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Racism Data in Australia: A Review of Quantitative Studies and Directions for Future Research

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ABSTRACT

There are growing public discussions about racism in Australia with renewed government commitment to addressing it. Robust evidence and high-quality data are important for informing anti-racism. However, current data have serious limitations that impact our knowledge about the nature, prevalence and impact of racism in Australia. To examine the state and limitations of data on racism in Australia, we conducted a stocktake review of quantitative racism data collected nationally until July 2022. This article reports on 32 survey-based research studies and six ongoing organisational reporting initiatives. We organise and classify existing data based on study designs and participant characteristics, as well as the settings, targets, perpetrators, responses to and effects of racism. We identify data gaps and recommend how they may be bridged. First, we recommend further analysis of existing, under-utilised data, to address outstanding questions about perpetrators' demographics, priority localities, and the health and socio-economic outcomes of racism. Second, we recommend new data collection on emerging settings where racism occurs, under-explored forms, cohorts experiencing racism, and responses to racism. We propose this study as a foundation for a national anti-racism research agenda and data management plan in Australia, and as a template for stocktakes in other countries.

1. Introduction

There are growing public discussions about racism in Australia and a new commitment from the Federal and state governments to addressing it (e.g. Australian Human Rights

Commission (AHRC) 2022, State Government of Victoria 2021). Robust, high-quality data[1] are crucial for understanding racism and informing anti-racism. However, existing racism data in Australia have serious limitations. In a concept paper for Australia's next National Anti-Racism Framework (NARF), Australia's Race Discrimination Commissioner Chin Tan observed that, despite the need for comprehensive national data to inform, guide and deliver effective anti-racism, '[r]obust, nationally consistent data about racism and racial inequality is not available in Australia' (AHRC 2021: p. 6). In further scoping its Framework, the AHRC has emphasised the importance of racism data among its key findings, arguing that data are crucial to identifying the prevalence, severity and impact of racism; in nuancing collective understandings of racism necessary for enacting anti-racism; in raising awareness about the extent of racism and inequity; and in securing resources for addressing racism (AHRC 2022: 8, 11). Similar discussions underlining the importance of data for anti-racism policies have been unfolding both domestically (e.g. Parliament of Victoria 2021; see Recommendations 34–35) and internationally (e.g. European Commission 2020, Immigration, Refugees and Citizenship Canada 2022).

Responding to the growing recognition of the importance of data for anti-racism policy and action in Australia, we conducted the most comprehensive review of quantitative racism research and data at the national level. Our overarching aim was to contribute to knowledge about racism in Australia, by examining the state and limitations of existing racism data. We focused on data collected via quantitative research and routine reporting initiatives until July 2022. Espousing an active re-orientation to racism research and data as 'data for anti-racism', we examine what racism data have been collected in Australia thus far, organise and classify the body of existing data, identify gaps in knowledge about racism, and recommend how to bridge these gaps. We provide directions for future research, and propose the current study as a foundation in developing a national anti-racism research agenda and data management plan (Ben *et al.* 2022a, 2022b), and as a template for stocktakes in other jurisdictions to contribute to coordinating anti-racism globally.

1.1. Racism in Australia

Racism is one of the most pressing social issues today. In Australia, racism remains historically and structurally entrenched, interpersonally pervasive, and has harmful consequences across various life spheres, spanning areas as broad as economic participation, justice and incarceration, and health and wellbeing (e.g. Elias and Paradies 2021, Elias *et al.* 2021, Lowitja Institute 2022, O'Donnell 2022). Historical research has documented the fraught race relations between British settlers and Indigenous peoples, and between white Australians and non-white migrants. Beginning with British settler colonial invasion in 1788, racism has derived from colonial extraction, dispossession, exploitation, expropriation, competition with and violence against Indigenous peoples, often involving massacres, and later extending into discrimination and exclusion of different immigrant populations (Reynolds 1996, MacIntyre 2004, Wolfe 2006). Under the White Australia policy, the country enacted racism as an institutionalised state policy restricting non-white immigration, facilitating an Anglo-European cultural privilege that to-date limits the inclusion of non-Anglo Australians across multiple sectors.

Racism endures in Australia, with recent data showing that 16 per cent of Australian adults reported personal experiences of discrimination based on skin colour, ethnicity or

religion (O'Donnell 2022), with an even higher proportion of respondents, 26–35 per cent from non-English speaking backgrounds, reporting such experiences (Markus 2021). Likewise, the public harbours more negative feelings and attitudes towards people from certain national and ethno-religious backgrounds (O'Donnell 2022: 67). In recent times, racist incidents of various forms have been sparked episodically towards specific minority groups. This has included, for instance, violence against South Asian students (e.g. Dunn *et al.* 2011); inflammatory rhetoric and inhumane policies towards asylum seekers (e.g. Sharples *et al.* 2023); Islamophobia and racist targeting of Muslim Australians (e.g. Dunn *et al.* 2021); mediatised racialisation and episodic criminalisation of African Australians (Majavu 2020, Weng and Mansouri 2021); and discrimination against Asian Australians and temporary migrants in the context of COVID-19 (Farbenblum and Berg 2020, Kamp *et al.* 2022). Meanwhile, colonisation and systemic racism towards Indigenous peoples continue to unfold, bearing devastating effects in all areas of life, including intergenerational traumas, non-recognition of Indigenous rights, health inequalities, poverty, poor education, overincarceration and deaths in custody (Lowitja Institute 2022, Thurber *et al.* 2022).

We define racism as a historical and ongoing system of oppression, which creates hierarchies between social groups based on perceived differences relating to ethnic origin and cultural background (Bonilla-Silva 1997, Williams 1997, Elias *et al.* 2021). These hierarchies disadvantage some groups and advantage others, generating and exacerbating unfair and avoidable inequalities (Berman and Paradies 2010). Racism is multi-faceted and manifests in structural, institutional, interpersonal and internalised forms. It is expressed and reinforced through policies, practices, media representations, stereotypes, prejudice and discrimination. Racism draws on characteristics such as 'race', ethnicity, nationality and religion and is related to phenomena such as Islamophobia, anti-semitism and xenophobia (Grosfoguel *et al.* 2015).

In Australia, racism occurs in an increasingly culturally diverse population, with immigrants from all over the globe. According to the 2021 census, 27.6 per cent were born overseas and 48.2 per cent had at least one parent who was born overseas, while 22.8 per cent speak a language other than English at home – all higher rates compared to earlier censuses (ABS 2022). Still, racial hierarchies persist, where whiteness remains dominant and white privilege under-interrogated (Sharples and Blair 2021). Many Australians tend to deny, dismiss or minimise racism, avoid discussing the ongoing significance of 'race', conflate mentions of 'race' with perpetrating racism, or redefine it as 'not racism' (Ben 2023, Dunn and Nelson 2011, Lentin 2018). Moreover, ethnicity data are not adequately collected. Such data would be an important asset in measuring structural racism and interrogating racial/ethnic disparities, particularly as affecting people from migrant backgrounds. An expansion to ethnicity data has long been called for by multicultural organisations and is currently being discussed (SBS 2023).

1.2. Anti-racism Research

Nationally and internationally, racism has been responded to with anti-racism strategies (Elias *et al.* 2023). Anti-racism consists of thoughts and practices that seek to confront or eradicate racism and to enable the equality of racial/ethnic groups (Bonnett 2000: 4, 2006: 1099, Olson 2019), with various approaches that may be effective (Ben *et al.* 2020).

Growing awareness about racial injustice in Australia has propelled policymakers to commit to anti-racism, although responses are often sporadic. Racism and its ill effects have been partially acknowledged in Australian law and policymaking, from Australia's Racial Discrimination Act (RDA) 1975 to various initiatives by the AHRC. Racism is also addressed at other levels, for example via state-based strategies, parliamentary inquiries, and local and community initiatives, with key recent examples including Black Lives Matter (BLM) protests in response to racial injustice and Aboriginal deaths in custody, and responses to anti-Asian racism under COVID-19.

While resistance to racism in Australia goes back to British colonisation (Nelson and Dunn 2013), anti-racism research has been growing since the 2000s (Elias *et al.* 2021). Research and data can contribute to anti-racism in several ways: data on the prevalence, nature and impact of racism can be the basis for anti-racism action and guide initiatives; raise awareness about racism and increase its visibility for advocacy; influence policy and service delivery; and serve as a means of articulating experiences with racism for those who are affected (AHRC 2022: 86).

These contributions to anti-racism are demonstrated by existing research. The annual Mapping Social Cohesion Survey (MSC; 2007-present), for example, is frequently used by mainstream media, and informs policymaking and research on social cohesion, immigration and racism. Likewise, research by the Challenging Racism Project (CRP) has informed novel education and training programs, generated videos and a documentary to reduce viewers' anti-Muslim sentiment, and developed a world-first game/education mobile phone app to challenge understandings of racism.[2] National surveys assessing progress against Closing the Gap targets, consistently measure racism experienced by Indigenous people, while the new National Aboriginal and Torres Strait Islander Health Plan (2021–2031), which aligns with the Agreement on Closing the Gap, has a renewed focus on measuring and responding to experiences of racism in the health sector (Australian Government Department of Health and Aged Care 2021). Human rights commissions and community organisations further track phenomena such as discrimination, antisemitism and Islamophobia over time, raise public awareness, and propel action. Research also evaluates specific anti-racism initiatives and their effectiveness (e.g. Ferdinand *et al.* 2015, Priest *et al.* 2019).

1.3. Data for Anti-racism

To enhance the utility of racism research, we propose an active re-orientation to racism data, envisioning them as data *for* anti-racism. This approach explicitly centres anti-racism – combating racism and supporting racial/ethnic equality – as the end goal of racism data collection. It calls on researchers to explicate how the data they collect help tackle racism, directly and demonstrably, across all its levels. This may be done, for example, by impacting legislation; adapting institutional and cultural norms and practices; tackling hidden biases and subtle forms of discrimination; and reducing individual and collective prejudice. This approach would ensure that racism data are more accessible and linked, better utilised, and positions data as a vehicle for social justice and racial equity (Krieger 2021).

Using data for anti-racism must also involve shifts in how we think about data, and the principles and ethics that direct how data are conceived, stored, owned and shared. This includes recognition of the troubled colonial legacies of research in Australia, where data

have been a means to control and oppress Indigenous peoples (e.g. Pool 2016, Rigney 2001, Yoorrook Justice Commission 2022: 55–56). While data constitute a cultural, economic and strategic asset, Indigenous peoples are often isolated from producing and controlling data relating to them, resulting in existing data and infrastructures that do not recognise their knowledges or meet their needs, and which are overly focused on Indigenous peoples as a problem and deficient (Maiam nayri Wingara Indigenous Data Sovereignty Collective and the Australian Indigenous Governance Institute 2018, Walter and Andersen 2013).

To address these issues, Indigenous governance, sovereignty and autonomy over the data relating to Aboriginal and Torres Strait Islander peoples and communities should be integral to any effort to understand and challenge racism nationally (AHRC 2022: 8990, AIATSIS 2020: 25–30). Data for anti-racism should start with centring Indigenous experiences, perspectives and knowledges. Such data should originate collaboratively, address real needs and have tangible effects, and be vehicles for self-expression and self-determination, while colonialism in data practices should be called out. Borrowing from Indigenous data sovereignty principles, data should also be available to and usable by migrants, refugees, and other racial, ethnic and religious minoritised groups (AHRC 2022). Several of the data sources we discuss next are driven and led by community needs, drawing on strong collaborative efforts that may be followed.

1.4. Study Aims

This study seeks to contribute to knowledge about racism in Australia, by examining the state and limitations of existing racism data, and to orient researchers, organisations and policymakers on how to use data for anti-racism.

The study had three specific aims:

1) To organise existing quantitative racism research and data into an accessible meta-narrative, provide a classification of what data have been collected, who has collected them and how, and where the focus has been in studying the settings, targets, perpetrators, responses to and effects of racism;
2) To identify knowledge gaps about racism by pointing to areas of quantitative research and data collection that are currently under-developed; and
3) To provide recommendations on how these data gaps can be bridged, with directions for needed research.

2. Methods

This paper is based on a stocktake review of: (1) national-level, quantitative research on racism in Australia, including cross-sectional and longitudinal data; and (2) routine data collection and reporting initiatives by government and non-government organisations.

2.1. Quantitative Research

We conducted a systematic review (e.g. Paradies *et al.* 2015) of racism data collected through empirical research. Because of our national scope, and to inform policy and

practice nationally, we focused on large-scale, survey-based research that cover the Australian population and significant sub-groups nationally, and that measure areas such as the prevalence, nature and impact of racism, which are pertinent to informing anti-racism.

Research had to consist of: (1) empirical, survey-based data, including self-reported quantitative data; (2) one or more measures of racism; and (3) Australian data. Given our national scope, many of the included data sources are nationally-representative. We also included large scale research ($n \geq 500$) that focused on the national level and included respondents from all Australian states and territories.

To identify survey-based, quantitative research, we first searched for published, peer-reviewed papers. We included measures of self-reported racism that were consistent with our definition of racism in the Introduction. Research was excluded, for example, where discrimination was broadly defined or where racism measures were mixed with measures that were irrelevant to our scope, such as discrimination based on gender or sexuality. Experimental, ecological and other researcher-reported measures were excluded. We included journal articles, books and book chapters, and major reports, and excluded theses, conference papers and presentations. We included only materials published in English.

We searched the online databases Scopus and PubMed until July 2022 (earliest date limit unspecified), which yielded a total of 6,361 unique results. Online search results were imported into Endnote X9, and each result was screened by two independent reviewers to determine eligibility for inclusion. Disagreements between the reviewers were resolved by a third reviewer or through consensus. The full-text of each reference was reviewed by two reviewers, with disagreements again resolved by a third reviewer or through consensus. This database search was complemented by a desktop scan of project documents, and we drew on our collective knowledge of this field to identify further sources. The final sample for this review consists of 32 research studies, discussed in 50 published articles, three book chapters and one book, 29 published reports, 29 survey forms, five data dictionaries and technical manuals, and one report summary. Data were extracted and coded by one reviewer using an Excel spreadsheet, in discussion with a second reviewer.

2.2. Routine Data Collection Initiatives

We conducted a desktop scan to identify routine, ongoing quantitative data collection by government and non-government organisations. We consulted key organisations and academics working on anti-racism, and contacted organisations that were identified as possibly collecting such data. While focusing on racism data, we also kept a record of discrimination data more broadly, where racism/racial discrimination were significant components. Altogether, we identified six national initiatives.

3. Descriptive Analysis: Organising Existing Racism Data

3.1. Quantitative Research

We organised the 32 research studies based on key study and participant characteristics, forms and settings of racism, and associations between racism and health

(see Supplementary Material, Tables 1–8, and study name acronyms in Table 9). For a list of publications included in the review, see Appendix 1. We also reviewed the responses to racism and study participants' demographics (not in tables). These studies have defined and measured racism in various ways, from discrimination based on skin colour, 'race', ethnicity, nationality and religion, through prejudiced attitudes, to racism as existing more structurally towards a group or in Australia.

Early scholarly research measuring racism in Australia included surveys from the 1980s and 1990s that focused on immigration and anti-immigrant attitudes (e.g. the Australian Values Study (AVS), the Longitudinal Study of Immigrants in Australia (LSIA)). The 2000s saw new surveys that focused more explicitly on the experience of racism, of the Australian population, Indigenous peoples, and children. Major surveys of the population include, for example, the Geographies of Racism National Survey (2001–2008), the Scanlon Foundation's Mapping Social Cohesion (MSC) survey (2007 – present), the Household, Income and Labour Dynamics in Australia (HILDA) longitudinal survey (2001 – present). Three nationally representative, multidimensional surveys were established in 2002–2004: the General Social Survey (GSS), the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS), and National Aboriginal and Torres Strait Islander Social Survey (NATSISS). Around this time, two longitudinal datasets focused on children: Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC), and Footprints in Time: The Longitudinal Study of Indigenous Children (LSIC).

Since the 2010s, several large-scale national surveys have focused on the general population. The 2015–2016 Face Up to Racism measured the extent and variation of racist attitudes and experiences of racism in Australia. Several waves of the Australian Survey of Social Attitudes (AuSSA) measured negative attitudes towards minoritised and migrant groups. Specific groups and settings have been the focus of other surveys. The Cyber Racism and Community Resilience (CRaCR) study (2013), focused on experiences of racism online, providing an in-depth look into the authorship, platforms, responses to and effects of online racist content. The longitudinal Building a New Life in Australia (BNLA) study (2013 – present) measured experiences of discrimination among humanitarian migrants and responses to racism. Other research projects measured Islamophobia by the general population (e.g. Ewart et al. 2021, Gravelle 2021), and the Australian Jewish Community Survey measured personal experiences of antisemitism and the extent to which antisemitism was seen as a problem. Mayi Kuwayu (MK) (2018 onwards) has focused on racism experienced by Indigenous Australians across forms and settings, paying special attention to healthcare. Most recently, several national surveys have examined the experiences of Asian Australians and temporary migrants with various forms of discrimination under COVID-19 (Berg and Farbenblum 2020, Kamp et al. 2022, Tan et al. 2021).

3.1.1. Study Design and Participant Characteristics

Table 1 in Supplementary material presents summary statistics of key study design and participant characteristics, and Table 2 presents study characteristics for each study. We found that racism data collection has increased over time; while only five research studies began national data collection before 2000, nine began in the 2000s, 15 in the 2010s, and three in the 2020s thus far. Most studies ($k = 25$) used representative sampling methods.

Twenty-six studies were cross-sectional, of which eight were 'repeated cross-sectional', collecting data from different participants over time, and six were longitudinal. Twelve studies remained ongoing during the review. Altogether, nearly 300,000 participants have taken part in these studies. Study sample sizes ranged from 524 to 36,799 participants per study, with 16 studies each collecting data from over 5,000 participants. Most studies were with participants aged 18 and over ($k = 16$), or 15 and over ($k = 7$). Sixteen studies surveyed the general Australian population, while several studies focused their sampling and/or at least some analysis on immigrants ($k = 7$) and Indigenous peoples ($k = 5$).

3.1.2. Experiences of Racism
Tables 3a, 3b and 4 in Supplementary material present the types, forms and settings of racism experienced. Direct, interpersonal forms of racism were widely studied across our sample ($k = 23$). Fewer studies collected data on racism as generally or structurally existing towards a group or in Australia ($k = 14$), and vicarious experiences, such as knowing about or observing racism towards another person, were the least studied ($k = 8$). The most commonly studied experience of racism was broadly defined without specific details regarding its form ($k = 22$), for example, as 'discrimination due to one's ethnic background, skin colour or religion'. Data on more specific forms of racism experienced were verbal (e.g. insults, slurs, or jokes) ($k = 13$), physical (e.g. attacks, being spat on) ($k = 10$), and as exclusion (e.g. being left out or avoided) ($k = 10$). The most widely studied settings of racism experiences were employment ($k = 19$), education ($k = 13$), public spaces ($k = 12$), and law enforcement ($k = 12$).

3.1.3. Racist Expressions
Eighteen studies recorded interpersonal expressions of racism by participants, for example, racist attitudes, discriminatory behaviours, and prejudicial beliefs (see Supplementary material, Table 5). Relatively widely studied were perceptions that immigrants increase social problems such as crime, or are threatening ($k = 9$), and concerns about marriage to an out-group member ($k = 8$). Several studies that measured expressions of racism tested how these varied between people based on their education backgrounds ($k = 11$), age ($k = 9$), sex ($k = 8$), and ethnic, racial and/or religious backgrounds ($k = 8$).

3.1.4. Targets and Perpetrators
Nearly all studies provided some information about the ethnic, racial, national, or religious background of groups targeted by racism (see Supplementary material, Table 6). The groups most frequently studied as targeted by racism were people of Asian backgrounds ($k = 12$), Indigenous peoples ($k = 11$), and people from Anglo/European ($k = 11$), Muslim ($k = 10$), Middle Eastern ($k = 8$), African ($k = 7$) and Jewish ($k = 7$) backgrounds. The backgrounds of perpetrators of racism were rarely examined across the studies. Where analyses of perpetrator backgrounds were conducted, for example in CRaCR, Face Up to Racism and Geographies of Racism, they usually compared how racist antipathies varied across different racial/ethnic/national groups. Limited analysis of perpetrator backgrounds remains an important gap to understanding racism.

3.1.5. Effects and Responses

Nine studies reported associations between experiences of racism and health outcomes (see Supplementary material, Table 7). Associations between racism and mental health ($k = 7$), and physical health ($k = 6$) were common foci. Associations between racism and education were reported in four studies. We identified nine studies that measured self-reported behavioural and/or cognitive responses to racism (not in tables): BNLA, CRaCR, Geographies of Racism Survey, Jewish Community Survey, LSIC, MSC, NATSIHS, NATSISS and a study by Kamp and colleagues. Some studies, such as CRaCR and NATSIHS, assessed various behaviours (such as 'shrug it off', 'make a complaint' or 'walk away'), whereas others like NATSISS, focused specifically on certain responses like avoidance. Five studies included measures of self-reported health responses (e.g. feeling angry, upset, stressed).

3.2. Routine Data Collection Initiatives

We identified six organisations which routinely collected national data on racism and related phenomena such as race- and religion-based discrimination, vilification, prejudice or abuse, hatred, victimisation, Islamophobia and antisemitism (see Supplementary material, Table 8). Data collection was through various initiatives, platforms and projects, and mainly used online forms. Initiatives focused on reports of personal experiences and witnessing an incident. The AHRC collects data on complaints through an online portal or in writing, and is charged with investigating, conciliating and reporting on such complaints. Data are divided into discrimination and racial hatred complaints, and broken down by grounds (e.g. ethnicity, race, immigrant status), areas and sub-areas (e.g. housing, media, internet or sport) (AHRC 2020). The eSafety Commissioner provides an online mechanism for reporting online abuse, in particular cyberbullying, image-based abuse, and illegal and harmful content. Data and action against workplace discrimination are collected by the Fair Work Commission (FWC) and Fair Work Ombudsman (FWO). The FWC is Australia's national workplace relations tribunal, which collects and records data specifically on racial discrimination in relation to dismissals and termination dispute. One ground for discrimination is 'discrimination involving race/colour/ethnicity', where multiple options may be selected. The FWO investigates allegations of unlawful workplace discrimination and may initiate litigation against national system employers. It provides protection in the case of disputes relating to discrimination due to 'race', 'colour', 'religion' and 'national extraction' (among other attributes).

Other reporting initiatives are community- and group-based. The Islamophobia Register is an online reporting tool of incidents of Islamophobia or anti-Muslim sentiment, that are personally experienced or witnessed (e.g. Iner 2022). It captures data on the setting and nature of incidents, perpetrator and victim details, and actions taken in response, including reporting. Jewish community groups have also been collecting data on antisemitic incidents, operationalised as racial discrimination against Australians of Jewish background, with a focus on crime. Incidents are reported annually, with breakdowns per state and categories, and a tally according to categories such as 'abuse, harassment, intimidation', 'graffiti', and 'email/online threat' (ECAJ 2021: 23). Other initiatives worth noting had recently concluded, including a project to monitor racism in media reporting (e.g. All Together Now 2020), and

data collection under COVID-19, in response to racism against Asian Australians (Chiu 2020), and to unfair treatment by police while public health orders were in place (Ulbrick 2021).

4. Filling Racism Data Gaps: Directions for Needed Research

We now extend the analytical part of the review by identifying gaps to racism data. Subsequently, we discuss directions for research needed to address these gaps, including further analysis and data collection.

4.1. Further Analysis of Existing Data

Some important, existing data remain under-utilised. Further analysing them can address outstanding questions about racism for modest costs, without duplicating existing research efforts. We focus on outstanding questions related to perpetrator demographics, localities and geographies of racism, and links between racism and health and socio-economic outcomes.

1 Perpetrator demographics

Further analysis of existing data can greatly improve our understanding of the demographics of perpetrators of racism. Research that measures attitudes, behaviours and other expressions of racism also collects data about respondents' demographics and could examine their correlations, but rarely examines how expressions vary demographically. For example, only eight of the research studies in our review examined how racist expressions vary across perpetrators' racial, ethnic, national and religious backgrounds, and of these, two were conducted over 20 years ago (DIMA 1998, McAllister and Moore 1991), and another focused on very few perpetrators (Jakubowicz et al. 2017). The remaining five studies show mixed findings. One study found that support for discriminatory migration policy was higher among non-Indigenous people, people born in Australia, and people who do not speak a language other than English, compared with Indigenous peoples, people born overseas, and people who only speak English (Blair et al. 2017, Kamp et al. 2017). Dunn et al. (2010) found no difference between Indigenous and non-Indigenous Australians in attitudes to racism based on ideas of biological difference, that is 'old racism' (e.g. 'all "races" of people are (not) equal'), and racism based on hierarchies predicated on cultural distinctiveness and conformity (rather than biology), that is 'new racism' (e.g. 'there are cultural/ethnic groups that do not fit into Australian society'). Elsewhere, Australian-born and non-English speaking migrants had higher prejudice towards Indigenous people than English-speaking migrants (Chui et al. 2020), whereas Markus (2020) found no significant differences between religious and migrant groups in whether migrants should be rejected based on their race/ethnicity or religion.

Findings are more consistent for sex, age, education and financial situation, yet are based on too few studies and need corroborating. For instance, there is some evidence that males and older people may be more likely to hold racist views. Older people expressed more Islamophobia (Gravelle 2021), and people over 75 showed greater rejection of migrants based on ethnicity and religion (Markus 2020). Similar trends were consistently

found in comparing various age groups in Blair *et al.* (2017). In the same studies, males expressed more negative attitudes than females (Blair *et al.* 2017, Markus 2020). Still, Tan *et al.* (2021) found that females were more likely to share anti-Asian bias, while other studies found no significant differences by gender (e.g. Mansouri and Vergani 2018).

Racism may also be associated with lower education and income. Lower education was associated with support for discriminatory migration policy (Blair *et al.* 2017, Markus 2020), and with Islamophobia (Gravelle 2021), while possessing knowledge about Islam meant less prejudice against Muslims (Mansouri and Vergani 2018) and tertiary qualifications were linked to more comfort with immigrants' presence in Australian society (Guan and Pietsch 2022). Higher family income was associated with positive attitudes towards immigrants (Guan and Pietsch 2022), and a better financial situation was linked with less rejection of migrants based on ethnicity and religion (Markus 2020).

Racist attitudes are not monolithic, and it is important to understand the nature and depth of how intolerance is segmented, as well as its variations. This should be accompanied by a critical and expansive understanding of what constitutes racism, and how racism is perpetrated both explicitly and implicitly, particularly in institutional settings. Qualitative research would be particularly well placed to further nuance not just experiences of racism, but also racist attitudes, and why particular demographic groups are more likely to adhere to certain beliefs, including in 'old' and 'new' forms of racism.

II. Priority localities and geographies of racism

Further analysis could leverage existing racism data to illuminate priority localities for anti-racism. Existing research often collects participants' postcodes and other geographic data, but these are under-analysed. Analyses of local area data could illuminate the forms, prevalence, distribution and impact of racism across localities and regions with their varied infrastructures and support services. It could help direct more appropriate, locality-specific, and targeted anti-racism initiatives (Nelson and Dunn 2017). Such analysis is more common in research focusing on specific localities (e.g. municipalities), but this work lacks a comparative aspect.

Some state-based comparisons are available, for example, by the MSC (Markus 2020: 77, Markus 2021: 66), and state-wide research exists for Victoria and NSW (e.g. Dunn *et al.* 2021, Priest *et al.* 2020). However, important variations in racism exist on other geographic scales (e.g. locally, regionally), which are rarely considered in-depth. The CRP collected and made available regionally-specific data on racism, although it is now dated. It identified spatial variations of intolerance in Sydney (Forrest and Dunn 2006) and variations to experiences of discrimination among ethnic groups in different LGAs in Melbourne (Forrest *et al.* 2016). CRP research in New South Wales and Queensland found that racist attitudes transcended urban-rural distinctions and were not uniformly correlated with levels of cultural diversity, and that racist and non-racist attitudes were 'everywhere different' – consisting of a continuum of attitudes that cut across social and aspatial characteristics (Forrest and Dunn 2006). Local anti-racism will be more likely to be regionally sensitive, effective and gain buy-in if the programs respond to the local manifestations of racism, as revealed through data.

Case study analysis of specific regions and municipalities may inform approaches to anti-racism too, where local governments develop their own strategies. In Victoria,

various local government initiatives have measured and tackled racism, in councils such as Whittlesea and Darebin, and cities such as Wyndham and Yarra (e.g. Peucker *et al.* 2021; 2022). Other research examined racism across multiple LGAs (e.g. Ferdinand *et al.* 2015). Critically, such research tends to consistently focus on LGAs with longstanding commitments to anti-racism, while research on other localities remains under-developed.

Finally, we draw a cautionary note about the sensitivities of identifying priority groups and localities for anti-racism, and the need for nuanced approaches that avoid stigmatisation. We should also be wary of defining racism too narrowly – that is, focusing only or overwhelmingly on blatant, interpersonal forms – and instead provide detail about the different ways racism is expressed, by whom and where. CRP has measured both old and new forms of racism, including denial and anti-diversity attitudes. More analysis is however needed to nuance the geographic distribution of these forms.

III. Racism as a determinant of health and socio-economic outcomes

Racism impacts key spheres of life such as health, education and economic outcomes. High quality data that have already been collected should be further analysed to understand these effects, and to revisit inconclusive findings. For example, associations between racism and mental health ($k = 7$ studies) are fairly consistent and significant, but the data remain underutilised in publications. More analysis needs to focus on the BNLA and LSAC which have data on experiences of racism among migrants and children. Among Indigenous children, racism was linked with risk of negative mental health (Cave *et al.* 2019), higher levels of stress and lower sense of control (Macedo *et al.* 2019), while among Indigenous peoples 16 or older, it was associated with distress, depression, anxiety, and low happiness and life satisfaction (Thurber *et al.* 2021). Among Asian Australians, people who experienced racism during COVID-19 reported higher levels of stress, anxiety and depression than those who did not experience racism (Kamp *et al.* 2021), whereas discrimination based on religion, ethnicity or skin colour was a risk factor for humanitarian migrants with instable forms of distress (O'Donnell *et al.* 2022).

The relationships between experiencing racism and socio-economic factors also need further examination. These relationships may be complex and multi-directional, as racism may impact these areas, while perceptions of racism may be shaped by socio-economic circumstances as well (Wodtke 2018). The relationship between racism and education was analysed in only four studies, and just three studies reported on racism and economic factors. Analysis of racism and economic factors shows a mixed picture; racism is associated with financial struggle in some studies (Markus 2020, Temple *et al.* 2020), but not in another (Cave *et al.* 2019). Finally, analyses that indicate of adverse impacts of racism on various physical health outcomes ($k = 6$) should be further corroborated, while further analysis of the relationship between racism and substance abuse ($k = 2$) and employment ($k = 1$) is needed.

4.2. Collection of New Data

Where critical questions about racism cannot be addressed by existing data, additional data should be collected. This should be done in discussion with groups affected by

racism, to avoid over-researching and 'research fatigue' among participants (e.g. Patel *et al.* 2020). For efficiency, priority should be given to expanding existing surveys, especially longitudinally. The next sections include questions for future research.

1 Emerging settings

Racism research in Australia has an appropriate emphasis on the labour market, education settings, law enforcement and public spaces – where substantial disadvantage is reproduced, along with pervasive racism (e.g. Blair *et al.* 2017, Temple *et al.* 2019). However, other sites of 'everyday racism' (Essed 1991), have seen limited focus.

4.2.1. Domestic Spaces and Neighbourhoods

The housing sector is a hotspot for racial discrimination (e.g. MacDonald *et al.* 2016, Nelson *et al.* 2015), but there is limited regulatory oversight, and we were unable to find routine racism data collection by major housing organisations. Only a few studies examined racism at home, at a relative's/friend's home, and by neighbours/in the neighbourhood. In addressing these areas, one direction to consider is how the prevalence, frequency and adverse consequences of racism in domestic settings may change over time, including during times of crisis such as the COVID-19 pandemic.

4.2.2. Online and Media Environments

Online and media environments are key sites where racism is produced and circulated, yet data collection about them remains limited. Of the ten research studies measuring racism online, only Jakubowicz *et al.* (2017) focused on it, with data collection done in 2013, while Kamp *et al.* (2022), dedicated parts of their analysis to online settings. Other studies overwhelmingly used a single, generalised item about racism online. Racism remains under-studied with regard to some online activities, such as dating (Carlson 2020), sharing economy (see below), and gaming. A related limitation concerns the lack of routine data collection by media organisations and those who monitor the internet, and lack of adequate regulation and external oversight of incidents and complaints.

There is evidence that traditional media outlets such as newspapers, television and radio consistently represent some groups negatively (All Together Now 2020), and that cultural diversity in the media is limited (Groutsis *et al.* 2022). There is however little research on the experiences and impacts of media racism, with rare exceptions such as surveys about the extent to which Jewish participants view antisemitic reporting in the media as a problem (Graham and Markus 2018), and the views of Indigenous children about how Indigenous people are represented. Likewise, data on racism in political discourse should be expanded, and may include both general measures to assess vilification and victimisation, as well as particular issues, such as targeting specific groups.

An increasingly important area where racism is surprisingly under-researched are digital technologies, from everyday apps and facial recognition software to complex algorithms that have been shown to perpetuate racial bias and amplify discrimination (O'Neil 2016 Benjamin 2019, Achiume 2020). Emerging technologies such as artificial intelligence and machine learning can reinforce discrimination in education, policing, health and employment, but have not been examined in Australia. This review was undertaken ahead of the most recent disruptions hailed by ChatGPT and the associated text based generative AI.

These developments pose integrity issues for academic work, but they also offer dramatic capacity for efficient review work. The latter would extend to efficient reviews of data on racism held within published research and grey literature. The key will be to ensure transparency around search criteria, limitations and components of originality.

Greater scrutiny and vigilance of these forms of systemic racism are needed. Research should better understand the types, platforms and locations (for example, in-app or in associated chat forums) where racism operates online, how and what steps respective platforms may take to curb it, and how racial bias is coded in artificial intelligence technologies such as machine learning and predictive analytics.

4.2.3. Financial Settings and the Sharing Economy

Our understanding of racism in financial settings and institutions in Australia is extremely limited. The five studies that have measured racism in financial settings are not dedicated to this topic and, again, typically use a single survey item on related experiences (i.e. receiving financial assistance or services, for example from banks).

One key area where research is missing is the sharing economy. These are growing industry platforms with substantial levels of intergroup contact that can potentially create, heighten or counter racism (Edelman *et al.* 2017, Piracha *et al.* 2019). Researching these settings is also important given the concentration of particular ethnic and migrant groups in some industries and their vulnerability to exploitation and harassment. Questions to explore include how racism in financial settings affects outcomes like mortgages and loans and contributes to residential segregation, and the possibility of racial stratification in financial sanctions (see Ge *et al.* 2016, Edelman *et al.* 2017, Henricks 2021; for studies outside Australia that may be replicated).

4.2.4. Healthcare and Sport

Finally, settings that relate to healthcare and sports, see limited routine data collection and require greater research attention. Healthcare-related racism is significant due to the existence of racial/ethnic disparities in health outcomes and in access to health services. Experiences of racism globally are associated with lower levels of healthcare-related trust, satisfaction and communication (Ben *et al.* 2017), and may help maintain culturally unsafe healthcare environments (Malatzky *et al.* 2020). Experiences of racism and discrimination among healthcare practitioners have been reported in Australia as well (Huria *et al.* 2014, Rallah-Baker 2018). Racism in healthcare settings has only been measured in nine of the studies we identified, and there are important gaps in data for people with disability who are Indigenous or from CALD backgrounds (AIHW 2020: 338, 342).

The under-exploration of racism in sport may seem unexpected, given the media attention it receives and the many anti-racism initiatives currently focused on sports (e.g. Farquharson *et al.* 2019, The Guardian 2021, STARS 2022). Measures of racism in sport are rudimentary and only three remain ongoing, which are all focused on Indigenous peoples (LSIC, NATSIHS, NATSISS).

II. Under-explored forms of racism

Racism research often centres on direct, interpersonal racism, and less on vicarious experiences or on structural racism. Despite the prevalence and adverse effects of

vicarious experiences of racism, it is the least studied type, covered in just eight studies (with three that are ongoing). For example, although witnessing racism online is very common – as reported by 35 per cent of participants in Jakubowicz *et al.* (2017), 55 per cent in Markus (2020), and 87−97 per cent of Jewish adults (regarding antisemitic content online) in Markus *et al.* (2020) – it is rarely the focus of research and interventions.

Fourteen studies included self-reported measures of structural racism as existing generally or towards a group. These studies find wide agreement that 'there is racial prejudice in Australia', as reported, for example, by 86 per cent and 79 per cent of participants in CRP's national surveys (Habtegiorgis *et al.* 2014, Sharples and Blair 2021). There are also researcher-reported measures of racism, including segregation, disparities, access and equity. We did not include these in the review, but to our knowledge they are few, and several are dated (e.g. Dunn 1993, Burnley 1994, Forrest *et al.* 2006, Booth *et al.* 2012, Hugo 2014). A dedicated review of research on structural racism could inform a more structural understanding of and approach to racism and anti-racism in Australia (Ben *et al.* 2022c, Groos *et al.* 2018, Rucker and Richeson 2021). Structural racism should be measured both through examination of race/ethnicity related disparities as well as self-reports of structural unevenness from racism.

Other specific manifestations of racism that have been under-studied include subjection to unfair assumptions; patronisation and positive stereotypes (e.g. compliments); hyper-vigilance, over-policing and securitisation; being feared; harassment, bullying, victimisation and micro-aggressions; and 'cultural racism'. Racist harassment has received surprisingly little attention despite being the subject of ongoing debates, including in legislation. More attention should also be given to intersections between experiences of racism and other forms of discrimination (e.g. based on gender), in underpinning sexual harassment against black and Asian women, or over-policing black and Middle Eastern men.

III. Cohorts experiencing racism

4.2.5. Young People Under 18

Racism has considerable consequences for health among children and young people, and children have heightened vulnerability to racism compared with adults (Cave *et al.* 2019, Priest *et al.* 2021). Still only two of the studies focused on racism towards people under 18, LSAC and LSIC. Important gaps that research should fill include exploring how racism (exposure and impacts) fluctuates during the life span; its long-term effects into adolescence and adulthood, and intergenerationally; how intersections between racial/ethnic background, and class, gender, or age affect experiences and effects of racism; and the impact of vicarious racism, as experienced by family, friends and strangers, on child health.

4.2.6. Migrants

Quantitative research on racism towards migrants is surprisingly limited. Many Australians harbour negative attitudes towards refugees, and migrants' experiences of discrimination are common although they vary between national and religious groups (Markus 2016, Ziersch *et al.* 2020). The BNLA study remains the only currently ongoing

longitudinal study of migrants, but focuses only on humanitarian migrants. Two additional studies that have dedicated analyses to the experiences of humanitarian migrants are Australians Today and Face up to Racism.

To bridge this gap, other longitudinal datasets (e.g. HILDA) could be extended by recruiting a migrant top up sample. Research with migrants typically centres on racism experienced during the first years in Australia; but how do they experience and respond to racism post-resettlement? How may pre-migration experiences and views of racism shape new ones? What new forms of racism may migrants encounter in Australia, and how might they impact migrants' settlement, belonging, health and wellbeing?

IV. Responses to racism

Only nine of the research studies we reviewed measured responses to racism, typically looking at behavioural responses (e.g. avoidance) or health-related responses (e.g. stress, worry, anger). This under-engagement with what people actually do upon facing racism reinforces views of people who are targeted as passive victims, and limits our understanding of how racism is negotiated, and how effective responses may be. One area that remains poorly understood concerns the extent that people qualify certain actions (or non-actions, such as exclusions) as racist, and understanding discursive responses like denying, downplaying and minimising racism among different population groups (Ben 2023, Dunn and Nelson 2011). To what extent are people from different (e.g. racial, ethnic, migrant) groups likely to (un-) recognise racism as affecting them? Answering these questions will have important implications for understanding patterns of reporting racism (Peucker *et al.* 2021) and for undertaking anti-racism initiatives. Research should also examine longer-term responses and how past experiences may affect behaviour patterns and adoption of new strategies.

V. Longitudinal and routine data

A final area of data collection that should be improved concerns tracking and responding to racism over time. First, we found only six studies that collect racism data longitudinally. The scarcity of longitudinal data limits our understanding of changes to the prevalence and impact of racism over time. There are also significant gaps in our understanding of racism over the lifespan, as well as its long-term impact on various outcomes. Second, the six organisational routine data collection initiatives we discuss leave much to be desired in terms of our ability to consistently capture racist incidents and rapidly respond to racism. Existing initiatives are limited by their data collection methodologies and coordination, and face challenges related to resourcing and sustainability. Moreover, racism in some settings (e.g. healthcare, housing, sports) remain to be consistently considered in reporting practices. Meanwhile the routine tracking of racism towards certain groups, first and foremost Indigenous peoples, is non-existent. These limitations have been discussed more extensively both in Victoria (Parliament of Victoria 2021) and nationally (Vergani and Link 2020, AHRC 2022). We thus reiterate here calls for a longer-term commitment to data

collection on racism through initiatives that are robustly designed, coordinated, adequately resourced, and use panels and cohorts.

5. Discussion

5.1. Summary

Data play an important role in combatting racism, from raising public awareness and supporting advocacy, to informing policy and action. Despite renewed commitment to addressing racism in Australia and a growing awareness of the significance of data in doing so, racism data remain seriously limited. This study is the first to comprehensively review and organise the body of quantitative racism data in Australia at the national level, with a focus on identifying and filling racism data gaps. We organised existing data and classified studies based on their designs and participant characteristics, and the settings, targets, perpetrators, responses to and effects of racism.

We called for further analysis of existing data to improve the limited understanding of perpetrators' demographics, identify priority geographies and localities for anti-racism, and examine racism's health and socio-economic outcomes. These analyses can address outstanding questions, for modest costs and without duplicating existing research efforts. They bear immediate implications for policy and the generation of better interventions. Where data are insufficient we called for the collection of data on emerging settings where racism occurs (domestically, online and media, financial and sharing economy, healthcare and sport), under-explored forms (vicarious and structural), cohorts experiencing racism (migrants and young people), and responses to racism.

5.2. Towards a Data Management Plan

The current review serves as a foundation in developing a national anti-racism research agenda and data management plan. By taking stock of existing research and data and their limitations, our study provides a baseline to direct future research. It may be consulted in developing further reviews, and in making decisions about resource allocation. The current review complements our recent call to mandate key agencies to collect, monitor, report and address data on racism and racial/ethnic disparities in Australia (Ben et al. 2022a, 2022b). A new independent body could routinely analyse and publicly report on key outcomes relating to areas such as health, employment and policing, and liaise with agencies and anti-racism advocates on how disparities may be addressed. Where disparities are detected, further analyses should examine their causes, including racism as a possible factor.

Since the collection and analysis of racism data are often scattered, have considerable gaps or overlaps, and tend to be poorly linked and under-utilised, we previously recommended a research agenda and data management plan for better coordination, long-term direction and resourcing of the racism research effort (Ben et al. 2022b). These would routinely identify gaps in research and priority areas in anti-racism policy and practice, and direct research accordingly.

Our findings extend recent calls for consistent data collection, analysis and reporting, to support anti-racism in Australia, including the creation of dedicated dataset/s

for anti-racism. The national anti-racism research agenda and data management plan should continuously discuss what data should be measured and how. A standard set of best available measures should track fundamental, longstanding dimensions of racism (e.g. its forms and settings, targets and perpetrators, and responses and effects) consistently and over time. Meanwhile, other measures should be periodically introduced based on reviews of the state of racism to keep reflecting and engaging with its novel manifestations.

5.3. Global Anti-racism

From a global perspective, the review serves as a template for stocktakes that seek to inform anti-racism research agendas. While there are numerous reviews and meta-analyses of the prevalence and effects of racism (e.g. Paradies *et al.* 2015, Talamaivao *et al.* 2020), there are few stocktake reviews of existing data and their limitations (for exceptions, see reviews conducted in Singapore and the United States (Chew 2018, Morey *et al.* 2022)).

In other national contexts, there is a growing reckoning with the need for coordinated anti-racism, and recognition of how research and data can help orienting such efforts. We see such interests converging internationally, and the moment may be particularly ripe for international collaboration. For example, Canada, like Australia, has a National Anti-Racism Strategy for 2021–2024 which entails a focus on research and data as one of its pillars, in aiming to build a strong evidence base for decision making to support anti-racism work. The Canadian Strategy includes identifying key data sources for data foundation projects and targeted reviews and research to support policy improvements (Immigration, Refugees and Citizenship Canada 2022: 7, 13, 32, 34). A move towards a more coordinated, evidence-based anti-racism is also apparent in international, inter-governmental organisations. In Europe, the European Commission's Anti-Racism Action Plan for 2020–2025 sees reliable and comparable national and pan-European data as 'an essential prerequisite for effective action'. It notes that currently only some member states collect data, the lack of common methodology, and the limited disaggregation of data by racial/ethnic origins. They suggest Member States should collect data that are 'comprehensive, reliable, regular and timely; mainstreamed into EU and national surveys; and both representative and comparable' (European Commission 2020: 15–16). Meanwhile, UNESCO's Roadmap Against Racism and Discrimination seeks to enhance knowledge and evidence to tackle racism as one of its four Strategic Pillars. This will include actions such as mapping anti-racism frameworks and successful strategies, establishing a new Global Knowledge Hub on anti-racism and anti-discrimination, and developing and mobilising knowledge to understand and respond to rising levels of hate speech (UNESCO 2022: 5–6). A related initiative by the United Nations Network on Racial Discrimination and Protection of Minorities has recently strengthened its evidence-based programming at the country and regional levels, setting among its goals for 2022–2025, to '[e]stablish an evidence base on racism and discriminations in collaboration with relevant stakeholders including academic and scientific communities' (United Nations Network on Racial Discrimination and Protection of Minorities 2022: 5). Australia needs a co-ordinated racism data and research plan to keep pace with these global trends and to be able to participate in global benchmarking and collaboration.

Our Australian stocktake could be replicated in these jurisdictions and across scales (e.g. state-wide, nationally, regionally and internationally) to inform policymakers and institutions about existing and needed data, and as a step towards mapping racism research and coordinating data for anti-racism. In turn, the findings of national and other stocktakes may collectively inform multi-scalar coalitions as well as evidence-based, global action. The latter is particularly timely considering ongoing transformations to racism as a global phenomenon – including online, in international migration, during (post-)pandemic times, and as otherwise universally manifest. These stocktakes could orient international anti-racism campaigns, and propel peer-learning and exchange of ideas among anti-racism researchers, policymakers, practitioners and community organisations. Using our study as a template would also enhance the ability to coordinate anti-racism research.

5.4. Indigenous Methodologies

Our review points to a lack of engagement by the scholarship reviewed with Indigenous methodologies (e.g. Tuhiwai Smith 1999, Walter and Andersen 2013). Indigenous methodologies conceive of and frame research through an Indigenous standpoint, and include quantitative methodologies and the use of statistics (Walter and Andersen 2013). They draw on perspectives and understandings that have consistently been excluded from research processes and may shape every aspect of the methodology, from intersubjective positions that inform the research and what is regarded as knowledge, to what knowledges and research topics are prioritised, and the nature of the interactions between researchers and participants (Walter and Andersen 2013: 63–65, Walter and Suina 2019). For example, in the field of health, Indigenous and non-Indigenous scholars are developing a new Indigenist Health Humanities that foregrounds Indigenous sovereignty and Indigenous methods to improve health for Indigenous people that 'attends to the nature and function of race within an Australian context' (p. 4) in addition to understanding how Indigenous peoples experience racism in the health system (Watego *et al.* 2021). In line with our argument for data for anti-racism and the limited use of Indigenous methodologies to date, particularly at the national level, we call for greater engagement with these methodologies, to identify further gaps in our knowledge of racism, bridge those gaps, and direct future research.

5.5. Strengths and Limitations

The article has some limitations worth noting. First, our focus on national-level research and data has precluded research conducted in specific Australian states, cities and other localities. For a more complete understanding of racism data in Australia, future reviews could include research conducted across these levels. Second, our review provides only a partial picture of racism research in Australia since it focuses on quantitative methodologies and on self-reported racism. A review of the considerable literature on qualitative racism data remains an important undertaking for future research. A review on researcher reports (e.g. segregation) and on disparities related to 'race' and ethnicity (e.g. in unemployment, incarceration or ill health), remains for future inquiry as well.

Finally, we would like to reiterate the study's key strengths. This study is the first to comprehensively take stock of racism data in Australia, with a focus on quantitative data. To our knowledge, this is also the first study to comprehensively review, organise and classify racism data worldwide. Our focus on informing anti-racism nationally by identifying and filling data gaps is novel in the Australian context, and contributes to national policymaking as a basis for a data management plan. By offering the study as a template for other national and international stocktakes, we hope to contribute to better coordination of anti-racism globally. Our invocation of 'data for anti-racism' prompts researchers towards a more active reorientation to using racism data.

Notes

1. Throughout this article, we understand data as information about social phenomena, produced through systematic observations that can draw on multiple human senses (e.g. sight, hearing) (Blaikie 2003: 15–16).
2. For more information see: https://www.westernsydney.edu.au/challengingracism/challenging _racism_project/our_research/anti-racism_training_projects; https://www.westernsydney. edu.au/challengingracism/challenging_racism_project/our_research/face_up_to_racism_ 2015-16_national_survey; https://www.westernsydney.edu.au/challengingracism/challenging_ racism_project/our_research/everyday_racism_app
3. Note this study also uses national data from the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) 2014–2015.

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No potential conflict of interest was reported by the author(s).

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An asterisk (*) denotes inclusion in the stocktake review.

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Appendix 1

Study names and publications included in the review

Study name / lead author name	Publications included in the review (reporting racism data)
Australian Election Study (AES)	Guan, Q., & Pietsch, J. (2022). The impact of intergroup contact on attitudes towards immigrants: a case study of Australia. *Ethnic and Racial Studies*, *45* (12), 2309–2339.
Australian Jewish Community Survey	Graham, D. & Markus, A. (2018). *Prelminary Findings: Gen17 Australian Jewish Community Survey*. Australian Centre for Jewish Civilisation.
	Markus, A., Jacobs, N. & Aronov, T. (2009). *Preliminary Findings: Melbourne & Sydney. Report Series on th Gen08 Survey. Report 1*. Australian Centre for Jewish Civilisation.
	Markus, A., Munz, M. & Munz, T. (2020). *Jewish Education in Melbourne*. Gen17 Australian Jewish Community Survey. Australian Centre for Jewish Civilisation.
	Taft, J. & Markus, A. (2011). *Antisemitism. Report Series on the Gen08 Survey*. Report 4. Australian Centre for Jewish Civilisation.
Australian Survey of Social Attitudes (AuSSA)	Mansouri, F., & Vergani, M. (2018). Intercultural contact, knowledge of Islam, and prejudice against Muslims in Australia. *International Journal of Intercultural Relations, 66*, 85–94.
	Vergani, M., Mansouri, F., & Orellana, L. (2022). Terrorism concern and persistence of negative attitudes towards Islam and Muslims. *Journal of Community & Applied Social Psychology*, *32*(6), 1029-1046.
Australian Values Study (AVS)	Shin, H., & Dovidio, J. F. (2018). Differences, threats, values, and country-specific prejudice toward immigrants and foreign workers in three major receiving countries: The United States, Germany, and Australia. *Journal of Social Issues, 74*(4), 737–755.
Australians Today	Markus, A. B. (2016). *Australians today: the Australia@ 2015 Scanlon foundation survey*. ACJC Monash University.
Building a New Life in Australia (BNLA)	Department of Social Services (DSS) (2017). *Building a New Life in Australia (BNLA): The Longitudinal Study of Humanitarian Migrants – Findings from the first three waves*. Canberra: Department of Social Services.
	Department of Social Services (DSS) (2020). *Building a New Life in Australia (BNLA): The Longitudinal Study of Humanitarian Migrants – Wave 5 Update* (Addendum to the Wave 3 Report). Canberra: National Centre for Longitudinal Data.
	O'Donnell, A. W., Paolini, S., & Stuart, J. (2022). Distinct trajectories of psychological distress among resettled refugees: Community acceptance predicts resilience while low ingroup social support predicts clinical distress. *Transcultural Psychiatry*, 1-13, 13634615221098309.
Carey *et al.* (2021)	Carey, R. N., El-Zaemey, S., Daly, A., Fritschi, L., Glass, D. C., & Reid, A. (2021). Are there ethnic disparities in exposure to workplace hazards among New Zealand Migrants to Australia? *Asia Pacific Journal of Public Health*, *33*(8):870–879.
Cyber Racism and Community Resilience (CRaCR)	Jakubowicz, A., Dunn, K., Mason, G., Paradies, Y., Bliuc, A. M., Bahfen, N., & Connelly, K. (2017). *Cyber racism and community resilience*. London: Palgrave Macmillan.

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Study name / lead author name	Publications included in the review (reporting racism data)
Department of Immigration and Multicultural Affairs (DIMA) Anti-Racism Campaign 1998	Department of Immigration and Multicultural Affairs (DIMA) (1998). *The anti-racism campaign: Quantitative market research to guide campaign development*. Canberra: Department of Immigration and Multicultural Affairs.
Ewart *et al.* (2021)	Ewart, J., O'Donnell, K., & Walding, S. (2021). Australians' divergent opinions about Islam and Muslims. *Journal of Sociology*, 58(1), 45–58.
Face Up to Racism National Survey	Blair, K., Dunn, K., Kamp, A., & Alam, O. (2017). *Challenging Racism Project 2015–16 National Survey Report*. Sydney: Western Sydney University.
	Dunn, K. M., Blair, K., Bliuc, A. M., & Kamp, A. (2018). Land and housing as crucibles of racist nationalism: Asian Australians' experiences. *Geographical Research*, 56(4), 465–478.
	Dunn, K. M., Diallo, T. M., & Sharples, R. (2021). Segmenting anti-Muslim sentiment in Australia: Insights for the diverse project of countering Islamophobia. *Ethnicities*, 21(3), 538–562.
	Forrest, J., K. Blair and K. Dunn (2021). Racist attitudes, out-groups and the Australian experience. *Australian Journal of Social Issues 56*(1): 78–93.
	Kamp, A., Alam, O., Blair, K., & Dunn, K. (2017). Australians' views on cultural diversity, nation and migration, 2015-2016. *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, 9(3), 61–83.
	Kamp, A., Dunn, K., Paradies, Y., & Blair, K. (2018). Aboriginal and Torres Strait Islander people's attitudes towards Australian multiculturalism, cultural diversity, 'race' and racism, 2015–16. *Australian Aboriginal Studies*, (2), 50.
	Sharples, R. & Blair, K. (2021). Claiming 'anti-white racism' in Australia: Victimhood, identity, and privilege. *Journal of sociology*, 57: 3, 559–576.
Farbenblum and Berg (2020)	Berg, L. & Farbenblum, B. (2020). *As if we weren't humans: The abandonment of temporary migrants in Australia during COVID-19*. Migrant Worker Justice Initiative.
	Farbenblum, B. & Berg, L. (2020) "We might not be citizens but we are still people": Australia's disregard for the human rights of international students during COVID-19, *Australian Journal of Human Rights*, 26:3, 486–506, doi:10.1080/1323238X.2021.1901645
Footprints in Time: The Longitudinal Study of Indigenous Children (LSIC)	Bodkin-Andrews, G., Lovelock, R., Paradies, Y., Denson, N., Franklin, C., & Priest, N. (2017). Not my family: Understanding the prevalence and impact of racism beyond individualistic experiences. In *Indigenous children growing up strong* (pp. 179–208). London: Palgrave Macmillan.
	Cave, L., Cooper, M. N., Zubrick, S. R., & Shepherd, C. C. J. (2019a). Caregiver-perceived racial discrimination is associated with diverse mental health outcomes in Aboriginal and Torres Strait Islander children aged 7–12 years. *International Journal for Equity in Health, 18*, 142.
	Cave, L., Shepherd, C. C., Cooper, M. N., & Zubrick, S. R. (2019b). Racial discrimination and the health and wellbeing of Aboriginal and Torres Strait Islander children: Does the timing of first exposure matter? *SSM-Population Health*, 9, 100492.
	Islam, M. I., Chadwick, V., Esgin, T., & Martiniuk, A. (2022). Bullied because of their teeth: evidence from a longitudinal study on the impact of oral health on bullying victimization among Australian Indigenous children. *International journal of environmental research and public health*, 19(9), 4995.
	Macedo, D. M., Smithers, L. G., Roberts, R. M., Haag, D. G., Paradies, Y., & Jamieson, L. M. (2019a). Does ethnic-racial identity modify the effects of racism on the social and emotional wellbeing of Aboriginal Australian children? *PLOS One*, 14(8), e0220744.
	Macedo, D. M., Smithers, L. G., Roberts, R. M., Paradies, Y., & Jamieson, L. M. (2019b). Effects of racism on the socio-emotional wellbeing of Aboriginal Australian children. *International journal for equity in health*, 18, 1–10.
	Shepherd, C. C., Li, J., Cooper, M. N., Hopkins, K. D., & Farrant, B. M. (2017). The impact of racial discrimination on the health of Australian Indigenous children aged 5–10 years: analysis of national longitudinal data. *International Journal for Equity in Health*, 16(1), 1–12.
General Social Survey (GSS)	Bastos, J. L., Harnois, C. E., & Paradies, Y. C. (2018). Health care barriers, racism, and intersectionality in Australia. *Social Science & Medicine*, 199, 209–218.
	Blackham, A., & Temple, J. (2020). "Intersectional discrimination in Australia: An empirical critique of the legal framework." *University of New South Wales Law Journal 43*(3), 773–800.
	Temple, J. B., Brijnath, B., Enticott, J., Utomo, A., Williams, R., & Kelaher, M. (2021). Discrimination reported by older adults living with mental health conditions: types, contexts and association with healthcare barriers. *Social Psychiatry and Psychiatric Epidemiology*, 56(6), 1003–1014.

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Study name / lead author name	Publications included in the review (reporting racism data)
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Geographies of Racism National Survey	Dunn, K. M., Kamp, A., Shaw, W. S., Forrest, J., & Paradies, Y. (2010). Indigenous Australians' attitudes towards multiculturalism, cultural diversity, 'race' and racism. *Journal of Australian Indigenous Issues, 13*(4), 19–31.
	Dunn, K., & Nelson, J. K. (2011). Challenging the public denial of racism for a deeper multiculturalism. *Journal of Intercultural Studies*, 32(6), 587–602.
	Elias, A., & Paradies, Y. (2016). Estimating the mental health costs of racial discrimination. *BMC Public Health*, 16(1), 1–13.b
	Forrest, J., Elias, A., & Paradies, Y. (2016). Perspectives on the geography of intolerance: Racist attitudes and experience of racism in Melbourne, Australia. *Geoforum*, 70, 51–59.
	Habtegiorgis, A. E., Paradies, Y. C., & Dunn, K. M. (2014). Are racist attitudes related to experiences of racial discrimination? Within sample testing utilising nationally representative survey data. *Social Science Research*, 47, 178–191.
	Pedersen A, Dunn K, Forrest J, McGarty C. (2012). Prejudice and discrimination from two sides: How do middle-eastern australians experience it and how do other australians explain it? *Journal of Pacific Rim Psychology*, 6(1):18-26.
	Victorian Health Promotion Foundation (VicHealth). (2007). *More than tolerance: Embracing diversity for health. Discrimination affecting migrant and refugee communities in Victoria, its health consequences, community attitudes and solutions. A summary report*. Victoria: Carlton South.
Gravelle (2021)	Gravelle, T. B. (2021). Explaining Islamophobia in Australia: partisanship, intergroup contact, and local context. *Australian Journal of Political Science*, 56(2), 132–152.
Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC)	Priest, N., King, T., Bécares, L., & Kavanagh, A. M. (2016). Bullying victimization and racial discrimination among Australian children. *American Journal of Public Health*, 106(10), 1882–1884.
	Priest, N., Kavanagh, A., Bécares, L., & King, T. (2019). Cumulative effects of bullying and racial discrimination on adolescent health in Australia. *Journal of Health and Social Behavior*, 60 (3), 344–361.
Household, Income and Labour Dynamics in Australia (HILDA)	Duncan, A., Mavisakalyan, A., & Tarverdi, Y. (2019). Self-assessed vs. statistical evidence of racial discrimination: The case of indigenous Australians. *Applied Economics*, 51(12), 1232–1247.[3]
	Hahn, M., & Wilkins, R. (2013). Perceived job discrimination in Australia: Its correlates and consequences. *Australian Journal of Labour Economics*, 16(1), 43–64.
Issues in Multicultural Australia Survey	McAllister, I., & Moore, R. (1989). *Ethnic prejudice in Australian society: patterns, intensity and explanations*. Office of Multicultural Affairs.
	McAllister, I., & Moore, R. (1991). The development of ethnic prejudice: An analysis of Australian immigrants. *Ethnic and Racial Studies*, 14(2),127–151.
Kamp et al. (2021)	Kamp, A., Denson, N., Atie, R., Dunn, K., Sharples, R., Vergani, M., Walton, J. & Sisko, S. (2021). Asian Australians' Experiences of Racism During The COVID-19 Pandemic. Centre for Resilient and Inclusive Societies.Kamp, A., Denson, N., Sharples, R., & Atie, R. (2022). Asian Australians' Experiences of Online Racism during the COVID-19 Pandemic. *Social Sciences*, 11(5), 227.
Living Diversity Report	Ang, I., Brand, J. E., Noble, G., & Wilding, D. (2002). *Living diversity: Australia's multicultural future*. NSW: Special Broadcasting Services Corporation.
Longitudinal Study of Immigrants in Australia (LSIA)	Department of Immigration and Citizenship (DIAC). (2007). *New migrant outcomes: Results from the third longitudinal survey of immigrants to Australia*. Canberra, ACT: DIAC.
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* Note that data sources also include survey forms, data dictionaries and technical manuals, and a report summary, which are not cited here. A full list is available from the authors.