

A longitudinal mediation analysis of the effect of Aboriginal Australian mothers' experiences
of racism on children's socio-emotional well-being



This report is submitted in partial fulfillment of the degree of Master of Psychology (Clinical)

School of Psychology

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Declaration

This dissertation contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, contains no materials previously published except where due reference is made.

I give permission for the digital version of my dissertation to be made available on the web, via the University's digital research repository, the Library Search, and also through web search engines, unless permission has been granted by the School to restrict access for a period of time.

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Journal Title Page**A longitudinal mediation analysis of the effect of Aboriginal Australian mothers' experiences of racism on children's socio-emotional well-being**

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Short title: Racism and Child Socio-Emotional Well-being

Keywords: Racism, Aboriginal, Children's Socio-Emotional Well-being

Public Significance Statement: Racial discrimination can cause a range of physical and socio-emotional problems across the lifespan. This study provides further evidence that mother's exposure to racism during pregnancy increased the risk of their child going on to develop socio-emotional problems. However, there was no evidence to suggest that this effect was transmitted through impacts on mothers' sense of parenting competence.

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Author Note

This article is intended for submission to Cultural Diversity & Ethnic Minority Psychology, which adheres to the APA 7th reference style. Whilst the article exceeds the journal word limit of 6000 words (excluding reference pages, tables, and figures) it meets the requirements for Research Project II in Clinical Psychology of 6000-8000 words. Please see Appendix A for the Instructions to Authors and Appendix B for the Certification of Compliance with APA Ethical Principles.

Author Contributions

X: Conceptualisation, Methodology, Formal Analysis, Writing – Original, Writing – Reviewing and Editing. **XX:** Conceptualisation, Methodology, Formal Analysis, Writing – Reviewing and Editing, Supervision. **XXX:** Conceptualisation, Methodology, Writing – Reviewing and Editing, Supervision. **XXXX:** Investigation, Project Administration, Funding Acquisition

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Data, Analytic Methods, and Research Materials Availability

Data cannot be shared publicly because of its sensitive nature. The study participants constituted a significant proportion of the Aboriginal and Torres Strait Islander community in South Australia and the release of data could lead to the participants' identification. Data is available from the Aboriginal Research Advisory Committee of the Indigenous Oral Health Unit (Email: iohu@adelaide.edu.au. Phone: +61 8 8313 4611) for researchers who meet the

criteria for access to confidential data. The R software syntax used in this analysis can be freely shared upon request.

Published Studies using the SAABC Data

The data used in the present study is derived from a larger dataset, the SAABC study, formerly known as the Baby Teeth Talk study. The study protocol was published by Merrick et al. (2012) and a cohort profile was published at the 5-year follow-up by Jamieson et al. (2021). The results of the SAABC research study was reported in Jamieson et al. (2019), Smithers et al. (2017), Santiago et al. (2020), and Smithers et al. (2021) although these studies did not assess the same exploratory variables as the present study.

References

- Jamieson, L., Smithers, L., Hedges, J., Mills, H., Kapellas, K., Ha, D., Do, L., & Ju, X. (2019). Follow-up of Intervention to Prevent Dental Caries Among Indigenous Children in Australia: A Secondary Analysis of a Randomized Clinical Trial. *JAMA Network Open*, *2*(11), e1915611-e1915611. <https://doi.org/10.1001/jamanetworkopen.2019.15611>
- Jamieson, L. M., Hedges, J., Ju, X., Kapellas, K., Leane, C., Haag, D. G., Santiago, P. R., Macedo, D. M., Roberts, R. M., & Smithers, L. G. (2021). Cohort profile: South Australian Aboriginal Birth Cohort (SAABC)—a prospective longitudinal birth cohort. *BMJ Open*, *11*(2), e043559. <https://doi.org/10.1136/bmjopen-2020-043559>
- Merrick, J., Chong, A., Parker, E., Roberts-Thomson, K., Misan, G., Spencer, J., Broughton, J., Lawrence, H., & Jamieson, L. (2012). Reducing disease burden and health inequalities arising from chronic disease among Indigenous children: an early childhood caries intervention. *BMC Public Health*, *12*(1), 323. <https://doi.org/10.1186/1471-2458-12-323>
- Santiago, P. H. R., Nielsen, T., Roberts, R., Smithers, L. G., & Jamieson, L. (2020). Sense of personal control: Can it be assessed culturally unbiased across Aboriginal and non-Aboriginal Australians? *PloS one*, *15*(10), e0239384. <https://doi.org/10.1371/journal.pone.0239384>
- Smithers, L. G., Hedges, J., Ribeiro Santiago, P. H., & Jamieson, L. M. (2021). Dietary Intake and Anthropometric Measurement at Age 36 Months Among Aboriginal and/or Torres

Strait Islander Children in Australia: A Secondary Analysis of the Baby Teeth Talk Randomized Clinical Trial. *JAMA Network Open*, 4(7), e2114348-e2114348.
<https://doi.org/10.1001/jamanetworkopen.2021.14348>

Smithers, L. G., Lynch, J., Hedges, J., & Jamieson, L. M. (2017). Diet and anthropometry at 2 years of age following an oral health promotion programme for Australian Aboriginal children and their carers: a randomised controlled trial. *British Journal of Nutrition*, 118(12), 1061-1069. <https://doi.org/10.1017/S000711451700318X>

Abstract

Objectives: It is known that parental experiences of racism are associated with poorer mental health in children. However, little is known about how racism is intergenerationally transmitted in Australian Aboriginal and Torres Strait Islander (hereafter referred to as Aboriginal) persons. The present study aimed to explore the effect of Aboriginal mothers' experiences of racism on children's socio-emotional well-being mediated by parenting sense of competence. **Method:** Pregnant Aboriginal Australian women ($N = 160$, mean age = 24.6, $SD = 5.4$) reported their experiences of racism using the Measure of Indigenous Racism Experiences instrument, and completed a follow-up survey five years later, reporting their sense of parenting competence using the Parenting Sense of Competence scale and their child's socio-emotional well-being using the Strengths and Difficulties Questionnaire. A single causal mediation analysis was used to examine the effects while accounting for confounding variables (mother's age, education, and socioeconomic status). **Results:** Mothers who experienced racism were at a 28% increased odds of their five-year-old child experiencing socio-emotional problems, 95% CI [0.55, 2.98]. This effect was not mediated by sense of parenting competence, despite an effect between parenting competence and children's socio-emotional well-being ($OR = 0.44$, 95% CI [0.19, 1.06]). **Conclusions:** The findings suggest that maternal experiences of racism have a longitudinal effect on their children's socio-emotional well-being, and this effect is not mediated through the mothers' sense of parenting competence. These findings highlight the importance of reducing experiences of racism as these have far-reaching effects across generations on socio-emotional well-being.

A longitudinal mediation analysis of the effect of Aboriginal Australian mothers' experiences of racism on children's socio-emotional well-being

Racism is a pervasive stressor that has been found to have negative health effects, on both psychological and physical health (Paradies et al., 2015). Research to date has predominantly focused on the health inequalities resulting from direct experiences of racism in adults (Heard-Garris et al., 2018), with less known about the effect of parents' experience of racism on their children. This is an important area for further research as the health of children and young people is at an increased vulnerability to adversity and stress (Anderson et al., 2015). The current study aims to explore how Aboriginal mothers' experiences of racism may affect their child's social-emotional well-being.

Defining Racism

Racism has historically been defined as “the exercise of power against a racial group defined as inferior by individuals and institutions with the intentional or unintentional support of the entire culture” (Jones, 1997). Importantly, this definition highlights that racism constitutes more than deliberate and direct acts of race-based discrimination and oppression, extending to the inconspicuous forms of racism that systemically impact day-to-day functioning in society. Racism manifests in society through three forms: individual racism, institutional racism and cultural racism (Neblett, 2019; Williams et al., 2019). *Individual racism* is underpinned by a belief that one's race is superior which results in behaviour that acts to maintain inequalities between racial groups. *Institutional racism* refers to laws, practices and customs that ultimately restrict minorities access to equal rights and opportunities. *Cultural racism* refers to the broad ideologies of inferiority that are presented within society (through language, symbols and values). This category predominantly encompasses implicit racism, resulting from the commonplace displays that fail to promote racial equality (e.g., minority representations in the media) and create harmful norms and

biases (Williams et al., 2019). All forms of racism act to reinforce negative stereotypes about racial minorities, with lasting effects observable across generations.

Although racism manifests in a series of ways within society, research predominantly focuses on self-reported discrimination which is a selection of the total displays of deliberate or unintentional racism that are actively perceived by the targeted individual (Williams et al., 2019). Individuals may suffer the effects of discrimination from direct and indirect experiences (Priest et al., 2017). *Direct racism* refers to the direct personal experiences of discrimination in which the individual themselves are the target. To assess direct racism, participants in research studies will often self-report, or a caregiver will report on behalf of their child of the frequency of times they were discriminated against because of their racial identity. *Indirect racism* refers to indirect exposure to prejudice and discrimination. One form of indirect racism is *vicarious racism*, occurring when prejudice inflicted on ones family, friends and strangers induces personal distress and a heightened sense of danger, vulnerability and emotional reactions (Harrell, 2000). For children who are developing within the context of their environment, witnessing their caregivers' experiences and responses can shape the child's experience of the world as unjust and create a sense of helplessness, contributing to mental health difficulties (Heard-Garris et al., 2018). Vicarious racism can be measured by one person (e.g., a caregiver) self-reporting their experiences of racism and exploring the effects on a known person (e.g., a child). Another form of indirect racism is through the *pre-birth pathway* occurring prior to a child's birth, through antenatal exposure (Heard-Garris et al., 2018). Unlike experiences of vicarious racism, the unborn child does not witness racism experienced by the mother, but rather, is susceptible to prenatal exposure to racism-induced stress. In research, mothers report their experience of racism when they are pregnant which is then either linked to pre-term health outcomes of their child, or longitudinally linked to a broader range of child outcomes post-birth.

Theoretical Framework: Modelling the Association Between Racism and Health

Two models are predominantly adopted to explain the association between racism and health. The Biopsychosocial Model of Racism (Clark et al., 1999) and Multidimensional Conceptualisation of Racism Related Stress (Harrell, 2000) both characterise racism as a pervasive stressor. The link between health and well-being is multifaceted and complex, encompassing multiple mediating and moderating influences (Neblett, 2019). These influences occur in the context of social, historical, and cultural contexts, and ultimately cumulate to influence health over time. Within these processes, racially based stressors affect physiological and psychological health (Williams et al., 2019). Through a physiological lens, exposure to racial stressors that foster a hypervigilant, threat-based response induces chronic levels of stress which has been linked to a range of diseases. Through a psychological lens, the anticipatory risk of experiencing racism can cause worry and rumination, which may both cause and exacerbate physiological responses. Models of racism are built on the foundational premise that the multiple levels of influence that construct an environment are core to inflicting health problems, as these levels do not just affect an individual, but also their larger ethnic community. This approach draws on Bronfenbrenner's Ecological Systems Theory which has been widely applied to understand and explain children's development (Bronfenbrenner, 1979). Children develop within the context of their environment, involving a complex interaction between their most immediate environment (e.g., their home) and broader influences (e.g., society and culture). When racism is directed to their parents and/or their ethnic group, children may be affected by the exposure to racism and racial inequalities in their broader environment.

Based on the chronicity of racial discrimination exposure and evolving contextual influences over time, affecting how racism is manifested, an expert review has called for research to utilise longitudinal research (Neblett, 2019). 'Snapshot' views provided by cross-

sectional research fail to account for the directionality of effects (i.e., accounting for the effect racism has on health and vice-versa, the effect of health on racism). Longitudinal research can also provide valuable insight into the effect of racism during sensitive developmental periods to indicate when ethnic minority groups may be increasingly vulnerable across the lifespan. For example, Gibbons et al. (2004) focused on African American participants and observed a link between parental discrimination and child health difficulties (e.g., child distress and vulnerability to substance use), inconsistent with previous research proposing that younger children were not cognitively and socially developed enough to perceive and process racism (Caughy et al., 2004; Ford et al., 2013). The knowledge of developmental periods in which children's well-being is increasingly affected by racism is essential for policy planning by informing when interventions would be most effective. Furthermore, it would contribute to the wider theoretical knowledge of the underlying processes that link social determinants with health outcomes.

Racism as a Social Determinant of Health

Racism has been linked to a range of health outcomes. Through surveys and a meta-analysis examining racial discrimination and health outcomes, the magnitude of the problem incurred as a result of racial discrimination was evident, as discrimination was estimated to cost the Australian economy 235,452 in disability-adjusted life years lost (equivalent to \$37.9 billion per annum; Elias & Paradies, 2016). To put this substantial loss into perspective, the cost is approximately 3.02% of the annual Gross Domestic Product (GDP) between 2001 and 2011.

Racism has been associated with a range of physical and mental health outcomes. Paradies et al. (2015) conducted a systematic review and meta-analysis of 293 studies that assessed the association between racism, mental health, and physical health outcomes.

Racism was associated with poorer general health ($r = -0.13$, 95% CI $[-0.18, -0.09]$, $k = 30$),

and with poorer physical health conditions ($r = -0.09$, 95% CI $[-0.12, -0.06]$, $k = 50$) such as being overweight and blood pressure abnormalities. Similarly, racism was strongly associated with poor mental health ($r = -0.23$, 95% CI $[-0.24, -0.21]$, $k = 227$) including mental health disorders such as post-traumatic stress, depression, and anxiety. In 2015, racism was added to the Adverse Childhood Experiences (ACE) screener, a measure of potentially traumatic childhood events or environmental conditions (Cronholm et al., 2015; Wade et al., 2014). ACEs can induce toxic stress (extended or prolonged stress) which impacts neurological development and which has been linked to a range of adult outcomes, including chronic health problems, mental health problems, substance use and poorer educational and employment opportunities (Felitti et al., 1998). The literature and consequently measures such as the ACE screener predominantly focuses on the direct and individual experience of racism for adults. However, there is evidence to suggest that the detrimental health effects of racism are not only experienced by those directly targeted but is also transmitted through generations of families.

Transmitting Racism

The interpersonal transmission of ethnic inequalities in health begins during pregnancy. Maternal stress increases the likelihood of birth-related complications, including low birth weight and developmental delays (Dole et al., 2003; Mulder et al., 2002). Since racism is one type of stressor, the research follows that racial discrimination is similarly associated with preterm delivery and low birth weight (Collins et al., 2004). This indicates the influence of racism from the very early stages of life.

Vicarious racism can occur in children when they are witnesses to the effects of racism experienced by their caregiver. Racism experienced by a caregiver has been linked to poorer child socio-emotional, behavioural and mental health outcomes (Anderson et al., 2015; Bécares et al., 2015; McNeil et al., 2014; Park et al., 2018; Tran, 2014; Zeiders et al.,

2016). A systematic review by Heard-Garris et al. (2018) aimed to describe the associations between caregiver experiences of racism with child mental health and identified 30 studies that met inclusion criteria. Almost consistent across the research studies was the negative effect vicarious racism had on children's socio-emotional and mental health outcomes. However, few studies had looked at the effect of pre-term experiences of racism, another way in which a child is indirectly exposed to racism. Unborn children are not directly witnessing their mother's exposure to racism, nor its effects, but may be exposed to racism-induced stress. Further, prenatal reports of racism may act as a proxy for the parents' (and extended family's) future experiences of racial discrimination during their child's first years, which can then be vicariously experienced by children. The effects of prenatal exposure to racism on children's mental health is an important area of study to quantify how early racism experienced by parents can affect children's later outcomes.

Among the studies that investigate the effects of racism on the health of Aboriginal Australians, the majority of these studies focused on direct experiences of racism (instead of intergenerational experiences of racism). For instance, in a cross-sectional study of 345 Aboriginal Australians born in the Northern Territory, self-reported experiences of racism were associated with the socio-emotional well-being of individuals aged between 16 and 20 years-of-age (Priest et al., 2011). Using the Strong Souls tool, associations were reported between racism and increased anxiety ($OR = 2.18$, 95% CI [1.37, 3.46]), depression ($OR = 2.16$, 95% CI [1.33, 3.53]), suicide risk ($OR = 2.32$, 95% CI [0.25, 4.00]), and poor overall mental health ($OR = 3.35$, 95% CI [2.04, 5.51]). Research has also indicated that these effects are age specific. Children who had experienced racism at as young as six years were at a higher risk of emotional and behavioural difficulties ($RR_a = 1.72$, 95% CI [1.16, 2.54]), than children who were two years older ($RR_a = 1.05$, 95% CI [0.52, 2.09]; Macedo et al., 2019). Additionally, a study involving a national sample of 1,759 Aboriginal Australian children,

measured early experiences of racism at four years-of-age through a caregiver's report of their child being treated unfairly or bullied because they were Aboriginal (Cave et al., 2019). These direct experiences of racism were associated to the children's socio-emotional well-being outcomes when they were aged 7–12 years, measured with the caregiver version of the Strengths and Difficulties Questionnaire (SDQ). However, while these studies indicated that direct racism had concerning consequences for children, research has shown that vicarious racism was more commonly experienced by Aboriginal children than direct experiences of racism, with 20.4% of children directly experiencing racism and 44.5% of children experiencing vicarious racism through their primary caregiver by eleven years-of-age (Cave et al., 2018). Thus, studies about direct experiences of racism are likely to capture only some of the effects of racism and may underestimate the total effect racism exerts on the socio-emotional well-being of Aboriginal Australians.

Vicarious experiences of racism occur early in life, with 77% of Aboriginal children who were exposed to vicarious racism through their primary caregiver, first being exposed at four years of age (Cave et al., 2018). Consistent with previous research with other ethnic minority groups, vicarious racism has been found to be associated with poor physical health outcomes for Aboriginal people (Priest et al., 2012). It was proposed that racism may detrimentally affect caregivers' ability and resources to provide an environment fostering health. Shepherd et al. (2017) analysed longitudinal data for 1,239 Aboriginal children aged 5–10 years, reporting that 40% of primary caregivers experienced racial discrimination. More chronic and frequent caregiver exposure to racist experiences was also found to have a larger effect on children's socio-emotional well-being ($OR = 1.68$, 95% CI [1.02, 2.74]) than time-limited exposure (i.e., racist exposure reported at a single time-point; $OR = 0.84$, 95% CI [0.56, 0.26]). Given the degree of harm indirect racism may have and that there is low

uniformity in the stress and resilience factors across cultures, it is important to conduct further research into the indirect effects of racism within Aboriginal Australian populations.

Mechanisms of Transmission

While the abovementioned studies examined the transmission of parental experiences of racism to child socio-emotional well-being among Aboriginal Australians, only a few studies have investigated the *mechanism* of transmission. Two overlapping pathways that have been proposed include: (1) early life experiences of, and frequent exposure to, vicarious racism induces chronic stress which has a biological impact on development and health, (2) parental experiences of racism impact parental mental well-being and consequentially, their ability to engage in parenting practises that fosters their child's development (Shepherd et al. (2017). The latter explanation has primarily been investigated through maternal mental health cross culturally, with research indicating that maternal mental health mediates the effects of mother's experience of racism on children's mental health (Bécares et al., 2015; McNeil et al., 2014; Priest et al., 2012; Tran, 2014).

Although to a lesser extent, research has also explored the detrimental impacts on parenting practices arising from racist experiences. Associations have been reported between caregiver racism and children's socio-emotional well-being, mediating by parenting practices (Anderson et al., 2015; Brody et al., 2008; Pascoe & Smart Richman, 2009; Simons et al., 2002; Stevenson, 1995). The common impact of impaired parenting practices is the consequential stain on the parent-child relationship. The degree to which a caregiver *feels* competent to raise their child is central to the parent-child relationship (Albanese et al., 2019). However, studies exploring parenting practices do not investigate this more cognitive level of functioning – parenting sense of competence. A mother's sense of parenting competence affects the quality of care they are able to provide during infancy and leads to emotional and behavioural well-being later in the child's life (De Haan et al., 2009; Dumka et

al., 2010). Therefore, interventions that address maternal functioning is one potential pathway to improve child outcomes and reduce the negative effect of racism across the generations. A key recommended target against health inequalities are early interventions including through supporting parents with their child as early life experiences are fundamentally recognised as the foundation for later outcomes, and therefore, flow-on effects are expected across the lifespan (Irwin et al., 2007; McCain et al., 2007). In a review by the American Psychological Association (APA) Working Group on Stress and Health Disparities (2017), it was suggested that family-level interventions aimed at decreasing stress reactivity and improving stress recovery should focus on fostering healthy parent-child relationships. A study by Ahun et al. (2018) has provided some support that targeting parenting practices, particularly parenting sense of self-efficacy, through family-based intervention programs, would be a potential target for reducing children's internalising problems. The idea is that this additional support could reduce the harm that racism exerts on families and reduce the intergenerational effects of this negative experience. Inherently, such interventions do not target the root cause of racism – underlying beliefs about power inequalities between racial groups. However, racism itself can be a challenging target-point for intervention for multiple reasons. One reason is that the more subtle nature of microaggressions make these acts harder to identify and therefore, harder to implement direct policy and change (Sue, 2010). In fact, racism is often driven by unconscious prejudice, and therefore, interventions must target ways of thinking that are not necessarily directly taught to future generations. For this reason, intervening to reduce the transmission of racism to socio-emotional well-being may offer an additional resource to mitigate the negative effects of racism. However, to the best of the researchers' knowledge, no study to date has investigated the link between maternal experiences of racism, parenting sense of competence and child socio-emotional well-being outcomes among any ethnic minority group. Establishing if parenting competence could be a target for

intervention is important to buffer families from the harm resulting from experiences of racism. Understanding the mechanism by which racism experienced by parents goes on to affect children's health and development can help to identify areas for intervention to prevent racism experienced by parents from having a transgenerational impact.

Current Study

The current study aims to examine the effect of Aboriginal mothers' experiences of racism on children's socio-emotional well-being and whether this effect is mediated by parenting sense of competence. Specifically, we hypothesise that: (a) children with Aboriginal mothers who experienced higher levels of racial discrimination will have increased socio-emotional difficulties compared to mothers that perceived no discrimination, and; (b) that experiences of racial discrimination will have a negative effect on children's socio-emotional well-being, mediated by a decrease in sense of parenting competence.

Method

Participants and Design

Data used in this study were from a longitudinal study, the South Australian Aboriginal Birth Cohort (SAABC) study. At baseline, South Australian women who were pregnant with an Aboriginal child were recruited ($N = 446$). The women participated in a randomised controlled trial exploring the effects of an early childhood intervention to prevent caries and improve oral health outcomes among Aboriginal children (Merrick et al., 2012). The current study analysed data from a subset of the mothers who self-identified as Aboriginal ($N = 367$). Participants were recruited by convenience sampling through the antenatal clinics of South Australian Aboriginal Community Controlled Health Organisations and Hospitals and received free dental care and a gift card honorarium for their participation. The study design, measures and data collection procedures were reviewed by an Indigenous reference group and Aboriginal researchers with expertise in Aboriginal health.

Informed written consent was obtained in accordance with the National Health and Medical Research Council of Australia (NHMRC) Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research (National Health Medical Research Council, 2003). Ethics approval was obtained from the University of Adelaide Human Research Ethics Committee (Project code: H-057-2010), the Aboriginal Health Council of South Australia (Project code: 04-09-362), the South Australian Department for Health, comprised of the Human Research Ethics Committees of Flinders Medical Centre (Project code: 435-10), Lyell McEwin Hospital (Project code: 2010-160), and Women's and Children's Hospital (Project code: REC2322/11/13).

Assessments involved guided interview questionnaires conducted by an Aboriginal research officer in a place of the participants' choice (e.g., their homes). The initial assessment (T1) took place between February 2010 and May 2011. From the 367 participants in the T1 sample, 293 (79.8%) also participated in the first follow-up survey administered 24 months later, 330 (89.9%) in the second follow-up 36 months after T1, and 223 (60.76%) in the third follow up administered five years after T1, when the child was aged, on average, five years (T2). In our study, we included individuals who participated in both baseline (T1) and at the 5-year follow-up (T2).

Measures

Demographic Information

Demographic variables were assessed at T1. Mothers self-reported their age, race/ethnic identification (response options were "Aboriginal," "Torres Strait Islander," "both" and "other"), education level (response options were "no schooling," "primary school," "high school," "trade or TAFE" and "university"), and their postcode. Socioeconomic status (SES) was measured using the Index of Relative Socio-economic

Advantage and Disadvantage (IRSAD), by linking participants' postcode to data provided by the Australian Bureau of Statistics (2011).

Racial Discrimination

Perceived racial discrimination was measured at T1 using the assessment of exposure to interpersonal racism from the Measure of Indigenous Racism Experiences instrument (MIRE), developed and validated by Paradies and Cunningham (2008). Participants responded to items with the stem "In the last twelve months, have you felt that you have been treated unfairly in any of the following ways because you are Aboriginal?" and followed by 10 items referring to different settings (e.g., "At home, by neighbours or at somebody else's house" and "By the police, security personnel, lawyers or in a court of law"). Response options were on a binary scale (*yes* coded as one or *no* coded as zero) and then summed to quantify levels of exposure in 10 different settings. A higher score indicated a larger number of settings that discrimination was experienced. The distribution of this measure was analysed and as 51.2% of the mother's did not report any experience of racism, there was an observed right-skewness (see Appendix C). Therefore, the outcome was dichotomised to represent 'No Experiences of Racism' for those that did not report racism, or 'Experienced Racism' for those that did experience racism in at least one setting.

Child Socio-emotional Difficulties

At T2, participants completed the Primary Caregiver-Informed Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The psychometric properties of the SDQ have been previously evaluated among Aboriginal children (Williamson et al., 2014; Zubrick et al., 2006). The SDQ is a behavioural screening questionnaire designed to identify emotional and behavioural difficulties in children aged 4–10 years. The instrument includes 25 items assessing emotional symptoms, conduct problems, hyperactivity, peer problems and prosocial behaviour. Participants were asked to rate their child's behaviour (e.g., "Often

fights with other children or bullies them” and “Often seems worried”) within the past six months, and response options were provided using a three-point Likert scale (one as *certainly true*, two as *somewhat true*, three as *not true*). A total difficulties score was calculated as the sum of the above scales, excluding the prosocial scale. Increased scores indicated higher child socio-emotional difficulties. Based on a study conducted in the United Kingdom with a sample of 10,438 5-15-year-old children, scores were dichotomised whereby ≥ 17 indicated an elevated risk of socio-emotional difficulties (Goodman, 2001). This cutpoint score represented children above the 90th percentile of emotional and behavioural difficulties who were predicted to have an increased probability of being independently diagnosed with a psychiatric disorder. Scores in the present study that were ≥ 17 were categorised as ‘Abnormal’ in line with previous research with Australian Aboriginal children (Macedo et al., 2019; Shepherd et al., 2017). Children who fell within the ‘Normal’ range (0-13) and the ‘Borderline’ range (14-16), were both classified in the ‘Normal’ range, in line with previous research also employing a dichotomised analysis (Macedo et al., 2019; Shepherd et al., 2017).

Parenting Sense of Competence

At T2, participants completed the Parenting Sense of Competence Scale (PSOC), an instrument developed to measure parents’ sense of efficacy and satisfaction with parenting (Johnston & Mash, 1989). The instrument asked participants how strongly they agreed with 16 statements (e.g., “The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired” and “Being a parent is manageable and my problems can be easily resolved”). Response options were on a six-point Likert scale (ranging from one as *strongly disagree*, to six as *strongly agree*). A total score was calculated as the sum of all items which ranged from 16 to 96, where an increased score indicated an increased sense of parenting competence and satisfaction. The outcome was dichotomised where the lowest tertile of scores represented ‘Low PSOC’, and the remainder

of the sample was categorised as representing moderate to high parenting competence (referred to throughout as 'Normal PSOC').

Analysis Strategy

Based on recommendations by Graham (2009), multiple imputation was not conducted as missing values for individual items were less than 5%. A single causal mediation analysis, following the methodological approach developed by Khan et al. (2021), was employed to decompose the average treatment effect (ATE) of maternal experiences of racism on children's socio-emotional well-being into natural direct and indirect effects. The direct effect ($A \rightarrow Y$) is defined as the effect of maternal experiences of racism (A) on children's socio-emotional well-being (Y) that is not mediated by parenting sense of competence (M). The indirect effect is defined as the effect of maternal racism (A) on children's socio-emotional well-being (Y) that is mediated through parenting sense of competence (M). Causal mediation analysis aims to estimate the direct and indirect *causal* effects of the exposure on the outcome after accounting for confounders. Education, SES and age were included as confounders as these variables impact perceived racial discrimination and children's socio-emotional well-being (Dickson et al., 2016; English et al., 2014; Evans & Kim, 2013). To attribute the effect to the link between racism, parenting competence and child outcomes, these confounding variables were controlled for in the analyses.

To estimate the ATE from observational data, the assumptions of consistency, positivity, exchangeability, and faithfulness are required, while additional assumptions are made to decompose the ATE into natural direct and indirect effects. These assumptions were that all confounders were measured between: (1) the exposure (A) and outcome (Y); (2) the mediator (M) and outcome (Y); and (3) the exposure (A) and mediator (M). Additionally, it was assumed that the mediator-outcome confounders were not affected by the exposure; that is, there were no measured exposure-induced mediator-outcome confounders.

Results

The demographic characteristics, exposure, mediator and outcome scores for mothers in the response and complete case samples are shown in Table 1.

Table 1

Distribution of demographics characteristics and assessment scores for the response sample and complete case sample

Variable	Response sample (<i>N</i> = 223)		Complete cases (<i>N</i> = 160)	
	<i>n</i>	% or <i>M</i> (<i>SD</i>)	<i>n</i>	% or <i>M</i> (<i>SD</i>)
Level of education				
No schooling	4	1.8	3	1.9
High school or less	151	67.7	108	67.5
Trade or TAFE	47	21.1	36	22.5
University	21	9.4	13	8.1
Missing	0	0.0	0	0.0
Mother's age				
Age (years)	216	25.1 (5.7)	153	24.6 (5.4)
Missing	7	3.1	7	4.4
IRSAD				
1 (most advantaged)	97	43.5	66	41.25
2	49	22.0	38	23.8
3	62	27.8	46	28.8
4 or 5 (most disadvantaged)	15	6.7	10	6.3
Missing	0	0.0	0	0.0
MIRE total score				
No experiences of racism	106	47.5	82	51.3
Experienced racism	113	50.7	78	48.8
Missing	4	1.8	0	0.0

Variable	Response sample (<i>N</i> = 223)		Complete cases (<i>N</i> = 160)	
	<i>n</i>	% or <i>M</i> (<i>SD</i>)	<i>n</i>	% or <i>M</i> (<i>SD</i>)
SDQ total score				
Normal	156	8.9 (4.1)	125	9.3 (4.0)
Abnormal	41	20.6 (3.6)	35	20.5 (3.8)
Missing	26	11.7	0	0.0
PSOC total score				
Normal PSOC	65	83.3 (8.8)	58	83.4 (8.9)
Low PSOC	115	67.7 (5.9)	102	63.1 (4.8)
Missing	43	18.3	0	0

Note. *M* = Mean; *SD* = Standard deviation; IRSAD = Index of Relative Socio-economic

Advantage and Disadvantage; MIRE = Measure of Indigenous Racism Experiences

instrument; SDQ = Strengths and Difficulties Questionnaire; PSOC = Parenting Sense of Competence.

From the mothers who participated at T1, 63 (28.3%) were not reachable at T2 follow-up or did not provide completed responses for the exposure, mediator and outcome variables. Therefore, 160 mothers provided complete responses for the exposure, mediator and outcome variables and were included in the analytic sample. There was complete demographic information on 160 mothers, except for seven mothers (4.4%) who did not provide their date of birth. It appeared that, compared to mothers in the complete case sample, mothers from the response sample who were lost at follow-up had negligible differences on demographic or substantive variables. Therefore, no meaningful biases are expected due to attrition in the study results.

The demographic characteristics based on mothers' experiences of racial discrimination in the complete case sample is shown in Table 2.

Table 2

Demographic characteristics and assessment scores of the complete sample by experiences of racism using the Measure of Indigenous Racism Experiences instrument (MIRE).

Variable	No experiences of racism (<i>n</i> = 82)		Experienced racism (<i>n</i> = 78)	
	<i>n</i>	% and/or <i>M (SD)</i>	<i>n</i>	% and/or <i>M (SD)</i>
Level of education				
No schooling	1	1.2	2	2.6
High school or less	52	63.4	56	71.8
Trade or TAFE	22	26.8	14	18.0
University	7	8.5	6	7.7
Mother's age	78	24.3 (5.3) ^a	75	24.3 (5.4) ^b
IRSAD				
1 (most advantaged)	35	42.7	31	39.7
2	18	22.0	20	25.6
3	23	28.1	23	29.5
4 or 5 (most disadvantaged)	6	7.3	4	5.1
SDQ total score				
	82	13.3 (4.6)	78	13.9 (4.5)
Normal	65	79.3 9.2 (4.2)	60	76.9 9.3 (3.7)
Abnormal	17	20.7 20.9 (4.0)	18	23.1 20.2 (3.7)
PSOC total score				
	82	76.0 (12.4)	78	76.1 (12.5)
Normal PSOC	51	62.2 83.7 (9.0)	51	65.4 83.2 (8.8)
Low PSOC	31	37.8 63.5 (4.4)	27	34.6 62.6 (5.3)

Note. *M* = Mean; *SD* = Standard deviation; IRSAD = Index of Relative Socio-economic Advantage and Disadvantage; SDQ = Strengths and Difficulties Questionnaire; PSOC = Parenting Sense of Competence.

^a Four missing responses

^b Three missing responses

Except for education, the pattern of participant demographics is approximately equal between mothers who did and did not experience racism. Compared to mothers who did not experience racism, mothers who did experience racism less frequently completed tertiary education (i.e., Trade/TAFE or University). There was also a higher proportion of children falling within the abnormal socio-emotional difficulty range if their mother had experienced racism. Interestingly, a slightly higher proportion of mothers who had experienced racism had reported parenting competence that fell within the normal range. However, their average score was smaller than the mothers who did not experience racism.

Table 3 shows the results of a single mediation analysis while controlling for the confounders of mothers age, level of education, and the IRSAD at T1.

Table 3

Single mediation analysis

Effect	Interpretation	<i>OR</i>	95% CI
E (Y1M1/Y0M0)	Total causal effect	1.24	[0.53, 2.93]
E (Y1M1/Y0M1)	Direct effect not through mediator (PSOC)	1.28	[0.55, 2.98]
E (Y1M1/Y1M1)	Indirect effect through mediator (PSOC)	0.97	[0.83, 1.12]

Note. *OR* = Odds ratio; CI = Confidence interval; PSOC = Parenting Sense of Competence.

The sample size for each combination of the exposure, mediator and outcome was assessed and deemed to represent sufficient sample sizes, considering the limitations in

recruiting Australian Indigenous participants (Fox et al., 2010; Mhurchu et al., 2009). The total causal effect indicates that maternal experiences of racism (A) increased 24% the odds of children's socio-emotional problems (O). The direct effect indicated that maternal experiences of racism (A) increased 28% the odds of children's socio-emotional problems (O) without being mediated by parenting sense of competence. The indirect effect indicates the proportion of the effect between maternal experiences of racism (A) and children's socio-emotional well-being (O) that is mediated by parenting sense of competence (M). As the indirect effect was not substantive, parenting sense of competence (M) did not mediate the effect between maternal experiences of racism (A) and children's socio-emotional well-being (O). In summary, the results indicate that while maternal experiences of racism had a negative effect on their children's socio-emotional well-being, this effect was not mediated by parenting sense of competence.

A post hoc analysis was conducted to determine the effect of parenting sense of competence on children's socio-emotional well-being. Parents who had a high sense of competence had a 66% decreased odds of their children experiencing socio-emotional problems, 95% CI [0.19, 1.06]. Therefore, parenting sense of competence effected children's socio-emotional well-being but did not mediate the effect of maternal experiences of racism on children's socio-emotional well-being.

Discussion

Due to the intergenerational nature of racism, systemic health disparities resulting from racism, have been an enduring experience for Aboriginal Australians. These experiences are often categorised and measured as direct experiences of racism, although the substantial effect of indirect exposure to racism occurring before a child is even born and accumulating throughout life, indicates that these representations may under-represent the total effect of experiences of racism. In the present study, we explored the effect of

Aboriginal mother's experiences of racism on parenting sense of competence and children's socio-emotional well-being. Despite attempts of reform in Australia to address racial inequalities, the results suggest that racism was a common experience for Aboriginal women in the present study, with almost half of all mothers surveyed reporting recent experiences of racism.

We firstly hypothesised that children with Aboriginal mothers who had experienced higher levels of racial discrimination would have increased socio-emotional difficulties compared to mothers that perceived lower levels of discrimination. In support of this hypothesis, there was a direct effect between mothers who had experienced racism and their child being at an increased risk of socio-emotional well-being problems. The increase in risk is consistent with existing studies of vicarious racism in Aboriginal populations (Cave et al., 2019; Shepherd et al., 2017), and more broadly, supports the intergenerational nature of racism observed cross-nationally (Anderson et al., 2015; Bécaries et al., 2015; McNeil et al., 2014; Park et al., 2018; Tran, 2014; Zeiders et al., 2016). As a novel finding to the literature, this study indicates that mothers' experiences of racism during pregnancy, have an effect on their child's socio-emotional difficulties at age five years.

Relatively little is known about the pathway from parents' experience of racism to children's socio-emotional well-being. Previous research has supported that vicarious racism impacts children's socio-emotional well-being through maternal mental health and there is some evidence that racism may also impact children's socio-emotional well-being through effects on parenting practices (Bécaries et al., 2015; Brody et al., 2008; McNeil et al., 2014; Priest et al., 2012; Simons et al., 2002; Tran, 2014). Our second hypothesis was not supported as parenting competence did not mediate the relationship between maternal racism and children's socio-emotional well-being. PSOC does have a mediating role in the association between a mother's environment and their relationship with their child, and similar to

parenting practices, PSOC measures attributes that contribute to the parent-child relationship (Teti & Gelfand, 1991). Distinctively, however, parenting practices focuses on the actions and interactions between parent and child whereas PSOC has a more cognitive-orientated focus, measuring a parent's sense of efficacy and satisfaction with parenting. There are two possible explanations for the non-substantive effect observed in the present study. Firstly, it is possible that PSOC was not associated with children's socio-emotional well-being in this sample. However, post hoc analysis provided support that mothers with a higher sense of parenting competence were less likely to have children with socio-emotional problems in the current study, consistent with previous findings (De Haan et al., 2009; Dumka et al., 2010). Secondly, it is possible that parenting sense of competence does not mediate the effect and that the direct effect of racism in pregnancy on children's later socio-emotional well-being is instead, an important target for intervention. It is possible that racism is a relatively stable experience over time, and as such, the experience of racism during pregnancy is a good indicator of the indirect/vicarious racism a child will experience in early life, and then the direct racism they experience as they age. The effect of racism on socio-emotional well-being occurred independently of social disadvantage and demographic factors as mother's SES education and age was controlled for, indicating that the observed effect may be the result of ongoing experiences of racism. In contrast to this hypothesis, Shepherd et al. (2017) found that of the primary caregivers who had experienced racism (measured when their child was aged between six months and five years), only 31% also experienced racism approximately three years later. Therefore, racism appeared to be a predominantly time-limited rather than persistent experience. However, this study measured racism by asking a single question directed at assessing participants total experiences of racism whereas the current study employed a validated measure of racism that assessed experiences of racism across 10 settings. This selection was made based on findings that the proportion of participants who

experienced racism varied in a single versus multi-level response, which indicated that providing explicit settings prompted participants recall (Paradies & Cunningham, 2008). Therefore, a different pattern of results is expected if participants were prompted. To investigate this further, future research could explore racial discrimination during pregnancy and whether ongoing maternal experiences of racism and children's experiences of direct racism, mediates the effect between pre-term racism and children's socio-emotional well-being.

Constraints on Generality

The present study was conducted in a relatively large longitudinal study of Aboriginal Australians. Being one of the first studies within Aboriginal populations to explore pre-term experiences of racism, it adds important information to the literature conceptualising the intergenerational nature of racism. Although this study extended on previous research, the results should be interpreted considering some limitations. Firstly, although the sample size was adequate, a larger sample size would allow for a more precise estimation of casual effects. However, due to methodological difficulties of recruiting and retaining Aboriginal Australian participants, this research is still considered respectively large (Fox et al., 2010; Mhurchu et al., 2009). Secondly, as racism can potentially effect maternal mental health difficulties and children's socio-emotional well-being, maternal mental health likely represents an exposure-induced mediator-outcome confounder (Bécares et al., 2015; Knoche et al., 2007; Takács et al., 2019). In the presence of an exposure-induced mediator-outcome confounder (such as maternal mental health), even when the exposure-induced mediator-outcome confounder is measured (which was not the case in our study), the natural direct and indirect effects are not identified and the estimate parameters are potentially biased. Future studies examining whether the effects of maternal experiences of racism on children's mental health outcomes is mediated by parenting sense of competence should aim to measure

maternal mental health and use available techniques to accounting for this exposure-induced mediator-outcome confounder (Vanderweele et al., 2014). Thirdly, dichotomised categorisation of the variables can lead to well-known problems such as underestimation of the variability within each group (Altman & Royston, 2006). In particular, the lack of empirical validation for a PSOC cutpoint score resulted in a percentage approach imposed to distinguish low from normal parenting sense of competence. Therefore, the minimal discrepancy between individuals falling near the cutpoint is exaggerated, and the pattern of results may alter if analysed in a continuous state (Sauerbrei & Royston, 2010). However, we conducted dichotomisation based on a “risk factor” approach, aimed at identifying individuals with the highest risk (Farrington & Loeber, 2000).

Implications for Practice

Although Ford et al. (2013) proposed that younger children were not cognitively and socially developed to perceive and process racism, our evidence indicated that they are not immune to the transmitting effects that may be impacting their environment. Adversity has been shown to disrupt development, attachment and learning in early childhood, with continuing effects observed throughout the lifespan (Black et al., 2017). Therefore, early intervention in supporting mothers is a critical target point as experiences of racism in pregnancy, in this study, were found to have long lasting effects on Aboriginal children’s socio-emotional well-being. We encourage future research to further examine the pathways in which racism is transmitted to assist in identifying areas for targeted intervention that may buffer the transmitting effects of racism. Importantly, the results of this article provide an advocacy for the provision of interventions targeting racism more broadly. Population-level interventions focusing on anti-racism strategies have already provided an initial positive indication for the effectiveness of reducing prejudice and improving culturally respectable practices (for reviews, see Durey, 2010; Paradies, 2005; Pedersen et al., 2005).

Conclusion

The results of this article contribute to the extensive literature highlighting the importance of reducing experiences of racism. Racism does not cause a single, individual effect, but rather the effects of racism cascade across generations causing harm to each new generation of children. Concerningly, the socio-emotional well-being effects of racism experienced by Aboriginal Australians were observed in children as young as five years in the present study. Our research did not indicate that maternal sense of parenting competence mediated the effect between racism and children's socio-emotional well-being. In consideration of the enduring impact of racism on socio-emotional well-being inequalities among Aboriginal Australians, addressing racism at a population level should continually be emphasised in policies and interventions.

References

- Ahun, M. N., Consoli, A., Pingault, J.-B., Falissard, B., Battaglia, M., Boivin, M., Tremblay, R. E., & Côté, S. M. (2018). Maternal depression symptoms and internalising problems in the offspring: the role of maternal and family factors. *European Child & Adolescent Psychiatry*, 27(7), 921-932. <https://doi.org/10.1007/s00787-017-1096-6>
- Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child: Care, Health and Development*, 45(3), 333-363. <https://doi.org/10.1111/cch.12661>
- Altman, D. G., & Royston, P. (2006). The cost of dichotomising continuous variables. *BMJ*, 332(7549), 1080. <https://doi.org/10.1136/bmj.332.7549.1080>
- American Psychological Association (APA) Working Group on Stress and Health Disparities. (2017). *Stress and health disparities: Contexts, mechanisms, and interventions among racial/ethnic minority and low-socioeconomic status populations*. <http://www.apa.org/pi/health-disparities/resources/stress-report.aspx>
- Anderson, R. E., Hussain, S. B., Wilson, M. N., Shaw, D. S., Dishion, T. J., & Williams, J. L. (2015). Pathways to Pain:Racial Discrimination and Relations Between Parental Functioning and Child Psychosocial Well-Being. *Journal of Black Psychology*, 41(6), 491-512. <https://doi.org/10.1177/0095798414548511>
- Australian Bureau of Statistics. (2011). Socio-Economic Indexes for Areas (SEIFA). *Canberra: Australian Bureau of Statistics*.
- Bécares, L., Nazroo, J., & Kelly, Y. (2015). A longitudinal examination of maternal, family, and area-level experiences of racism on children's socioemotional development: Patterns and possible explanations. *Social Science & Medicine*, 142, 128-135. <https://doi.org/https://doi.org/10.1016/j.socscimed.2015.08.025>

- Black, M. M., Walker, S. P., Fernald, L. C. H., Andersen, C. T., DiGirolamo, A. M., Lu, C., McCoy, D. C., Fink, G., Shawar, Y. R., Shiffman, J., Devercelli, A. E., Wodon, Q. T., Vargas-Barón, E., & Grantham-McGregor, S. (2017). Early childhood development coming of age: science through the life course. *The Lancet*, *389*(10064), 77-90.
[https://doi.org/https://doi.org/10.1016/S0140-6736\(16\)31389-7](https://doi.org/https://doi.org/10.1016/S0140-6736(16)31389-7)
- Brody, G. H., Chen, Y.-F., Kogan, S. M., Murry, V. M., Logan, P., & Luo, Z. (2008). Linking Perceived Discrimination to Longitudinal Changes in African American Mothers' Parenting Practices. *Journal of Marriage and Family*, *70*(2), 319-331.
<https://doi.org/https://doi.org/10.1111/j.1741-3737.2008.00484.x>
- Bronfenbrenner, U. (1979). The ecology of human development. *Harvard University Press, Cambridge, Mass.*
- Caughy, M. O. B., O'Campo, P. J., & Muntaner, C. (2004). Experiences of Racism Among African American Parents and the Mental Health of Their Preschool-Aged Children. *American Journal of Public Health*, *94*(12), 2118-2124.
<https://doi.org/10.2105/ajph.94.12.2118>
- Cave, L., Cooper, M. N., Zubrick, S. R., & Shepherd, C. C. J. (2019). 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*(1), 142. <https://doi.org/10.1186/s12939-019-1045-8>
- Cave, L., Shepherd, C., Cooper, M., & Zubrick, S. (2018). Prevalence of racial discrimination in a cohort of Aboriginal and Torres Strait Islander children.
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *Am Psychol*, *54*(10), 805-816.
<https://doi.org/10.1037//0003-066x.54.10.805>

- Collins, J. W., Jr., David, R. J., Handler, A., Wall, S., & Andes, S. (2004). Very low birthweight in African American infants: the role of maternal exposure to interpersonal racial discrimination. *American Journal of Public Health, 94*(12), 2132-2138. <https://doi.org/10.2105/ajph.94.12.2132>
- Cronholm, P. F., Forke, C. M., Wade, R., Bair-Merritt, M. H., Davis, M., Harkins-Schwarz, M., Pachter, L. M., & Fein, J. A. (2015). Adverse Childhood Experiences: Expanding the Concept of Adversity. *American Journal of Preventive Medicine, 49*(3), 354-361. <https://doi.org/https://doi.org/10.1016/j.amepre.2015.02.001>
- De Haan, A. D., Prinzie, P., & Deković, M. (2009). Mothers' and fathers' personality and parenting: The mediating role of sense of competence. *Developmental psychology, 45*(6), 1695.
- Dickson, M., Gregg, P., & Robinson, H. (2016). Early, Late or Never? When Does Parental Education Impact Child Outcomes? *The Economic Journal, 126*(596), F184-F231. <https://doi.org/https://doi.org/10.1111/ecoj.12356>
- Dole, N., Savitz, D. A., Hertz-Picciotto, I., Siega-Riz, A. M., McMahon, M. J., & Buekens, P. (2003). Maternal Stress and Preterm Birth. *American Journal of Epidemiology, 157*(1), 14-24. <https://doi.org/10.1093/aje/kwfl76>
- Dumka, L. E., Gonzales, N. A., Wheeler, L. A., & Millsap, R. E. (2010). Parenting self-efficacy and parenting practices over time in Mexican American families. *Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43), 24*(5), 522-531. <https://doi.org/10.1037/a0020833>
- Durey, A. (2010). Reducing racism in Aboriginal health care in Australia: where does cultural education fit? *Australian and New Zealand Journal of Public Health, 34*(s1), S87-S92. <https://doi.org/https://doi.org/10.1111/j.1753-6405.2010.00560.x>

- Elias, A., & Paradies, Y. (2016). Estimating the mental health costs of racial discrimination. *BMC Public Health*, 16(1), 1205. <https://doi.org/10.1186/s12889-016-3868-1>
- English, D., Lambert, S. F., Evans, M. K., & Zonderman, A. B. (2014). Neighborhood Racial Composition, Racial Discrimination, and Depressive Symptoms in African Americans. *American Journal of Community Psychology*, 54(3), 219-228. <https://doi.org/10.1007/s10464-014-9666-y>
- Evans, G. W., & Kim, P. (2013). Childhood Poverty, Chronic Stress, Self-Regulation, and Coping. *Child Development Perspectives*, 7(1), 43-48. <https://doi.org/https://doi.org/10.1111/cdep.12013>
- Farrington, D. P., & Loeber, R. (2000). Some benefits of dichotomization in psychiatric and criminological research. *Criminal Behaviour and Mental Health*, 10(2), 100-122. <https://doi.org/https://doi.org/10.1002/cbm.349>
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258. [https://doi.org/https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/https://doi.org/10.1016/S0749-3797(98)00017-8)
- Ford, K. R., Hurd, N. M., Jagers, R. J., & Sellers, R. M. (2013). Caregiver Experiences of Discrimination and African American Adolescents' Psychological Health Over Time. *Child Development*, 84(2), 485-499. <https://doi.org/https://doi.org/10.1111/j.1467-8624.2012.01864.x>
- Fox, S., Arnold, A.-L., Dunn, R., Keeffe, J., & Taylor, H. (2010). Sampling and recruitment methodology for a national eye health survey of Indigenous Australians. *Australian and New Zealand Journal of Public Health*, 34(6), 554-562. <https://doi.org/10.1111/j.1753-6405.2010.00635.x>

- Gibbons, F. X., Gerrard, M., Cleveland, M. J., Wills, T. A., & Brody, G. (2004). Perceived Discrimination and Substance Use in African American Parents and Their Children: A Panel Study. *Journal of Personality and Social Psychology, 86*(4), 517-529.
<https://doi.org/10.1037/0022-3514.86.4.517>
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry, 38*(5), 581-586.
<https://doi.org/https://doi.org/10.1111/j.1469-7610.1997.tb01545.x>
- Goodman, R. (2001). Psychometric Properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(11), 1337-1345. <https://doi.org/https://doi.org/10.1097/00004583-200111000-00015>
- Graham, J. W. (2009). Missing Data Analysis: Making It Work in the Real World. *Annual Review of Psychology, 60*(1), 549-576.
<https://doi.org/10.1146/annurev.psych.58.110405.085530>
- Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: implications for the well-being of people of color. *Am J Orthopsychiatry, 70*(1), 42-57. <https://doi.org/10.1037/h0087722>
- Heard-Garris, N. J., Cale, M., Camaj, L., Hamati, M. C., & Dominguez, T. P. (2018). Transmitting Trauma: A systematic review of vicarious racism and child health. *Social Science & Medicine, 199*, 230-240.
<https://doi.org/https://doi.org/10.1016/j.socscimed.2017.04.018>
- Irwin, L. G., Siddiqi, A., & Hertzman, C. (2007). Early childhood development: A powerful equalizer: Final Report. *World Health Organization. Final Report for the World Health Organization's Commission on the Social Determinants of Health. Available at http://www.who.int/social_determinants/resources/ecd_kn_report_07_2007.pdf.*

- Jamieson, L. M., Hedges, J., Ju, X., Kapellas, K., Leane, C., Haag, D. G., Santiago, P. R., Macedo, D. M., Roberts, R. M., & Smithers, L. G. (2021). Cohort profile: South Australian Aboriginal Birth Cohort (SAABC)—a prospective longitudinal birth cohort. *BMJ Open*, *11*(2), e043559. <https://doi.org/10.1136/bmjopen-2020-043559>
- Johnston, C., & Mash, E. J. (1989). A Measure of Parenting Satisfaction and Efficacy. *Journal of Clinical Child Psychology*, *18*(2), 167-175. https://doi.org/10.1207/s15374424jccp1802_8
- Jones, J. M. (1997). *Prejudice and racism*. McGraw-Hill Humanities, Social Sciences & World Languages.
- Khan, S., Bettiol, S., Kent, K., Peres, M. A., Barnett, T., Crocombe, L. A., & Mittinty, M. (2021). Association between obesity and periodontitis in Australian adults: A single mediation analysis. *Journal of Periodontology*, *92*(4), 514-523. <https://doi.org/https://doi.org/10.1002/JPER.20-0044>
- Knoche, L. L., Givens, J. E., & Sheridan, S. M. (2007). Risk and protective factors for children of adolescents: Maternal depression and parental sense of competence. *Journal of Child and Family Studies*, *16*(5), 684-695.
- Macedo, D. M., Smithers, L. G., Roberts, R. M., Paradies, Y., & Jamieson, L. M. (2019). Effects of racism on the socio-emotional wellbeing of Aboriginal Australian children. *International Journal for Equity in Health*, *18*(1), 132. <https://doi.org/10.1186/s12939-019-1036-9>
- McCain, M., Mustard, J., & Shanker, S. (2007). *Early years study 2: putting science into action*. Council for Early Child Development.
- McNeil, S., Harris-McKoy, D., Brantley, C., Fincham, F., & Beach, S. R. H. (2014). Middle class African American mothers' depressive symptoms mediate perceived

- discrimination and reported child externalizing behaviors. *Journal of Child and Family Studies*, 23(2), 381-388. <https://doi.org/10.1007/s10826-013-9788-0>
- Merrick, J., Chong, A., Parker, E., Roberts-Thomson, K., Misan, G., Spencer, J., Broughton, J., Lawrence, H., & Jamieson, L. (2012). Reducing disease burden and health inequalities arising from chronic disease among Indigenous children: an early childhood caries intervention. *BMC Public Health*, 12(1), 323. <https://doi.org/10.1186/1471-2458-12-323>
- Mhurchu, C. N., Blakely, T., Funaki-Tahifote, M., McKerchar, C., Wilton, J., Chua, S., & Jiang, Y. (2009). Inclusion of indigenous and ethnic minority populations in intervention trials: challenges and strategies in a New Zealand supermarket study. *Journal of Epidemiology and Community Health*, 63(10), 850-855. <https://doi.org/10.1136/jech.2008.081109>
- Mulder, E. J. H., Robles de Medina, P. G., Huizink, A. C., Van den Bergh, B. R. H., Buitelaar, J. K., & Visser, G. H. A. (2002). Prenatal maternal stress: effects on pregnancy and the (unborn) child. *Early Human Development*, 70(1), 3-14. [https://doi.org/https://doi.org/10.1016/S0378-3782\(02\)00075-0](https://doi.org/https://doi.org/10.1016/S0378-3782(02)00075-0)
- National Health Medical Research Council. (2003). *Values and ethics: Guidelines for ethical conduct in Aboriginal and Torres Strait Islander health research*. The Council.
- Neblett, W. E. (2019). Racism and health: Challenges and future directions in behavioral and psychological research. *Cultural Diversity and Ethnic Minority Psychology*, 25(1), 12-20. <https://doi.org/10.1037/cdp0000253>
- Paradies, Y. (2005). Anti-Racism and Indigenous Australians. *Analyses of Social Issues and Public Policy*, 5(1), 1-28. <https://doi.org/https://doi.org/10.1111/j.1530-2415.2005.00053.x>

- Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., Gupta, A., Kelaher, M., & Gee, G. (2015). Racism as a Determinant of Health: A Systematic Review and Meta-Analysis. *PloS one*, *10*(9), e0138511-e0138511.
<https://doi.org/10.1371/journal.pone.0138511>
- Paradies, Y. C., & Cunningham, J. (2008). Development and validation of the Measure of Indigenous Racism Experiences (MIRE). *International Journal for Equity in Health*, *7*(1), 9. <https://doi.org/10.1186/1475-9276-7-9>
- Park, I. J. K., Du, H., Wang, L., Williams, D. R., & Alegría, M. (2018). Racial/Ethnic Discrimination and Mental Health in Mexican-Origin Youths and Their Parents: Testing the “Linked Lives” Hypothesis. *Journal of Adolescent Health*, *62*(4), 480-487.
<https://doi.org/https://doi.org/10.1016/j.jadohealth.2017.10.010>
- Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological Bulletin*, *135*(4), 531.
- Pedersen, A., Walker, I., & Wise, M. (2005). "Talk does not cook rice": Beyond anti-racism rhetoric to strategies for social action. *Australian Psychologist*, *40*(1), 20-31.
<https://doi.org/10.1080/0005006051233131729>
- Priest, N., Paradies, Y., Gunthorpe, W., Cairney, S., & Sayers, S. (2011). Racism as a determinant of social and emotional wellbeing for Aboriginal Australian youth. *The Medical journal of Australia*, *194*(10), 546-550. <https://doi.org/10.5694/j.1326-5377.2011.tb03099.x>
- Priest, N., Paradies, Y., Stevens, M., & Bailie, R. (2012). Exploring relationships between racism, housing and child illness in remote indigenous communities. *Journal of Epidemiology and Community Health*, *66*(5), 440-447.
<https://doi.org/10.1136/jech.2010.117366>

- Priest, N., Perry, R., Ferdinand, A., Kelaher, M., & Paradies, Y. (2017). Effects over time of self-reported direct and vicarious racial discrimination on depressive symptoms and loneliness among Australian school students. *BMC Psychiatry, 17*(1), 50.
<https://doi.org/10.1186/s12888-017-1216-3>
- Sauerbrei, W., & Royston, P. (2010). Continuous variables: To categorize or to model? The 8th International Conference on Teaching Statistics—Data and Context in statistics education: Towards an evidence based society. International Statistical Institute, Voorburg,
- Shepherd, C. C. J., 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), 116. <https://doi.org/10.1186/s12939-017-0612-0>
- Simons, R. L., Murry, V., McLoyd, V., Lin, K.-H., Cutrona, C., & Conger, R. D. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology, 14*(2), 371-393. <https://doi.org/10.1017/S0954579402002109>
- Stevenson, H. C. (1995). Relationship of Adolescent Perceptions of Racial Socialization to Racial Identity. *Journal of Black Psychology, 21*(1), 49-70.
<https://doi.org/10.1177/00957984950211005>
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons.
- Takács, L., Smolík, F., & Putnam, S. (2019). Assessing longitudinal pathways between maternal depressive symptoms, parenting self-esteem and infant temperament. *PloS one, 14*(8), e0220633. <https://doi.org/10.1371/journal.pone.0220633>

- Teti, D. M., & Gelfand, D. M. (1991). Behavioral Competence among Mothers of Infants in the First Year: The Mediation Role of Maternal Self-Efficacy. *Child Development*, 62(5), 918-929. <https://doi.org/https://doi.org/10.1111/j.1467-8624.1991.tb01580.x>
- Tran, A. G. T. T. (2014). Family Contexts: Parental Experiences of Discrimination and Child Mental Health. *American Journal of Community Psychology*, 53(1), 37-46. <https://doi.org/10.1007/s10464-013-9607-1>
- Vanderweele, T. J., Vansteelandt, S., & Robins, J. M. (2014). Effect decomposition in the presence of an exposure-induced mediator-outcome confounder. *Epidemiology (Cambridge, Mass.)*, 25(2), 300-306. <https://doi.org/10.1097/EDE.0000000000000034>
- Wade, R., Shea, J. A., Rubin, D., & Wood, J. (2014). Adverse Childhood Experiences of Low-Income Urban Youth. *Pediatrics*, 134(1), e13-e20. <https://doi.org/10.1542/peds.2013-2475>
- Williams, D. R., Lawrence, J. A., & Davis, B. A. (2019). Racism and Health: Evidence and Needed Research. *Annual Review of Public Health*, 40(1), 105-125. <https://doi.org/10.1146/annurev-publhealth-040218-043750>
- Williamson, A., McElduff, P., Dadds, M., D' Este, C., Redman, S., Raphael, B., Daniels, J., & Eades, S. (2014). The Construct Validity of the Strengths and Difficulties Questionnaire for Aboriginal Children Living in Urban New South Wales, Australia. *Australian Psychologist*, 49(3), 163-170. <https://doi.org/10.1111/ap.12045>
- Zeiders, K. H., Umaña-Taylor, A. J., Jahromi, L. B., Updegraff, K. A., & White, R. M. B. (2016). Discrimination and Acculturation Stress: A Longitudinal Study of Children's Well-Being from Prenatal Development to 5 Years of Age. *Journal of developmental and behavioral pediatrics : JDBP*, 37(7), 557-564. <https://doi.org/10.1097/DBP.0000000000000321>

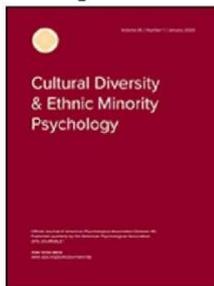
Zubrick, S., Lawrence, D., De Maio, J., & Biddle, N. (2006). Testing the reliability of a measure of Aboriginal children's mental health: an analysis based on the Western Australian Aboriginal Child Health Survey.

Appendix A – Instructions to Authors



AMERICAN PSYCHOLOGICAL ASSOCIATION

Cultural Diversity & Ethnic Minority Psychology



SUBMIT TO JOURNAL

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Editor: Su Yeong Kim

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Journal scope statement

Cultural Diversity & Ethnic Minority Psychology[®] seeks to advance the psychological science of culture, ethnicity, and race through the publication of empirical research, as well as theoretical, conceptual, and integrative review articles that will stimulate further empirical research, on basic and applied psychological issues relevant to racial and ethnic groups that have been historically subordinated, underrepresented, or underserved.

Especially welcome are articles that

- Contribute to the psychological understanding of issues related to culture, race, and ethnicity through theory-driven or community-driven research. These issues may include (but are not limited to) developmental processes, family relationships, intergroup relations, mental health and well-being, disparities in mental health, health, and education/employment, and treatment and intervention;
- Involve new, innovative or underutilized research and statistical methods and paradigms. These approaches may include development or cultural adaptation of psychological measures, laboratory experiments, community-based participatory research, meta-analyses, mixed-methods and qualitative, longitudinal, cross-national, and biological and genetic approaches.
- Apply psychological science to the education and training of psychologists in matters regarding persons from diverse cultural, racial, and ethnic backgrounds, including delivery of evidence-based interventions to racial and ethnic groups that have been underrepresented and underserved; and
- Critique and promote better science, public policy and service delivery through appropriate application of psychological theory and research on culture, ethnicity, and race. These articles may involve new theory or conceptualization and integrative reviews.

(Formerly *Cultural Diversity and Mental Health*)

 Subscribe to the RSS feed for *Cultural Diversity & Ethnic Minority Psychology*
(<http://content.apa.org/journals/cdp.rss>)

Journal highlights

Upcoming special issues

- [Collaborative and participatory research to promote engagement, empowerment, and resilience for immigrant and refugee youth, families, and communities \(/pubs/journals/cdp/call-for-papers-immigrant\)](#)
- [Innovative theory and methods for the next generation of diversity and inclusion sciences \(/pubs/journals/cdp/call-for-papers-diversity-inclusion\)](#)

Editor Spotlight

- [Read an interview with Editor Su Yeong Kim, PhD \(/pubs/highlights/editor-spotlight/cdp-kim\)](#)

From APA Journals Article Spotlight[®]

- [Why are interracial interactions so hard? “Learning goals” open the door to more positive relations \(/pubs/highlights/spotlight/issue-222\)](#)

- [How do young adult immigrants engage civically? What role does social connection play? \(/pubs/highlights/spotlight/issue-218\)](/pubs/highlights/spotlight/issue-218)
- [Moving away from using ethnicity as a proxy for cultural values \(/pubs/highlights/spotlight/issue-204\)](/pubs/highlights/spotlight/issue-204)
- [New ways of measuring "The Talk": Considering racial socialization quality and quantity \(/pubs/highlights/spotlight/issue-203\)](/pubs/highlights/spotlight/issue-203)
- [Can strongly identifying with both ethnic and national cultures protect immigrants from hostile social contexts? \(/pubs/highlights/spotlight/issue-184\)](/pubs/highlights/spotlight/issue-184)
- [Perceived underemployment among African American parents: What are the implications for couples' relationships? \(/pubs/highlights/spotlight/issue-173\)](/pubs/highlights/spotlight/issue-173)
- [Does cultural revitalization impact academic attainment and healthy living? \(/pubs/highlights/spotlight/issue-165\)](/pubs/highlights/spotlight/issue-165)
- [Racial / Ethnic differences in caregivers' perceptions of the need for and utilization of adolescent psychological counseling and support services \(/pubs/highlights/spotlight/issue-150\)](/pubs/highlights/spotlight/issue-150)
- [Proud to be Mexican: Ethnic identity may buffer against depression in Mexican-origin mothers \(/pubs/highlights/spotlight/issue-139\)](/pubs/highlights/spotlight/issue-139)

Submission Guidelines

Prior to submission, please carefully read and follow the submission guidelines detailed below. Manuscripts that do not conform to the submission guidelines may be returned without review.

[Frequently Asked Questions for *Cultural Diversity & Ethnic Minority Psychology* \(/pubs/journals/cdp/faqs\)](/pubs/journals/cdp/faqs)

Submission

Please submit manuscripts electronically through the Manuscript Submission Portal in Microsoft Word or Open Office format.

Prepare manuscripts according to the *Publication Manual of the American Psychological Association* using the 7th edition. Manuscripts may be copyedited for bias-free language (see Chapter 5 of the *Publication Manual*). [APA Style and Grammar Guidelines \(https://apastyle.apa.org/style-grammar-guidelines?_ga=2.108621957.62505448.1611587229-1146984327.1584032077&_gac=1.60264799.1610575983.Cj0KCQiA0fr_BRDaARIsAABw4EvuRpQd5ff159C0LIBvKtJUIeEjI7uMbrD1RjJULX63J2Qc1bJoElAsdnEALw_wcB\)](https://apastyle.apa.org/style-grammar-guidelines?_ga=2.108621957.62505448.1611587229-1146984327.1584032077&_gac=1.60264799.1610575983.Cj0KCQiA0fr_BRDaARIsAABw4EvuRpQd5ff159C0LIBvKtJUIeEjI7uMbrD1RjJULX63J2Qc1bJoElAsdnEALw_wcB) for the 7th edition are available.

SUBMIT MANUSCRIPT (HTTPS://WWW.EDITORIALMANAGER.COM/CDP/DEFAULT.ASPX)

General correspondence may be directed to the editor's office (<mailto:sykim@prc.utexas.edu>).

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Especially welcome are articles that:

- Contribute to the psychological understanding of issues related to culture, race, and ethnicity through theory-driven or community-driven research. These issues may include (but are not limited to) developmental processes, family relationships, intergroup relations, mental health and well-being, disparities in mental health, health, and education/employment, and treatment and intervention;
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- Critique and promote better science, public policy and service delivery through appropriate application of psychological theory and research on culture, ethnicity, and race. These articles may involve new theory or conceptualization and integrative reviews.

Cultural Diversity & Ethnic Minority Psychology is now using a software system to screen submitted content for similarity with other published content. The system compares the initial version of each submitted manuscript against a database of 50+ million scholarly documents, as well as content appearing on the open web. This allows APA to check submissions for potential overlap with material previously published in scholarly journals (e.g., lifted or republished material).

Types of articles

Multi-study papers

Multi-study reports involve quantitative and qualitative research with 2 or more studies using different samples. Multi-study papers are more integrative in nature and provide a strong theoretical and empirical contribution to the literature. Manuscripts are limited to 10,000 words of text, including abstract, though shorter manuscripts are strongly encouraged. The word limit does not include reference pages, tables, and figures. Manuscript longer than 10,000 words need to be approved by the editor prior to submission and must make a truly outstanding contribution.

Single-study reports

Single-study reports of quantitative and qualitative research are between 4,000 and 6,000 words of text (including abstract). The word limit does not include reference pages, tables, and figures. Theoretical, conceptual, and integrative review manuscripts also must adhere to this word limit.

Brief Reports

Brief Reports are between 2,000 and 3,000 words of text (including abstract). The word limit does not include reference pages, tables, and figures.

Submissions involving pilot data findings, replication of published study findings, psychometric investigations of culture-specific measures, or substantial cultural adaptation of existing measures are most suitable for brief reports. Mere translation and validation of existing psychological measures that are not culture-specific are not appropriate for the journal.

Registered Reports

In addition to full-length research papers reporting novel findings, the journal publishes registered reports, negative findings, replications, commentaries and reviews. Preregistration of replication studies is strongly recommended, but not required.

Registered Reports require a two-step review process. The first step is the submission of the registration manuscript. This is a partial manuscript that includes hypotheses, rationale for the study, experimental design, and methods. The partial manuscript will be reviewed for significance and methodological approach.

If the partial manuscript is accepted, this amounts to provisional acceptance of the full report regardless of the outcome of the study. The full manuscript will receive rapid editorial review, for adherence to the preregistered design, and expedited production for publication in the journal.

Special issue and section protocol

Cultural Diversity & Ethnic Minority Psychology welcomes proposals for special issues or sections that address a substantive area in the psychological study of culture, ethnicity, and race.

The editorial team will collectively review and approve all proposals. An Associate Editor will serve as the action editor for all special issues/sections and work closely with the guest editor(s) of the special issue/section.

In addition, the journal editorial team (composed of the editor and associate editors) will initiate special issues and sections to address gaps in the literature. In these instances, a call for papers will be announced and widely distributed to solicit manuscripts.

Authors wishing to submit a proposal for a special issue or section should submit the following to the editor.

Proposals must include the following information in this order.

- Clearly describe the topic or theme for the special issue/section and a rationale for why the special issue/section is needed right now. Be sure to articulate how it is directly related to the advancement of the psychological study of culture, ethnicity, and race. This description should be no longer than 2 paragraphs or 1 page.
- Briefly explain whether the solicited or accepted papers will be empirical or integrative reviews. A collection of position papers is strongly discouraged unless they include empirical data or integrative reviews. Empirical papers will be given a higher priority as well. Only one commentary by a distinguished expert in the field is allowed for a special issue/section.
- Denote whether it will be a special issue or special section. Special sections (approximately 6–7 papers) are preferred, especially if contributing authors and papers are already identified.

- Specify whether the papers are still to be invited through an open call or whether it is a set of proposed papers that have already been identified. Provide a rationale for either approach.
 - a. If a call for papers, provide the actual call for papers announcement that will be distributed. Provide examples of how proposals will be solicited, reviewed, and selected.
 - b. If a set of proposed papers, provide the titles, authors, and abstracts.
 - c. If a commentary is part of the special issue/section, provide the name and affiliation of the commentator, including areas of expertise.
- Provide the name and contact of the proposed guest editor, as well as a brief description of the person's qualifications to serve in this capacity. All guest editors will work with the assigned associate editor, who will make the final editorial decisions.
- Provide a timeline for the special issue/section, including solicitation dates, submission due dates, review and revision completion deadlines, and publication target date.
- A list of potential reviewers and some information on their areas of expertise.

Peer review

Because *Cultural Diversity & Ethnic Minority Psychology* uses an anonymous peer-review process, authors' names and affiliations should appear only on the title page of the manuscript.

Style of manuscripts

When providing racial or ethnic designations, please use initial capital letters. *Webster's New World Dictionary of American English, 3rd College Edition*, is the accepted source for spelling. Define unusual abbreviations at the first mention in the text.

The text should be written in a uniform style, and its contents as submitted for consideration should be deemed by the author to be final and suitable for publication.

Please highlight all changes made in revised manuscripts in yellow.

Author contributions statements using CRediT

The APA *Publication Manual* (7th ed.) (<https://apastyle.apa.org/products/publication-manual-7th-edition>) stipulates that "authorship encompasses...not only persons who do the writing but also those who have made substantial scientific contributions to a study." In the spirit of transparency and openness, *Cultural Diversity & Ethnic Minority Psychology* has adopted the *Contributor Roles Taxonomy (CRediT)* (<http://credit.niso.org/contributor-roles-defined/>) to describe each author's individual contributions to the work. CRediT offers authors the opportunity to share an accurate and detailed description of their diverse contributions to a manuscript.

Submitting authors will be asked to identify the contributions of all authors at initial submission according to this taxonomy. If the manuscript is accepted for publication, the CRediT designations will be published as an Author Contributions Statement in the author note of the final article. All authors should have reviewed and agreed to their individual contribution(s) before submission.

CRediT includes 14 contributor roles, as described below:

- **Conceptualization:** Ideas; formulation or evolution of overarching research goals and aims.
- **Data curation:** Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use.
- **Formal analysis:** Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data.
- **Funding acquisition:** Acquisition of the financial support for the project leading to this publication.
- **Investigation:** Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.
- **Methodology:** Development or design of methodology; creation of models.
- **Project administration:** Management and coordination responsibility for the research activity planning and execution.
- **Resources:** Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.
- **Software:** Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.
- **Supervision:** Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.
- **Validation:** Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.
- **Visualization:** Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.
- **Writing — original draft:** Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).
- **Writing — review & editing:** Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision — including pre- or post-publication stages.

Authors can claim credit for more than one contributor role, and the same role can be attributed to more than one author.

Title page

The title page should contain the complete title of the manuscript, names and affiliations of all authors, institution(s) at which the work was performed, and name, address, telephone and fax numbers of the author responsible for correspondence.

Please include the word count of the text and abstract.

Authors should also provide a short title of not more than 45 characters (including spaces), and up to 5 key words, that will highlight the subject matter of the article.

Abstract and keywords

All manuscripts must include an abstract containing a maximum of 250 words typed on a separate page. For commentaries and special section/issue introductions, the abstract is limited to 150 words. For research and review articles, the abstract is limited to 250 words and the following headings are required:

- **Objectives:** Study aims or hypotheses. The abstract must begin with this heading (i.e., no sentences should precede the objectives heading)
- **Methods:** Sample description (including size, race or ethnicity, gender, average age) and research design
- **Results:** Results that pertain to study aims or hypotheses
- **Conclusions:** Implication of findings
- After the abstract, please supply up to five keywords or brief phrases. Phrases are limited to three words maximum.

Public significance statements

Authors submitting manuscripts to *Cultural Diversity & Ethnic Minority Psychology* are required to provide 2–3 brief sentences regarding the public significance of the study or meta-analysis described in their paper.

This description should be included within the manuscript on the abstract/keywords page. It should be written in language that is easily understood by both professionals and members of the lay public.

When an accepted paper is published, these sentences will be boxed beneath the abstract for easy accessibility.

All such descriptions will also be published as part of the table of contents, as well as on the journal's web page. This policy is in keeping with efforts to increase dissemination and usage by larger and diverse audiences.

Examples of these 2–3 sentences include the following:

- "It has been suggested that when people read words, they think of the images and sensations that are linked to that word. That idea was supported by the results of this study, which showed that people seemed to think of words' visual and sensory characteristics, even though they were not required to do so."
- "Different countries have different systems of math education. The basic arithmetic concepts of adults educated in China and Canada were compared. The adults

educated in China had stronger knowledge of arithmetic than did the adults educated in Canada, likely due to differences in the way math concepts are taught."

- "People tend to remember words better after reading them aloud than after reading them silently. The reasons for this production effect were examined, and results suggested that there are multiple explanations: saying words aloud seems to make them more distinctive and also seems to store them more effectively in memory."

To be maximally useful, these statements of public significance should not simply be sentences lifted directly from the manuscript. They are meant to be informative and useful to any reader. They should provide a bottom-line, take-home message that is accurate and easily understood. In addition, they should be able to be translated into media-appropriate statements for use in press releases and on social media.

Prior to final acceptance and publication, all public significance statements will be carefully reviewed to make sure they meet these standards. Authors will be expected to revise statements as necessary.

Journal Article Reporting Standards

Authors are to adhere to the APA Style Journal Article Reporting Standards (<https://apastyle.apa.org/jars>) (JARS) for quantitative, qualitative, and mixed methods (<https://apastyle.apa.org/jars>) research. Updated in 2018, the standards offer ways to improve transparency in reporting to ensure that readers have the information necessary to evaluate the quality of the research and to facilitate collaboration and replication. The new JARS:

- Recommend the division of hypotheses, analyses and conclusions into primary, secondary and exploratory groupings to allow for a full understanding of quantitative analyses presented in a manuscript and to enhance reproducibility;
- Offer modules for authors reporting on N-of-1 designs, replications, clinical trials, longitudinal studies and observational studies, as well as the analytic methods of structural equation modeling and Bayesian analysis;
- Include guidelines on reporting on registration (including making protocols public); participant characteristics, including demographic characteristics; inclusion and exclusion criteria; psychometric characteristics of outcome measures and other variables; and planned data diagnostics and analytic strategy.

JARS-Qual are of use to researchers using qualitative methods like narrative, grounded theory, phenomenological, critical, discursive, performative, ethnographic, consensual qualitative, case study, psychobiography, and thematic analysis approaches. The guidelines focus on transparency in quantitative and mixed methods reporting, recommending descriptions of how the researcher's own perspective affected the study as well as the contexts in which the research and analysis took place.

Participant description and informed consent

The method section of each empirical report must contain a detailed description of the study participants, including (but not limited to) the following:

- age
- gender

- ethnicity
- nativity or immigration history
- SES
- clinical diagnoses and comorbidities (as appropriate)
- any other relevant demographics (e.g., sexual orientation)

The method section also must include a statement describing how informed consent was obtained from the participants (or their parents/guardians) and indicate that the study was conducted in compliance with an appropriate Internal Review Board.

Manuscripts that report on clinical trials using randomized controlled trial designs must include as a figure the CONSORT flow diagram which displays the progress of all participants through the trial. Additionally, authors should follow the 25-item CONSORT checklist when writing the study methods and results. The CONSORT flow diagram and checklist are located on the [CONSORT website \(http://www.consort-statement.org/\)](http://www.consort-statement.org/).

Update: Authors must be sure to report study participant characteristics related to socioeconomic status (SES). SES demographic characteristics allow researchers and journal readers to properly contextualize and interpret research findings. We recognize that there is no standard definition or measurement criteria for SES and related indicators (e.g., social class, income, education, occupation), but authors must document SES demographic characteristics to the best extent possible in their manuscript submission. Additionally, authors are strongly encouraged to incorporate such demographics in future research studies and to take these factors into consideration when developing research questions, conducting analyses, and interpreting results.

For reference, authors are encouraged to read the following article on SES conceptualization and measurement: Diemer, M., Mistry, R., Wadsworth, M., Lopez, I., & Reimers, F. (2013). Best practices in conceptualizing and measuring social class in psychological research. *Analyses of Social Issues and Public Policy*, 13, 77-113. doi:10.1111/asap.12001.

When providing racial or ethnic designations, please follow APA's language guidelines. See the *Publication Manual of the American Psychological Association* (APA, 2001, pp. 75–76). Use initial capital letters (i.e., Black and White instead of black and white). Do not use the term Caucasian when describing Whites or people of European descent. Manuscripts using the term Caucasian will be returned without review until the correction is made. Authors are encouraged to review Thomas Teo's article, "Psychology Without Caucasians" (2009, *Canadian Psychology*, Vol. 50, pp. 91–97) for more information on the use of racial descriptors.

Constraints on generality

In a subsection of the discussion titled "Constraints on generality," authors should include a detailed discussion of the limits on generality (see [Simons, Shoda, & Lindsay, 2017 \(http://journals.sagepub.com/doi/abs/10.1177/1745691617708630\)](http://journals.sagepub.com/doi/abs/10.1177/1745691617708630)). In this section, authors should detail grounds for concluding that results are specific to characteristics of the participants and address limits on generality not only for participants but for materials, procedures, and context. They should also specify which methods the authors think could be varied without affecting the result and which should remain constant.

Measures, study design, and data analysis

The Method section of empirical reports must contain a sufficiently detailed description of the measures used so that the reader understands the item content, scoring procedures, and total scores or subscales. Evidence of reliability and validity with similar populations should be provided.

The policy of *Cultural Diversity & Ethnic Minority Psychology* is to publish papers where authors follow standards for disclosing key aspects of the research design and data analysis. Authors are encouraged to review the standards available for many research applications from <http://www.equator-network.org/> and use those that are relevant for the reported research applications.

Statistical reporting of effect size and confidence intervals

We now require that authors report means and standard deviations for all continuous study variables and the effect sizes for the primary study findings. Note that the *Publication Manual of the American Psychological Association* (APA, 2001, pp. 25–26) emphasizes the importance of reporting effect sizes in addition to the usual tests of statistical significance.

Effect sizes, or similar statistics such as "goodness-of-fit" indicators for structural equation modeling, can be generated by most statistical packages that are used in the behavioral sciences. If effect sizes are not available for a particular test, then authors should convey this in their cover letter at the time of submission.

Citations in the text

In the text, references should be cited by the name and date system. Both names are cited for a work with two authors. When a work has fewer than six authors, cite all names the first time the reference in the text appears; subsequent citations should only cite the first author's name, followed by "et al." When a work has six or more authors, cite only the first author's surname, followed by "et al." Refer to the following citation examples.

- In a similar case study, Haley (1973) utilized...
- One authority (Green, 1991) suggested...

Data citation

All data, program code and other methods must should be appropriately cited. Such materials should be recognized as original intellectual contributions and afforded recognition through citation.

- All data sets and program code used in a publication should be cited in the text and listed in the reference section.
- References for data sets and program code should include a persistent identifier, such as a Digital Object Identifier (DOI). Persistent identifiers ensure future access to unique published digital objects, such as a text or data set. Persistent identifiers are assigned to data sets by digital archives, such as institutional repositories and partners in the Data Preservation Alliance for the Social Sciences (Data-PASS).

- Data set citation example:

Alegria, M., Jackson, J. S., Kessler, R. C., & Takeuchi, D. (2016). Collaborative Psychiatric Epidemiology Surveys (CPES), 2001–2003 [Data set]. Inter-university Consortium for Political and Social Research. <http://doi.org/10.3886/ICPSR20240.v8>

References

List references in alphabetical order. Each listed reference should be cited in text, and each text citation should be listed in the references section.

Examples of basic reference formats:

Journal article

McCauley, S. M., & Christiansen, M. H. (2019). Language learning as language use: A cross-linguistic model of child language development. *Psychological Review*, *126*(1), 1–51. <https://doi.org/10.1037/rev0000126> (<https://doi.org/10.1037/rev0000126>)

Authored book

Brown, L. S. (2018). *Feminist therapy* (2nd ed.). American Psychological Association. <https://doi.org/10.1037/0000092-000> (<https://doi.org/10.1037/0000092-000>)

Chapter in an edited book

Balsam, K. F., Martell, C. R., Jones, K. P., & Safren, S. A. (2019). Affirmative cognitive behavior therapy with sexual and gender minority people. In G. Y. Iwamasa & P. A. Hays (Eds.), *Culturally responsive cognitive behavior therapy: Practice and supervision* (2nd ed., pp. 287–314). American Psychological Association. <https://doi.org/10.1037/0000119-012> (<https://doi.org/10.1037/0000119-012>)

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APA policy prohibits an author from submitting the same manuscript for concurrent consideration by two or more publications.

See also [APA Journals[®] Internet Posting Guidelines \(/pubs/journals/resources/internet-posting-guidelines\)](#).

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- For manuscripts funded by the Wellcome Trust or the Research Councils UK [Wellcome Trust or Research Councils UK Publication Rights Form \(PDF, 34KB\)](#)

[\(/pubs/authors/publication-rights-form-wellcome-rcuk.pdf\)](https://pubs/authors/publication-rights-form-wellcome-rcuk.pdf)

In addition to the publication policies applicable to all APA journal articles, *Cultural Diversity & Ethnic Minority Psychology* requires that all identifying details regarding the client(s) / patient(s), including but not limited to name, age, race, occupation, and place of residence, be altered to prevent recognition.

If a manuscript includes excerpts from transcripts of therapy sessions, you must obtain a signed release authorizing publication of the transcript from the client. Because the identity of patients may be confidential, we ask that you do not submit the signed release forms with the manuscript; you must, however, retain the signed release forms for your files.

All statements in, or omissions from, published manuscripts are the responsibility of authors, who will be asked to review proofs prior to publication.

Reprint order forms will be sent with the page proofs. No page charges will be levied against authors or their institutions for publication in the journal.

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The policy of *Cultural Diversity & Ethnic Minority Psychology* is to publish papers where authors indicate whether the data, methods used in the analysis, and materials used to conduct the research will be made available to any researcher for purposes of reproducing the results or replicating the procedure.

Authors must, in the author note and at the end of the method section, indicate whether they will or will not make their data, analytic methods, and study materials available to other researchers. If an author agrees to make materials available, the author must specify where that material will be available. If an author does not make data, methods, and materials publicly available, the authors should note their ethical or legal reasons for not doing so and are expected to abide by APA's data preservation policies, specified below under "Ethical Principles."

Authors must disclose any prior uses of data reported in the manuscript in the author note and in the cover letter, which should include a complete reference list of these articles as well as a description of the extent and nature of any overlap between the present submission and the previous work.

Authors must disclose all sources of financial support for the conduct of the research (e.g., "This research was supported by NIDA grant X"). If the funding source was involved in any other aspects of the research (e.g., study design, analysis, interpretation, writing), then clearly state the role. If the funding source had no other involvement other than financial support, then simply state that the funding source had no other role other than financial support. Also provide a conflict-of-interest statement disclosing any real or potential conflict(s) of interest, including financial, personal, or other relationships with other organizations or companies that may inappropriately impact or influence the research and interpretation of the findings. If there are no conflicts of interest, this should be clearly stated.

If the manuscript has been posted to a preprint archive, include a link to the preprint.

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All authors publishing in *Cultural Diversity & Ethnic Minority Psychology* may apply for open science badges. Introduced in 2013 by the Center for Open Science's [Open Science Framework](https://osf.io/) (<https://osf.io/>), these badges may be awarded to authors for making data or materials public or for preregistering their studies. Meant to encourage the sharing of data and materials, as well as pre-registration of studies and analysis plans, these badges are digital objects associated with journal articles and are available in four types:



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A "PA" (Protected Access) notation may be added to open data badges if sensitive, personal data are available only from an approved third-party repository that manages access to data to qualified researchers through a documented process. To be eligible for an open data badge with such a notation, the repository must publicly describe the steps necessary to obtain the data and detailed data documentation (e.g. variable names and allowed values) must be made available publicly. [View a list of approved repositories](https://osf.io/tvyxz/wiki/8.%20Approved%20Protected%20Access%20Repositories/) (<https://osf.io/tvyxz/wiki/8.%20Approved%20Protected%20Access%20Repositories/>).



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All materials necessary to reproduce the reported results that are digitally shareable, along with descriptions of non-digital materials necessary for replication, are made publicly available.



Preregistered:

At least one study's design has been preregistered with descriptions of (a) the research design and study materials, including the planned sample size; (b) the motivating research question or hypothesis; (c) the outcome variable(s); and (d) the predictor variables, including controls, covariates, and independent variables. Results must be fully disclosed. As long as they are distinguished from other results in the article, results from analyses that were not preregistered may be reported in the article.



Preregistered+Analysis Plan:

At least one study's design has been preregistered along with an analysis plan for the research — and results are recorded according to that plan.

In addition, notations may be added to badges or open practices notes to indicate, for example, that an analysis plan was registered before the observation of outcomes (DE, Data Exist) or that there were strongly justified changes to an analysis plan (TC, Transparent Changes).

For all badges, items must be made available on an open-access repository with a persistent identifier — and in a format that is time-stamped, immutable, and permanent. For the preregistered badge, this is an institutional registration system (e.g., ClinicalTrials.gov, Open Science Framework, and so on).

Data and materials must be made available under an open license allowing others to copy, share, and use the data, with attribution and copyright as applicable. At submission, authors must confirm that criteria have been fulfilled in a signed [badge disclosure form \(PDF, 33KB\) \(/pubs/authors/open-practices-disclosure-form.pdf\)](#) that must be submitted as supplemental material.

If all criteria are met as confirmed by the editor, the form will then be published with the article as supplemental material.

Authors should also note their eligibility for the badge(s) in the cover letter.

Authors must, in acknowledgments or the first footnote, indicate if they did or did not preregister the research with or without an analysis plan in an independent, institutional registry.

If an author did preregister the research with an analysis plan, the author must:

- Confirm in the text that the study was registered prior to conducting the research with links to the time-stamped preregistrations at the institutional registry, and that the preregistration adheres to the disclosure requirements of the institutional registry or those required for the preregistered badge with analysis plans maintained by the Center for Open Science.
- Report all preregistered analyses in the text, or, if there were changes in the analysis plan following preregistration, those changes must be disclosed with explanation for the changes.
- Clearly distinguish in text analyses that were preregistered from those that were not, such as having separate sections in the results for confirmatory and exploratory analyses.

Replication studies

The policy of *Cultural Diversity & Ethnic Minority Psychology* is to encourage submission of replication studies, particularly of research published in this journal.

Manuscript preparation

Review APA's [Journal Manuscript Preparation Guidelines \(/pubs/journals/resources/manuscript-submission-guidelines\)](#) before submitting your article.

If your manuscript was mask reviewed, please ensure that the final version for production includes a byline and full author note for typesetting.

APA Ethical Principles state that authors should "take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed" and that authorship should "accurately reflect the relative scientific or professional contributions of the individuals involved" (Standard 8.12). Each submitted manuscript must include a paragraph (not included in the word count), after the body of the main text and before any acknowledgments, that states each author's contribution.

Double-space all copy. Other formatting instructions, as well as instructions on preparing tables, figures, references, metrics, and abstracts, appear in the *Manual*. Additional guidance on APA Style is available on the [APA Style website \(https://apastyle.apa.org\)](https://apastyle.apa.org).

Below are additional instructions regarding the preparation of display equations, computer code, and tables.

Display equations

We strongly encourage you to use MathType (third-party software) or Equation Editor 3.0 (built into pre-2007 versions of Word) to construct your equations, rather than the equation support that is built into Word 2007 and Word 2010. Equations composed with the built-in Word 2007/Word 2010 equation support are converted to low-resolution graphics when they enter the production process and must be rekeyed by the typesetter, which may introduce errors.

To construct your equations with MathType or Equation Editor 3.0:

- Go to the Text section of the Insert tab and select Object.
- Select MathType or Equation Editor 3.0 in the drop-down menu.

If you have an equation that has already been produced using Microsoft Word 2007 or 2010 and you have access to the full version of MathType 6.5 or later, you can convert this equation to MathType by clicking on MathType Insert Equation. Copy the equation from Microsoft Word and paste it into the MathType box. Verify that your equation is correct, click File, and then click Update. Your equation has now been inserted into your Word file as a MathType Equation.

Use Equation Editor 3.0 or MathType only for equations or for formulas that cannot be produced as Word text using the Times or Symbol font.

Computer code

Because altering computer code in any way (e.g., indents, line spacing, line breaks, page breaks) during the typesetting process could alter its meaning, we treat computer code differently from the rest of your article in our production process. To that end, we request separate files for computer code.

In online supplemental material

We request that runnable source code be included as supplemental material to the article. For more information, visit [Supplementing Your Article With Online Material \(/pubs/journals/resources/supplemental-material\)](https://pubs/journals/resources/supplemental-material).

In the text of the article

If you would like to include code in the text of your published manuscript, please submit a separate file with your code exactly as you want it to appear, using Courier New font with a type size of 8 points. We will make an image of each segment of code in your article that exceeds 40 characters in length. (Shorter snippets of code that appear in text will be typeset in Courier New and run in with the rest of the text.) If an appendix contains a mix of code and explanatory text, please submit a file that contains the entire appendix, with the code keyed in 8-point Courier New.

Tables

Use Word's insert table function when you create tables. Using spaces or tabs in your table will create problems when the table is typeset and may result in errors.

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Figures

Graphics files are welcome if supplied as Tiff or EPS files. Multipanel figures (i.e., figures with parts labeled a, b, c, d, etc.) should be assembled into one file.

The minimum line weight for line art is 0.5 point for optimal printing.

For more information about acceptable resolutions, fonts, sizing, and other figure issues, please see the [general guidelines \(http://art.cadmus.com/da/guidelines.jsp\)](http://art.cadmus.com/da/guidelines.jsp).

When possible, please place symbol legends below the figure instead of to the side.

APA offers authors the option to publish their figures online in color without the costs associated with print publication of color figures.

The same caption will appear on both the online (color) and print (black and white) versions. To ensure that the figure can be understood in both formats, authors should add alternative wording (e.g., "the red (dark gray) bars represent") as needed.

For authors who prefer their figures to be published in color both in print and online, original color figures can be printed in color at the editor's and publisher's discretion provided the author agrees to pay:

- \$900 for one figure
- An additional \$600 for the second figure
- An additional \$450 for each subsequent figure

Ethical Principles

It is a violation of APA Ethical Principles to publish "as original data, data that have been previously published" (Standard 8.13).

In addition, APA Ethical Principles specify that "after research results are published, psychologists do not withhold the data on which their conclusions are based from other competent professionals who seek to verify the substantive claims through reanalysis and who intend to use such data only for that purpose, provided that the confidentiality of the participants can be protected and unless legal rights concerning proprietary data preclude their release" (Standard 8.14).

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Authors are required to state in writing that they have complied with APA ethical standards in the treatment of their sample, human or animal, or to describe the details of treatment.

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The APA Ethics Office provides the full [Ethical Principles of Psychologists and Code of Conduct \(/ethics/code\)](#) electronically on its website in HTML, PDF, and Word format. You may also request a copy by [emailing \(mailto:ethics@apa.org\)](mailto:ethics@apa.org) or calling the APA Ethics Office (202-336-5930). You may also read "Ethical Principles," December 1992, *American Psychologist*, Vol. 47, pp. 1597–1611.

Other information

Visit the [Journals Publishing Resource Center \(/pubs/journals/resources\)](#) for more resources for writing, reviewing, and editing articles for publishing in APA journals.

Appendix B – Certification of Compliance with APA Ethical Principles

CERTIFICATION OF COMPLIANCE WITH APA ETHICAL PRINCIPLES

The APA Publications and Communications Board has added to the Instructions to Authors for each APA journal the following statement: "Authors will be required to state in writing that they have complied with APA ethical standards in the treatment of their sample, human or animal, or to describe the details of treatment." (A copy of the APA Ethical Principles may be obtained at <http://www.apa.org/ethics/> or by writing the APA Ethics Office, 750 First Street, NE, Washington, DC 20002-4242.)

For your information, the APA Ethical Principles concerning research and publication are reprinted below. Please review the Principles and sign the form provided on the back of this sheet to indicate that you are in compliance.

From Ethical Principles of Psychologists and Code of Conduct. (2002). *American Psychologist*, 57, 1060–1073.

8.01 Institutional Approval

When institutional approval is required, psychologists provide accurate information about their research proposals and obtain approval prior to conducting the research. They conduct the research in accordance with the approved research protocol.

8.02 Informed Consent to Research

(a) When obtaining informed consent as required in Standard 3.10, Informed Consent, psychologists inform participants about (1) the purpose of the research, expected duration, and procedures; (2) their right to decline to participate and to withdraw from the research once participation has begun; (3) the foreseeable consequences of declining or withdrawing; (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects; (5) any prospective research benefits; (6) limits of confidentiality; (7) incentives for participation; and (8) whom to contact for questions about the research and research participants' rights. They provide opportunity for the prospective participants to ask questions and receive answers. (See also Standards 8.03, Informed Consent for Recording Voices and Images in Research; 8.05, Dispensing With Informed Consent for Research; and 8.07, Deception in Research.)

(b) Psychologists conducting intervention research involving the use of experimental treatments clarify to participants at the outset of the research (1) the experimental nature of the treatment; (2) the services that will or will not be available to the control group(s) if appropriate; (3) the means by which assignment to treatment and control groups will be made; (4) available treatment alternatives if an individual does not wish to participate in the research or wishes to withdraw once a study has begun; and (5) compensation for or monetary costs of participating including, if appropriate, whether reimbursement from the participant or a third-party payor will be sought. (See also Standard 8.02a, Informed Consent to Research.)

8.03 Informed Consent for Recording Voices and Images in Research

Psychologists obtain informed consent from research participants prior to recording their voices or images for data collection unless (1) the research consists solely of naturalistic observations in public places, and it is not anticipated that the recording will be used in a manner that could cause personal identification or harm, or (2) the research design includes deception, and consent for the use of the recording is obtained during debriefing. (See also Standard 8.07, Deception in Research.)

8.04 Client/Patient, Student, and Subordinate Research Participants

(a) When psychologists conduct research with clients/patients, students, or subordinates as participants, psychologists take steps to protect the prospective participants from adverse consequences of declining

or withdrawing from participation.

(b) When research participation is a course requirement or an opportunity for extra credit, the prospective participant is given the choice of equitable alternative activities.

8.05 Dispensing With Informed Consent for Research

Psychologists may dispense with informed consent only (1) where research would not reasonably be assumed to create distress or harm and involves (a) the study of normal educational practices, curricula, or classroom management methods conducted in educational settings; (b) only anonymous questionnaires, naturalistic observations, or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability, or reputation, and confidentiality is protected; or (c) the study of factors related to job or organization effectiveness conducted in organizational settings for which there is no risk to participants' employability, and confidentiality is protected or (2) where otherwise permitted by law or federal or institutional regulations.

8.06 Offering Inducements for Research Participation

(a) Psychologists make reasonable efforts to avoid offering excessive or inappropriate financial or other inducements for research participation when such inducements are likely to coerce participation.

(b) When offering professional services as an inducement for research participation, psychologists clarify the nature of the services, as well as the risks, obligations, and limitations. (See also Standard 6.05, Barter With Clients/Patients.)

8.07 Deception in Research

(a) Psychologists do not conduct a study involving deception unless they have determined that the use of deceptive techniques is justified by the study's significant prospective scientific, educational, or applied value and that effective nondeceptive alternative procedures are not feasible.

(b) Psychologists do not deceive prospective participants about research that is reasonably expected to cause physical pain or severe emotional distress.

(c) Psychologists explain any deception that is an integral feature of the design and conduct of an experiment to participants as early as is feasible, preferably at the conclusion of their participation, but no later than at the conclusion of the data collection, and permit participants to withdraw their data. (See also Standard 8.08, Debriefing.)

8.08 Debriefing

(a) Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of the research, and they take reasonable steps to correct any misconceptions that participants may have of which the psychologists are aware.

(b) If scientific or humane values justify delaying or withholding this information, psychologists take reasonable measures to reduce the risk of harm.

(c) When psychologists become aware that research procedures have harmed a participant, they take reasonable steps to minimize the harm.

8.09 Humane Care and Use of Animals in Research

(a) Psychologists acquire, care for, use, and dispose of animals in compliance with current federal, state, and local laws and regulations, and with professional standards.

(b) Psychologists trained in research methods and experienced in the care of laboratory animals supervise all procedures involving animals and are responsible for ensuring appropriate consideration of their comfort, health, and humane treatment.

(c) Psychologists ensure that all individuals under their supervision who are using animals have received instruction in research methods and in the care, maintenance, and handling of the species being used, to the extent appropriate to their role. (See also Standard 2.05, Delegation of Work to Others.)

(d) Psychologists make reasonable efforts to minimize the discomfort, infection, illness, and pain of animal subjects.

(e) Psychologists use a procedure subjecting animals to pain, stress, or privation only when an alternative procedure is unavailable and the goal is justified by its prospective scientific, educational, or applied value.

(f) Psychologists perform surgical procedures under appropriate anesthesia and follow techniques to avoid infection and minimize pain during and after surgery.

(g) When it is appropriate that an animal's life be terminated, psychologists proceed rapidly, with an effort to minimize pain and in accordance with accepted procedures.

8.10 Reporting Research Results

(a) Psychologists do not fabricate data. (See also Standard 5.01a, Avoidance of False or Deceptive Statements.)

(b) If psychologists discover significant errors in their published data, they take reasonable steps to correct such errors in a correction, retraction, erratum, or other appropriate publication means.

8.11 Plagiarism

Psychologists do not present portions of another's work or data as their own, even if the other work or data source is cited occasionally.

8.12 Publication Credit

(a) Psychologists take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed. (See also Standard 8.12b, Publication Credit.)

(b) Principal authorship and other publication credits accurately reflect the relative scientific or professional contributions of the individuals involved, regardless of their relative status. Mere possession of an institutional position, such as department chair, does not justify authorship credit. Minor contributions to the research or to the writing for publications are acknowledged appropriately, such as in footnotes or in an introductory statement.

(c) Except under exceptional circumstances, a student is listed as principal author on any multiple-authored article that is substantially based on the student's doctoral dissertation. Faculty advisors discuss publication credit with students as early as feasible and throughout the research and publication process as appropriate. (See also Standard 8.12b, Publication Credit.)

8.13 Duplicate Publication of Data

Psychologists do not publish, as original data, data that have been previously published. This does not preclude republishing data when they are accompanied by proper acknowledgment.

8.14 Sharing Research Data for Verification

(a) After research results are published, psychologists do not withhold the data on which their conclusions are based from other competent professionals who seek to verify the substantive claims through reanalysis and who intend to use such data only for that purpose, provided that the confidentiality of the participants can be protected and unless legal rights concerning proprietary data preclude their release. This does not preclude psychologists from requiring that such individuals or groups be responsible for costs associated with the provision of such information.

(b) Psychologists who request data from other psychologists to verify the substantive claims through reanalysis may use shared data only for the declared purpose. Requesting psychologists obtain prior written agreement for all other uses of the data.

8.15 Reviewers

Psychologists who review material submitted for presentation, publication, grant, or research proposal review respect the confidentiality of and the proprietary rights in such information of those who submitted it.

(Cut along dotted line and send to Editor)

JOURNAL Cultural Diversity & Ethnic Minority Psychology

TITLE OF MANUSCRIPT A longitudinal mediation analysis of the effect of Aboriginal Australian mothers' experiences of racism on children's socio-emotional well-being

AUTHOR(S) _____

I certify that I (we) have complied with the APA ethical principles regarding research with human participants and/or care and use of animals in the conduct of the research presented in this manuscript.

(Name of corresponding author) (date)

Appendix C – Frequency of Maternal Experiences of Racial Discrimination

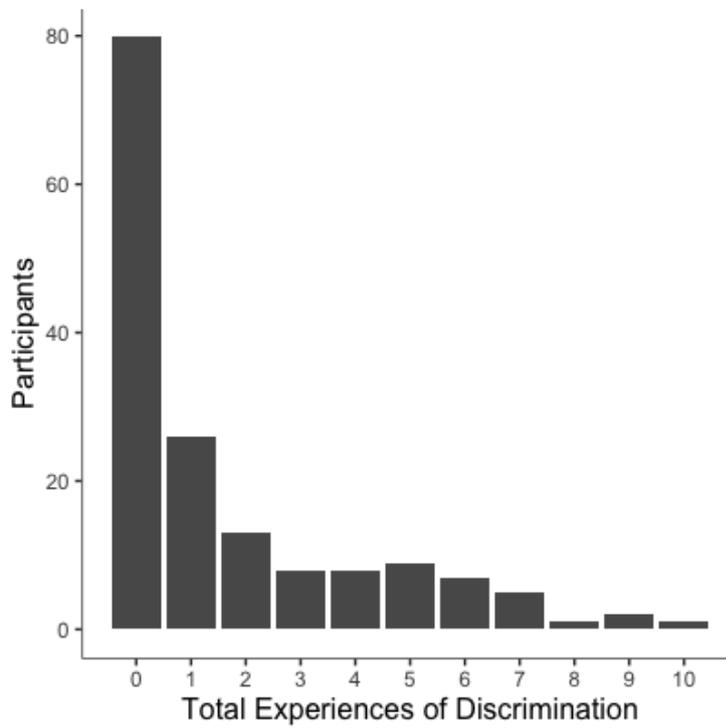


Figure 1. Histogram of the number of settings that mothers experienced racial discrimination ($N = 160$)