Bullying Victimization and Racial Discrimination Among Australian Children

Naomi Priest, PhD, Tania King, PhD, Laia Bécares, PhD, and Anne M. Kavanagh, PhD

Objectives. To compare the prevalence of bullying victimization and racial discrimination by ethnicity.

Methods. We completed a cross-sectional analysis of 3956 children aged 12 to 13 years from wave 5 (2011–2012) of the nationally representative Longitudinal Study of Australian Children.

Results. Bullying victimization and racial discrimination were weakly associated and differently patterned by ethnicity. Children from visible minorities reported less bullying victimization but more racial discrimination than did their peers with Australian-born parents. Indigenous children reported the highest risk of bullying victimization and racial discrimination.

Conclusions. Peer victimization and racial discrimination each require specific attention as unique childhood stressors. A focus on general bullying victimization alone may miss unique stress exposures experienced by children from stigmatized ethnic backgrounds. (*Am J Public Health.* 2016;106:1882–1884. doi:10.2105/AJPH.2016.303328)

Identifying childhood risk factors for adult chronic disease and premature mortality is critical to addressing population health inequalities.[1] Greater understanding of potentially malleable childhood risk factors is essential,[1] including patterns of different forms of childhood stressors and how they cluster and accumulate. This is particularly required for children from stigmatized racial/ethnic groups who experience greater exposure to multiple stressors and substantial health inequalities globally.[2] Bullying victimization is a common childhood stressor experienced by a third of children internationally.[3] Far-reaching consequences have been documented, including increased mental illness and somatic problems such as sleep difficulties in childhood[4]; systemic inflammation,[5] anxiety, depression, self-harm, and overall mental health problems[6] among young adults; and inflammation, obesity,[7] anxiety, depression, psychological distress, and suicidality in midlife.[8] Racial discrimination is another common stressor with similarly deleterious consequences on child and adult mental and physical health as well as preclinical indicators.[2,9]

Yet little is known about the co-occurrence of bullying victimization and racial discrimination among children.[10,11] One study that used the Canadian 2001/2002 Health Behaviors in School-Aged Children Survey found that racial victimization and general victimization were only moderately correlated ($r = 0.30$).[11] Most bullying research also does not ask children to attribute their experiences to an identity such as race or ethnicity.[10] Some evidence does suggest that bullying is not random and is related to stigmatized characteristics or perceived group affiliations such as race or ethnicity.[10] Yet debate continues about whether bullying victimization varies by ethnicity with mixed findings globally.[12]

Racial discrimination research among children has predominantly occurred in the United States, with far fewer studies in countries where ethnic diversity is driven primarily by recent migration.[9] Australia has a large migrant population, with 27% of the population born overseas and 19% of the population speaking a language other than English at home.[13] Indigenous Australians make up 2.5% of the population.[13] Informed by developmental science and a bio-developmental approach to understanding the origins of health inequalities,[1] this study compared experiences of bullying and racial discrimination by ethnicity (classified by parental country of birth and Indigenous status) among Australian children.

METHODS

We used data from 3956 children aged 12 to 13 years from wave 5 (2011–2012) of the nationally representative Longitudinal Study of Australian Children (LSAC) kindergarten cohort. Sampling design, ethics approval, recruitment, and data collection are reported elsewhere.[14]

Outcome Variables

Bullying victimization. Children were asked 7 questions developed for LSAC from which we derived 3 dichotomous variables: physical, social, and any bullying victimization (hereafter, *any bullying*).

Racial discrimination. Children also were asked 3 questions about racial discrimination experiences developed for LSAC from which

ABOUT THE AUTHORS

Naomi Priest and Tania King are with the Centre for Social Research and Methods, Australian National University, and the Centre for Health Equity, Melbourne School of Population and Global Health, The University of Melbourne, Australia. Laia Bécares is with the Centre on Dynamics of Ethnicity, University of Manchester, Manchester, UK. Anne M. Kavanagh is with the Centre for Health Equity, Melbourne School of Population and Global Health, The University of Melbourne.

Correspondence should be sent to Naomi Priest, PhD, Australian National University, Beryl Rawson Building #13, Acton, ACT, 2612, Australia (e-mail: naomi.priest@anu.edu.au). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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we derived 1 combined dichotomous variable. (For detail on measures and coding of bullying and racial discrimination, see Appendix A, available as a supplement to the online version of this article at http://www.ajph.org.)

Exposures

Self-reported race/ethnicity is not routinely collected in Australia. Although we recognize that immigrant status is not synonymous with race or ethnicity, in Australia, "country of birth" and "language spoken at home" categories are widely used as proxies for self-reported ethnicity or race. Thus, as necessitated by this sociopolitical context and data availability, we created proxy ethnicity categories that identify stigmatized identities based on parental country of birth and Indigenous status of Australian-born; Anglo/European (Caucasian or White); visible minority (non-Caucasian or non-White, not Indigenous); or Indigenous (Aboriginal and/or Torres Strait Islander).[15] (For further detail on parental country of birth data by the ethnicity categories used for analyses, see Appendix A, available as a supplement to the online version of this article at http://www.ajph.org.)

Missing Data

Missing data on exposures, outcomes, and covariates were any bullying (2.9%; n = 116), physical bullying (2.9%; n = 116), social bullying (2.9%; n = 116), and racial discrimination (12.5%; n = 493). Missing data for bullying variables did not vary by gender, parental education, household, or income. Some evidence indicated that missing data varied by ethnicity, with Indigenous children more likely to be missing data on bullying victimization and racial discrimination variables. We conducted complete case analysis.

Statistical Analysis

We used Poisson regression models with a robust variance estimator to obtain prevalence rate ratios for bullying and for racial discrimination across ethnic groups.[16] This approach is recommended as a better alternative than logistic regression for analysis of cross-sectional data with binary outcomes, particularly when the outcome is not rare, and provides correct point and interval estimation. Unlike the prevalence odds ratio, it allows for direct comparison of prevalence between groups and is more interpretable and easier to communicate to non-epidemiological audiences.[16] The magnitude of association is lower than the prevalence odds ratio, with estimates converging with decreasing prevalence of an outcome.[16]

We examined concordance between any bullying and racial discrimination measures for the total sample and each ethnic group with the κ statistic, which is equivalent to the intraclass correlation coefficient.[17] We also calculated pairwise correlations for sensitivity analysis. We used the add-on package PanelWhiz[18] to extract data from the LSAC data set, and we conducted analyses with the SVY command in Stata/SE version 12 (StataCorp LP, College Station, TX).

RESULTS

Reported bullying and racial discrimination were differently patterned by ethnicity, particularly for visible minority children (Table 1). Children from visible minorities reported less physical bullying compared with those with an Australian-born parent (20.9% vs 31.8%; crude prevalence rate ratio = 0.66; 95% confidence interval [CI] = 0.53, 0.81). Children with an Anglo or European-born parent reported similar levels of physical bullying (30.6%) as those with an Australian-born parent. Similar patterns were observed for social bullying and for any bullying. Conversely, children from visible minorities reported higher levels of racial discrimination than did those with Australian-born parents (17.6% vs 8.8%; crude prevalence rate ratio = 2.02; 95% CI = 1.58, 2.58). Compared with children with Australian-born parents, Indigenous children reported the highest levels of physical bullying (44.4% vs 31.8%; crude prevalence rate ratio = 1.40; 95% CI = 1.11, 1.76), social bullying (46.6% vs 34.3%; crude prevalence rate ratio = 1.36; 95% CI = 1.06, 1.74), any bullying (69.1% vs 55.7%; crude prevalence rate ratio = 1.24; 95% CI = 1.07, 1.43), and racial discrimination (23.0% vs 8.8%; crude prevalence rate ratio = 2.63; 95% CI = 1.76, 3.94).

Concordance between the any bullying and racial discrimination measures was poor across the total sample (53%; κ = 0.11) and within each ethnic group (Australian born: 51%; κ = 0.09; Anglo or European: 51%; κ = 0.10; visible minority: 65%; κ = 0.24; Indigenous: 49.5%; κ = 0.11).[17] Sensitivity analysis using pairwise correlations produced similar findings (for details, see Appendix A, available as a supplement to the online version of this article at http://www.ajph.org).

DISCUSSION

In this large, nationally representative cohort of Australian children, we found reported bullying victimization and racial discrimination had low concordance, suggesting that they are distinct stressors in

TABLE 1—Prevalence and Crude Unadjusted Poisson Regression of Risk of Bullying Victimization and Racial Discrimination, by Ethnicity, in 3956 Children Aged 12 to 13 Years: Longitudinal Study of Australian Children, 2011–2012

	Australian (Ref), %	Anglo or European		Visible Minority		Indigenous	
		%	PRR (95% CI)	%	PRR (95% CI)	%	PRR (95% CI)
Physical bullying	31.81	30.62	0.96 (0.83, 1.11)	20.93	0.66 (0.53, 0.81)	44.43	1.40 (1.11, 1.76)
Social bullying	34.31	35.75	1.04 (0.91, 1.20)	26.22	0.76 (0.64, 0.91)	46.58	1.36 (1.06, 1.74)
Any bullying	55.74	55.97	1.00 (0.92, 1.10)	43.10	0.77 (0.69, 0.87)	69.07	1.24 (1.07, 1.43)
Racial discrimination	8.75	8.87	1.01 (0.73, 1.40)	17.64	2.02 (1.58, 2.58)	23.04	2.63 (1.76, 3.94)

Note. CI = confidence interval; PRR = prevalence rate ratio. Because race/ethnicity data are not routinely collected in Australia, we created proxy ethnicity categories that identify stigmatized identities based on parental country of birth and Indigenous status of Australian-born; Anglo/European (Caucasian or White); visible minority (non-Caucasian or non-White, not Indigenous); Indigenous (Aboriginal and/or Torres Strait Islander).

children's lives. Given mounting evidence documenting substantial long-term detrimental effects of these stressors, specific attention to each of these stressors within efforts to address health inequalities is required.

This study had several limitations. Measures of bullying victimization and racial discrimination have not been used previously, although similar measures are used elsewhere.[9] Ethnicity was classified according to parental country of birth rather than self-reported race/ethnicity, raising potential for measurement error for children of migrant grandparents. Although the visible minority category represents a heterogeneous population, this method is also used in other national settings with high ethnic diversity.[15] Strengths of this current study include its use of a range of bullying victimization and racial discrimination outcomes and the use of a large, nationally representative sample of children.

This study found that bullying victimization and racial discrimination are each distinct stressors for children. A focus solely on general bullying victimization without consideration of racial discrimination may miss a key stressor and health determinant for children from stigmatized racial/ethnic groups. AJPH

CONTRIBUTORS

All authors conceptualized the study and contributed to the interpretation of results and to the final version of the article. T. King conducted analyses guided by N. Priest, L. Bécares, and A. M. Kavanagh. N. Priest wrote the first draft of the article.

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HUMAN PARTICIPANT PROTECTION

Ethics approval for the Longitudinal Study of Australian Children (LSAC) was received from the Australian of Institute of Studies ethics committee. Specific ethics approval for this article was not required because it uses secondary data made available by the LSAC administrators.

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