* or chiropractor\* or clinician\* or dentist\* or dermatologist\* or diabetologist\* or dietician\* or doctor\* or doula or doulas or endocrinologist\* or gastroenterologist\* or general practitioner\* or geriatrician\* or gynecologist\* or h?ematologist\* or hospitalist\* or immunologist\* or intensivist\* or internist\* or medical resident\* or midwife or midwives or neonatologist\* or nephrologist\* or neurologist\* or neurosurgeon\* or nurse or nurses or nutritionist\* or obstetrician\* or oncologist\* or ophthalmologist\* or optometrist\* or osteopath or osteopaths or otolaryngologist\* or pathologist\* or p?ediatrician\* or pharmacist\* or pharmacologist\* or phlebotomist\* or physician\* or podiatrist\* or prosthetist\* or psychologist\* or psychiatrist\* or pulmonologist\* or radiographer\* or radiologist\* or radiotherapist\* or rheumatologist\* or surgeon\* or therapist\* or toxicologist\* or urologist\* or veterinarian\*)

- adj4 (registration\* or regulat\* or licensing or licensure or certificat\* or credential\*)).mp.
- 2. exp licensing/
- 3. ((worker\* or workforce or personnel or practitioner\* or provider\* or professional\* or employee\* or staff\* or navigator\*) adj4 (registration\* or regulatory or regulation\* or licensing or licensure or certificat\* or credential\*)).mp.
- 4. ((licens\* or regulat\* or certification\* or credential\*) adj1 (authorit\* or agency or agencies or body or bodies or college\* or council\* or board\*)).mp.
- 5. or/1-4
- 6. prejudice/
- 7. exp racism/
- 8. xenophobia/
- 9. social discrimination/
- 10. social inclusion/ or social isolation/ or social exclusion/ or social stigma/
- 11. (antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*).mp.
- 12. (ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension\* or hate speech or hate crime\*).mp.
- 13. (racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit\* or visible minorit\* or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or microaggres\*).mp.
- 14. exp cultural competence/ or exp cultural sensitivity/
- 15. (cultural\* competen\* or cultural sensitivit\* or humility).mp.
- 16. or/6-15
- 17. 5 and 16
- 18. limit 17 to english language
- 19. (veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle

		or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\$1 or canine or dog or dogs or feline or cat or cats or zebrafish).ti.
	20.	18 not 19
CINAHL	S1	((acupuncturist* or allergist* or anatomist* or an#esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h#ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurosurgeon* or nurse or nurses or nutritionist* or obstetrician* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p#ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or psychiatrist* or pulmonologist* or radiographer* or radiologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) N4 (registration* or regulat* or licensing or licensure or certificat* or credential*))
	S2	(MH "Licensure+")
	<b>S</b> 3	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) N4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*))
	S4	((licens* or regulat* or certification* or credential*) N1 (authorit* or agency or agencies or body or bodies or college* or council* or board*))
	S5	S1 OR S2 OR S3 OR S4
	S6	(MH "Prejudice+")
	S7	(MH "Racism+")
	S8	"Xenophobia"
	<b>S</b> 9	(MH "Discrimination+")
	S10	(MH "Social Inclusion")
	S11	
	S12	(MH "Race Factors")

- S13 antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*
- S14 "ethnic hatred" or "inter-ethnic hatred" or "racial hatred" or "ethnic tension\*" or "hate speech" or "hate crime\*"
- S15 racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or "ethnic minorit\*" or "visible minorit\*" or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or micro aggres\*
- \$16 (MH "Cultural Competence")
- S17 "cultural\* competen\*" or "cultural sensitivit\*" or humility
- S18 S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17
- S19 S5 AND S18
- S20 TI veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\* or canine or dog or dogs or feline or cat or cats or zebrafish
- S21 S19 NOT S20
- S22 S19 NOT S20 (Limiter: English language)

#### **Scopus**

(TITLE-ABS-KEY ( (acupuncturist\* OR allergist\* OR anatomist\* OR anesthesiologist\* OR anesthetist\* OR audiologist\* OR cardiologist\* OR chiropractor\* OR clinician\* OR dentist\* OR dermatologist\* OR diabetologist\* OR dietician\* OR doctor\* OR doula OR doulas OR endocrinologist\* OR gastroenterologist\* OR "general practitioner\*" OR geriatrician\* OR gynecologist\* OR hematologist\* OR hospitalist\* OR immunologist\* OR intensivist\* OR internist\* OR "medical resident\*" OR midwife OR midwives OR neonatologist\* OR nephrologist\* OR neurologist\* OR neurosurgeon\* OR nurse OR nurses OR nutritionist\* OR obstetrician\* OR oncologist\* OR ophthalmologist\* OR optometrist\* OR osteopath OR osteopaths OR otolaryngologist\* OR pathologist\* OR pediatrician\* OR paediatrician\* OR pharmacist\* OR pharmacologist\* OR phlebotomist\* OR physician\* OR podiatrist\* OR prosthetist\* OR psychologist\* OR psychiatrist\* OR pulmonologist\* OR radiographer\* OR radiologist\* OR radiotherapist\* OR rheumatologist\* OR surgeon\* OR therapist\* OR toxicologist\* OR urologist\* OR veterinarian\* ) W/4 (

registration\* OR regulat\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TITLE-ABS-KEY ( ( worker\* OR workforce OR personnel OR practitioner\* OR provider\* OR professional\* OR employee\* OR staff\* OR navigator\* ) W/4 ( registration\* OR regulatory OR regulation\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TITLE-ABS-KEY ( ( licens\* OR regulat\* OR certification\* OR credential\* ) W/1 (authorit\* OR agency OR agencies OR body OR bodies OR college\* OR council\* OR board\* ) ) ) AND TITLE-ABS-KEY ( "ethnic hatred" OR "inter-ethnic hatred" OR "ethnic tension\*" OR "hate speech" OR "hate crime\*" OR racial\* OR racism OR racist\* OR "people of colour" OR "people of color" OR "person of colour" OR "person of color" OR "ethnic minorit\*" OR "visible minorit\*" OR discriminat\* OR prejudice\* OR prejudge\* OR "unfair treat\*" OR "unequal treat\*" OR stigma\* OR marginali\* OR xenophobi\* OR alienat\* OR "social\* inclu\*" OR "social\* exclu\*" OR microaggres\* OR "micro aggres\*" OR "cultural\* competen\*" OR "cultural sensitivit\*" OR humility ) AND NOT (TITLE (veterinary OR rabbit OR rabbits OR animal OR animals OR mouse OR mice OR rodent OR rodents OR rat OR rats OR murine OR hamster\* OR pig OR pigs OR piglets OR swine OR porcine OR horse\* OR equine OR cow OR cows OR cattle OR bovine OR goat OR goats OR sheep OR lambs OR ovine OR monkey OR monkeys OR trout OR marmoset\* OR canine OR dog OR dogs OR feline OR cat OR cats OR zebrafish ) ) AND ( LIMIT-TO ( LANGUAGE, "English")

## Web of Science Core Collection

&

# ProQuest<sup>TM</sup> Dissertations & Theses Citation Index

(via Clarivate)

(TS=( (acupuncturist\* OR allergist\* OR anatomist\* OR anesthesiologist\* OR anesthetist\* OR audiologist\* OR cardiologist\* OR chiropractor\* OR clinician\* OR dentist\* OR dermatologist\* OR diabetologist\* OR dietician\* OR doctor\* OR doula OR doulas OR endocrinologist\* OR gastroenterologist\* OR "general practitioner\*" OR geriatrician\* OR gynecologist\* OR hematologist\* OR hospitalist\* OR immunologist\* OR intensivist\* OR internist\* OR "medical resident\*" OR midwife OR midwives OR neonatologist\* OR nephrologist\* OR neurologist\* OR neurosurgeon\* OR nurse OR nurses OR nutritionist\* OR obstetrician\* OR oncologist\* OR ophthalmologist\* OR optometrist\* OR osteopath OR osteopaths OR otolaryngologist\* OR pathologist\* OR pediatrician\* OR paediatrician\* OR pharmacist\* OR pharmacologist\* OR phlebotomist\* OR physician\* OR podiatrist\* OR prosthetist\* OR psychologist\* OR psychiatrist\* OR pulmonologist\* OR radiographer\* OR radiologist\* OR radiotherapist\* OR rheumatologist\* OR surgeon\* OR therapist\* OR toxicologist\* OR urologist\* OR veterinarian\* ) NEAR/4 (registration\* OR regulat\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TS=( ( worker\* OR workforce OR personnel OR practitioner\* OR provider\* OR professional\* OR employee\* OR staff\* OR navigator\* ) NEAR/4 ( registration\* OR regulatory OR regulation\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TS=( ( licens\* OR regulat\* OR

certification\* OR credential\* ) NEAR/1 ( authorit\* OR agency OR agencies OR body OR bodies OR college\* OR council\* OR board\* ) ) ) AND TS=( "ethnic hatred" OR "inter-ethnic hatred" OR "ethnic tension\*" OR "hate speech" OR "hate crime\*" OR racial\* OR racism OR racist\* OR "people of colour" OR "people of color" OR "person of colour" OR "person of color" OR "ethnic minorit\*" OR "visible minorit\*" OR discriminat\* OR prejudice\* OR prejudge\* OR "unfair treat\*" OR "unequal treat\*" OR stigma\* OR marginali\* OR xenophobi\* OR alienat\* OR "social\* inclu\*" OR "social\* exclu\*" OR microaggres\* OR "micro aggres\*" OR "cultural\* competen\*" OR "cultural sensitivit\*" OR humility ) NOT TI= ( veterinary OR rabbit OR rabbits OR animal OR animals OR mouse OR mice OR rodent OR rodents OR rat OR rats OR murine OR hamster\* OR pig OR pigs OR piglets OR swine OR porcine OR horse\* OR equine OR cow OR cows OR cattle OR bovine OR goat OR goats OR sheep OR lambs OR ovine OR monkey OR monkeys OR trout OR marmoset\* OR canine OR dog OR dogs OR feline OR cat OR cats OR zebrafish)

Languages: English

## **Supplementary File 5: Data Extraction Instrument**

ID	Author	Year	Type of publication	Purpose and Aim	Health Profession	Jurisdiction (country)	Key Findings or Concepts
			Quantitative				
			Qualitative				
			Discussion papers				
			Commentaries and opinion papers				
			Theses				
			Grey literature				

## **Supplementary File 1: PRISMA-P 2015 Checklist**

Section/topic #		Checklist item re		n	Page
			Yes	No	number(s)
ADMINISTRATIVE IN	IFORMAT	TON			
Title					
Identification	1a	Identify the report as a protocol of a systematic review.			Identified as a scoping review.
Update	1b	If the protocol is for an update of a previous systematic review, identify as such.			Not an update.
Registration	2	If registered, provide the name of the registry (e.g., PROSPERO) and registration number in the Abstract			Page 12
Authors					
Contact	3a	Provide name, institutional affiliation, and e-mail address of all protocol authors; provide physical mailing address of corresponding author			Title page
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review			Page 12
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments			N/A
Support					
Sources	5a	Indicate sources of financial or other support for the review			Funding statement (no funding) on page 12.
Sponsor	5b	Provide name for the review funder and/or sponsor			N/A
Role of sponsor/funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol			N/A
INTRODUCTION					
Rationale	6	Describe the rationale for the review in the context of what is already known			Background section, page 4-6.

Section/topic	#	Checklist item	Information reported		Page
			Yes	No	number(s)
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO).			Review question uses PCC rather than PICO. Objective and review questions on page 7.
METHODS					
Eligibility criteria	8	Specify the study characteristics (e.g., PICO, study design, setting, time frame) and report characteristics (e.g., years considered, language, publication status) to be used as criteria for eligibility for the review			Page 7
Information sources	9	Describe all intended information sources (e.g., electronic databases, contact with study authors, trial registers, or other grey literature sources) with planned dates of coverage			Page 9
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated			Draft strategy in Supplementary File 2. Full search strategy in Supplementary File 3.
STUDY RECORDS					
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review			Page 10-11
Selection process	11b	State the process that will be used for selecting studies (e.g., two independent reviewers) through each phase of the review (i.e., screening, eligibility, and inclusion in meta-analysis)			Page 10-11
Data collection process	11c	Describe planned method of extracting data from reports (e.g., piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators			Page 11
Data items	12	List and define all variables for which data will be sought (e.g., PICO items, funding sources), any pre-planned data assumptions and simplifications.			Page 7-8

Section/topic	#		Informatio reported	Page	
			Yes	No	number(s)
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale.			N/A for scoping reviews
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis.			N/A for scoping reviews
DATA					
Synthesis	15a	Describe criteria under which study data will be quantitatively synthesized			Page 11-12
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data, and methods of combining data from studies, including any planned exploration of consistency (e.g., $I^2$ , Kendall's tau)			N/A
	15c	Describe any proposed additional analyses (e.g., sensitivity or subgroup analyses, meta-regression)			N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned			Page 11-12
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (e.g., publication bias across studies, selective reporting within studies)			N/A for scoping reviews.
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (e.g., GRADE)			N/A for scoping reviews.

From: Moher, D., Shamseer, L., Clarke, M. et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev. 2015;4(1):1. doi.org/10.1186/2046-4053-4-1

## **Supplementary File 2: Inclusion/Exclusion Screening Form**

Criteria	Process			
1. Language	The full text is available in English.			
	<ul> <li>If no, exclude based on language.</li> </ul>			
	• If yes, move to criteria 2.			
2. Sources	The paper is either published primary research (quantitative,			
	qualitative, mixed methods), a discussion paper, commentary,			
	opinion paper, or grey literature (documents and reports from			
	regulators or regulatory consortiums).			
	<ul> <li>If no, exclude based on source.</li> </ul>			
	• If yes, move to criteria 3.			
3. Geographical location (Context)	No limitations on geographical location, move to criteria 4.			
4. Population	The paper focuses on health practitioner regulators.			
	<ul> <li>If no, exclude based on population.</li> </ul>			
	• If yes, move to criteria 5.			
5. Concept	The paper focuses on how health practitioner regulators			
	contribute to or perpetuate interpersonal or institutional			
	racism, or the actions health practitioner regulators can take to			
	address racism.			
	If no, exclude based on concept.			
	• If yes, include.			

## **Supplementary File 3: Ovid MEDLINE Search Strategy**

#	Query	Results from
		Dec 18 2023
1	((acupuncturist* or allergist* or anatomist* or an?esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h?ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurologist* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p?ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) adj4 (registration* or regulat* or licensing or licensure or certificat* or credential*)).mp.	9762
2	exp Licensure/	18327
3	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) adj4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*)).mp.	7211
4	((licens* or regulat* or certification* or credential*) adj1 (authorit* or agency or agencies or body or bodies or college* or council* or board*)).mp.	23242
5	or/1-4	53852
6	Prejudice/	25634
7	Racism/	6672
8	Xenophobia/	100
9	Social Discrimination/	1633
10	Social Inclusion/ or Social Isolation/ or Social Marginalization/ or Social Stigma/	30031
11	exp Race Factors/	1247
12	(antiracis* or anti-racis* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian* or anti-asian*).mp.	1597
13	(ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension* or hate speech or hate crime*).mp.	540
14	(racial* or racism or racist* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit* or visible minorit* or discriminat* or prejudice* or prejudge* or "unfair treat*" or "unequal treat*" or stigma* or marginali* or xenophobi* or alienat* or "social* inclu*" or "social* exclu*" or microaggres* or microaggres*).mp	509557

15	exp Cultural Competency/	6600
16	(cultural* competen* or cultural sensitivit* or humility).mp.	16009
17	or/6-16	537605
18	5 and 17	928
19	limit 18 to english language	897

## **Supplementary File 4: Full Search Strategies**

The medical librarian (JYK) developed and executed comprehensive searches in Ovid MEDLINE, Ovid Embase, CINAHL, Scopus, and Web of Science Core Collection on March 15, 2024.

Database	Sea	Search Strategy			
MEDLINE  Ovid  MEDLINE(R)  ALL 1946 to  March 14, 2024	1.	((acupuncturist* or allergist* or anatomist* or an?esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h?ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurosurgeon* or nurse or nurses or nutritionist* or obstetrician* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p?ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) adj4 (registration* or regulat* or licensing or licensure or certificat* or credential*)).mp.			
	2.	exp Licensure/			
	3.	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) adj4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*)).mp.			
	4.	((licens* or regulat* or certification* or credential*) adj1 (authorit* or agency or agencies or body or bodies or college* or council* or board*)).mp.			
	5.	or/1-4			
	6.	Prejudice/			
	7.	Racism/			
	8.	Xenophobia/			
	9.	Social Discrimination/			
	10.	Social Inclusion/ or Social Isolation/ or Social Marginalization/ or Social Stigma/			

- 11. exp Race Factors/
- 12. (antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*).mp.
- 13. (ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension\* or hate speech or hate crime\*).mp.
- 14. (racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit\* or visible minorit\* or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or micro aggres\*).mp.
- 15. exp Cultural Competency/
- 16. (cultural\* competen\* or cultural sensitivit\* or humility).mp.
- 17. or/6-16
- 18. 5 and 17
- 19. limit 18 to english language
- 20. (veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\$1 or canine or dog or dogs or feline or cat or cats or zebrafish).ti.
- 21. 19 not 20

#### **Embase**

## Embase 1974 to 2024 March 14

((acupuncturist\* or allergist\* or anatomist\* or an?esthesiologist\* or 1. anesthetist\* or audiologist\* or cardiologist\* or chiropractor\* or clinician\* or dentist\* or dermatologist\* or diabetologist\* or dietician\* or doctor\* or doula or doulas or endocrinologist\* or gastroenterologist\* or general practitioner\* or geriatrician\* or gynecologist\* or h?ematologist\* or hospitalist\* or immunologist\* or intensivist\* or internist\* or medical resident\* or midwife or midwives or neonatologist\* or nephrologist\* or neurologist\* or neurosurgeon\* or nurse or nurses or nutritionist\* or obstetrician\* or oncologist\* or ophthalmologist\* or optometrist\* or osteopath or osteopaths or otolaryngologist\* or pathologist\* or p?ediatrician\* or pharmacist\* or pharmacologist\* or phlebotomist\* or physician\* or podiatrist\* or prosthetist\* or psychologist\* or psychiatrist\* or pulmonologist\* or radiographer\* or radiologist\* or radiotherapist\* or rheumatologist\* or surgeon\* or therapist\* or toxicologist\* or urologist\* or veterinarian\*)

- adj4 (registration\* or regulat\* or licensing or licensure or certificat\* or credential\*)).mp.
- 2. exp licensing/
- 3. ((worker\* or workforce or personnel or practitioner\* or provider\* or professional\* or employee\* or staff\* or navigator\*) adj4 (registration\* or regulatory or regulation\* or licensing or licensure or certificat\* or credential\*)).mp.
- 4. ((licens\* or regulat\* or certification\* or credential\*) adj1 (authorit\* or agency or agencies or body or bodies or college\* or council\* or board\*)).mp.
- 5. or/1-4
- 6. prejudice/
- 7. exp racism/
- 8. xenophobia/
- 9. social discrimination/
- 10. social inclusion/ or social isolation/ or social exclusion/ or social stigma/
- 11. (antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*).mp.
- 12. (ethnic hatred or inter-ethnic hatred or racial hatred or ethnic tension\* or hate speech or hate crime\*).mp.
- 13. (racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or ethnic minorit\* or visible minorit\* or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or microaggres\*).mp.
- 14. exp cultural competence/ or exp cultural sensitivity/
- 15. (cultural\* competen\* or cultural sensitivit\* or humility).mp.
- 16. or/6-15
- 17. 5 and 16
- 18. limit 17 to english language
- 19. (veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle

		or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\$1 or canine or dog or dogs or feline or cat or cats or zebrafish).ti.		
	20.	18 not 19		
CINAHL	S1	((acupuncturist* or allergist* or anatomist* or an#esthesiologist* or anesthetist* or audiologist* or cardiologist* or chiropractor* or clinician* or dentist* or dermatologist* or diabetologist* or dietician* or doctor* or doula or doulas or endocrinologist* or gastroenterologist* or general practitioner* or geriatrician* or gynecologist* or h#ematologist* or hospitalist* or immunologist* or intensivist* or internist* or medical resident* or midwife or midwives or neonatologist* or nephrologist* or neurologist* or neurosurgeon* or nurse or nurses or nutritionist* or obstetrician* or oncologist* or ophthalmologist* or optometrist* or osteopath or osteopaths or otolaryngologist* or pathologist* or p#ediatrician* or pharmacist* or pharmacologist* or phlebotomist* or physician* or podiatrist* or prosthetist* or psychologist* or psychiatrist* or pulmonologist* or radiographer* or radiologist* or radiotherapist* or rheumatologist* or surgeon* or therapist* or toxicologist* or urologist* or veterinarian*) N4 (registration* or regulat* or licensing or licensure or certificat* or credential*))		
S		(MH "Licensure+")		
	<b>S</b> 3	((worker* or workforce or personnel or practitioner* or provider* or professional* or employee* or staff* or navigator*) N4 (registration* or regulatory or regulation* or licensing or licensure or certificat* or credential*))		
	S4	((licens* or regulat* or certification* or credential*) N1 (authorit* or agency or agencies or body or bodies or college* or council* or board*))		
	S5	S1 OR S2 OR S3 OR S4		
	S6	(MH "Prejudice+")		
	S7	(MH "Racism+")		
	<b>S</b> 8	"Xenophobia"		
	S9	(MH "Discrimination+")		
	S10	(MH "Social Inclusion")		
	S11	(MH "Social Isolation+")		
	S12	(MH "Race Factors")		

- S13 antiracis\* or anti-racis\* or antiblack or anti-black or antiindigenous or anti-indigenous or antiasian\* or anti-asian\*
- S14 "ethnic hatred" or "inter-ethnic hatred" or "racial hatred" or "ethnic tension\*" or "hate speech" or "hate crime\*"
- S15 racial\* or racism or racist\* or "people of colour" or "people of color" or "person of colour" or "person of color" or "ethnic minorit\*" or "visible minorit\*" or discriminat\* or prejudice\* or prejudge\* or "unfair treat\*" or "unequal treat\*" or stigma\* or marginali\* or xenophobi\* or alienat\* or "social\* inclu\*" or "social\* exclu\*" or microaggres\* or micro aggres\*
- \$16 (MH "Cultural Competence")
- S17 "cultural\* competen\*" or "cultural sensitivit\*" or humility
- S18 S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17
- S19 S5 AND S18
- S20 TI veterinary or rabbit or rabbits or animal or animals or mouse or mice or rodent or rodents or rat or rats or murine or hamster\* or pig or pigs or piglets or swine or porcine or horse\* or equine or cow or cows or cattle or bovine or goat or goats or sheep or lambs or ovine or monkey or monkeys or trout or marmoset\* or canine or dog or dogs or feline or cat or cats or zebrafish
- S21 S19 NOT S20
- S22 S19 NOT S20 (Limiter: English language)

#### **Scopus**

(TITLE-ABS-KEY ( (acupuncturist\* OR allergist\* OR anatomist\* OR anesthesiologist\* OR anesthetist\* OR audiologist\* OR cardiologist\* OR chiropractor\* OR clinician\* OR dentist\* OR dermatologist\* OR diabetologist\* OR dietician\* OR doctor\* OR doula OR doulas OR endocrinologist\* OR gastroenterologist\* OR "general practitioner\*" OR geriatrician\* OR gynecologist\* OR hematologist\* OR hospitalist\* OR immunologist\* OR intensivist\* OR internist\* OR "medical resident\*" OR midwife OR midwives OR neonatologist\* OR nephrologist\* OR neurologist\* OR neurosurgeon\* OR nurse OR nurses OR nutritionist\* OR obstetrician\* OR oncologist\* OR ophthalmologist\* OR optometrist\* OR osteopath OR osteopaths OR otolaryngologist\* OR pathologist\* OR pediatrician\* OR paediatrician\* OR pharmacist\* OR pharmacologist\* OR phlebotomist\* OR physician\* OR podiatrist\* OR prosthetist\* OR psychologist\* OR psychiatrist\* OR pulmonologist\* OR radiographer\* OR radiologist\* OR radiotherapist\* OR rheumatologist\* OR surgeon\* OR therapist\* OR toxicologist\* OR urologist\* OR veterinarian\* ) W/4 (

registration\* OR regulat\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TITLE-ABS-KEY ( ( worker\* OR workforce OR personnel OR practitioner\* OR provider\* OR professional\* OR employee\* OR staff\* OR navigator\* ) W/4 ( registration\* OR regulatory OR regulation\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TITLE-ABS-KEY ( ( licens\* OR regulat\* OR certification\* OR credential\* ) W/1 (authorit\* OR agency OR agencies OR body OR bodies OR college\* OR council\* OR board\* ) ) ) AND TITLE-ABS-KEY ( "ethnic hatred" OR "inter-ethnic hatred" OR "ethnic tension\*" OR "hate speech" OR "hate crime\*" OR racial\* OR racism OR racist\* OR "people of colour" OR "people of color" OR "person of colour" OR "person of color" OR "ethnic minorit\*" OR "visible minorit\*" OR discriminat\* OR prejudice\* OR prejudge\* OR "unfair treat\*" OR "unequal treat\*" OR stigma\* OR marginali\* OR xenophobi\* OR alienat\* OR "social\* inclu\*" OR "social\* exclu\*" OR microaggres\* OR "micro aggres\*" OR "cultural\* competen\*" OR "cultural sensitivit\*" OR humility ) AND NOT (TITLE (veterinary OR rabbit OR rabbits OR animal OR animals OR mouse OR mice OR rodent OR rodents OR rat OR rats OR murine OR hamster\* OR pig OR pigs OR piglets OR swine OR porcine OR horse\* OR equine OR cow OR cows OR cattle OR bovine OR goat OR goats OR sheep OR lambs OR ovine OR monkey OR monkeys OR trout OR marmoset\* OR canine OR dog OR dogs OR feline OR cat OR cats OR zebrafish ) ) AND ( LIMIT-TO ( LANGUAGE, "English")

## Web of Science Core Collection

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# ProQuest<sup>TM</sup> Dissertations & Theses Citation Index

(via Clarivate)

(TS=( (acupuncturist\* OR allergist\* OR anatomist\* OR anesthesiologist\* OR anesthetist\* OR audiologist\* OR cardiologist\* OR chiropractor\* OR clinician\* OR dentist\* OR dermatologist\* OR diabetologist\* OR dietician\* OR doctor\* OR doula OR doulas OR endocrinologist\* OR gastroenterologist\* OR "general practitioner\*" OR geriatrician\* OR gynecologist\* OR hematologist\* OR hospitalist\* OR immunologist\* OR intensivist\* OR internist\* OR "medical resident\*" OR midwife OR midwives OR neonatologist\* OR nephrologist\* OR neurologist\* OR neurosurgeon\* OR nurse OR nurses OR nutritionist\* OR obstetrician\* OR oncologist\* OR ophthalmologist\* OR optometrist\* OR osteopath OR osteopaths OR otolaryngologist\* OR pathologist\* OR pediatrician\* OR paediatrician\* OR pharmacist\* OR pharmacologist\* OR phlebotomist\* OR physician\* OR podiatrist\* OR prosthetist\* OR psychologist\* OR psychiatrist\* OR pulmonologist\* OR radiographer\* OR radiologist\* OR radiotherapist\* OR rheumatologist\* OR surgeon\* OR therapist\* OR toxicologist\* OR urologist\* OR veterinarian\* ) NEAR/4 (registration\* OR regulat\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TS=( ( worker\* OR workforce OR personnel OR practitioner\* OR provider\* OR professional\* OR employee\* OR staff\* OR navigator\* ) NEAR/4 ( registration\* OR regulatory OR regulation\* OR licensing OR licensure OR certificat\* OR credential\* ) ) OR TS=( ( licens\* OR regulat\* OR

certification\* OR credential\* ) NEAR/1 ( authorit\* OR agency OR agencies OR body OR bodies OR college\* OR council\* OR board\* ) ) ) AND TS=( "ethnic hatred" OR "inter-ethnic hatred" OR "ethnic tension\*" OR "hate speech" OR "hate crime\*" OR racial\* OR racism OR racist\* OR "people of colour" OR "people of color" OR "person of colour" OR "person of color" OR "ethnic minorit\*" OR "visible minorit\*" OR discriminat\* OR prejudice\* OR prejudge\* OR "unfair treat\*" OR "unequal treat\*" OR stigma\* OR marginali\* OR xenophobi\* OR alienat\* OR "social\* inclu\*" OR "social\* exclu\*" OR microaggres\* OR "micro aggres\*" OR "cultural\* competen\*" OR "cultural sensitivit\*" OR humility ) NOT TI= ( veterinary OR rabbit OR rabbits OR animal OR animals OR mouse OR mice OR rodent OR rodents OR rat OR rats OR murine OR hamster\* OR pig OR pigs OR piglets OR swine OR porcine OR horse\* OR equine OR cow OR cows OR cattle OR bovine OR goat OR goats OR sheep OR lambs OR ovine OR monkey OR monkeys OR trout OR marmoset\* OR canine OR dog OR dogs OR feline OR cat OR cats OR zebrafish)

Languages: English

## **Supplementary File 5: Data Extraction Instrument**

ID	Author	Year	Type of publication	Purpose and Aim	Health Profession	Jurisdiction (country)	Key Findings or Concepts
			Quantitative				
			Qualitative				
			Discussion papers				
			Commentaries and opinion papers				
			Theses				
			Grey literature				