

Self-Reported Experience of Racial Discrimination and Health Care Use in New Zealand: Results From the 2006/07 New Zealand Health Survey

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Racism is increasingly recognized as an important determinant of health and driver of ethnic health inequalities.¹ Regardless of its health effects, racism breaches fundamental human rights and is morally wrong. It is important to understand how racism operates as a health risk to develop interventions that reduce ethnic inequalities in health within a context of eliminating racism.²

Racism is an organized system that categorizes racial/ethnic groups and structures opportunity, leading to inequities in societal goods and resources and a racialized social order.³⁻⁵ Racism operates via institutional and individual practices (racial discrimination) and varies in form and type.^{6,7} The pathways whereby racism leads to poor health are also multiple, with direct and indirect mechanisms such as race-based assaults and violence, physiological and psychological stress mechanisms, differential exposures to health risk factors, differential access to and experiences of health care, and differential access to goods, resources, and power in society.^{6,8-10}

Research on racism and health, particularly self-reported racism, has increased. Self-reported experience of racism has been linked to multiple health measures (including mental and physical health outcomes and health risk factors) across a variety of countries and for different ethnic groups.¹⁰⁻¹² Research on how self-reported experience of racism may negatively affect health has largely focused on racism as a stressor with mental and physical health consequences.^{10,13} Comparatively less evidence is available on how experience of racism may influence health service use,¹⁰ although this is another potentially important pathway to poor health.^{14,15}

Studies on the association between self-reported racism and health care experience and use have included racism experienced within

Objectives. We investigated whether reported experience of racial discrimination in health care and in other domains was associated with cancer screening and negative health care experiences.

Methods. We used 2006/07 New Zealand Health Survey data (n = 12 488 adults). We used logistic regression to examine the relationship of reported experience of racial discrimination in health care (unfair treatment by a health professional) and in other domains (personal attack, unfair treatment in work and when gaining housing) to breast and cervical cancer screening and negative patient experiences adjusted for other variables.

Results. Racial discrimination by a health professional was associated with lower odds of breast (odds ratio [OR] = 0.37; 95% confidence interval [CI] = 0.14, 0.996) and cervical cancer (OR = 0.51; 95% CI = 0.30, 0.87) screening among Maori women. Racial discrimination by a health professional (OR = 1.57; 95% CI = 1.15, 2.14) and racial discrimination more widely (OR = 1.55; 95% CI = 1.35, 1.79) were associated with negative patient experiences for all participants.

Conclusions. Experience of racial discrimination in both health care and other settings may influence health care use and experiences of care and is a potential pathway to poor health. (*Am J Public Health.* 2012;102:1012-1019. doi:10.2105/AJPH.2011.300626)

the health care system, outside of the health care system, or both.¹⁶⁻¹⁹ Health care measures have included use of specific services such as cancer screening¹⁹⁻²⁴ and receipt of optimal care,^{20,25} measures of unmet need,^{16,26} measures of adherence to care,^{17,27,28} and measures of satisfaction and experiences with care.^{18,29-31}

Various mechanisms have been suggested to explain how the experience of racism may negatively affect health care use, experiences of health care, and subsequent poor health. Experiences of racism within the health care system may influence health by shaping decision making of both providers and patients and influencing future health behaviors, including future health care use behaviors and potential disengagement from the health care system.^{14,18,26} Experiences of racism in wider society also may lead to general mistrust and avoidance of dominant culture institutions, including health care systems.^{15,30} This is supported by evidence that both experiences of

racism and general discrimination within and outside of health care have been associated with negative health care use measures.^{15,16,19,22}

New Zealand has a population of approximately 4.4 million people, with the major ethnic groupings being Maori (indigenous peoples, 15% of the population), European (77%), Pacific (7%), and Asian (10%).³² Ethnic inequalities in health and socioeconomic status persist, with racism a potentially important contributor to these inequalities.³³ Previous research in New Zealand has shown reported experience of racial discrimination by a health professional to be higher among non-European ethnic groups with experiences of racial discrimination in different settings associated with multiple health outcomes and risk factors.³⁴

In this study, we focused on the relationship between racial discrimination and health service use and experience, an area not previously examined in New Zealand. We provide important information on how racial discrimination

may affect health care use as a possible pathway to poor health outcomes and ethnic health inequalities in New Zealand. In addition, our study contributes to the limited evidence on racial discrimination and health care internationally.

Primary health care in New Zealand is available to all residents and is usually provided at general practices. Costs of visits are universally subsidized by government to enable lower patient copayments with additional limited provision for extra funding based on high need.³⁵ Currently, 2 publicly funded national cancer screening programs are available.³⁶ Breast cancer screening is free to all eligible women through BreastScreen Aotearoa. Cervical cancer screening usually incurs a fee and is available through patients' usual primary care provider or specific cervical cancer screening providers.

We specifically examined the association between self-reported experience of racial discrimination and the use of health care in 2 domains—cancer screening and negative patient perceptions of health care encounters. We hypothesized that experience of racial discrimination both within and outside the health care system may negatively affect how individuals use and experience health care.

METHODS

Data were from the 2006/07 adult New Zealand Health Survey. The New Zealand Health Survey measures self-reported physical and mental health status, health protective and risk factors (including racial discrimination), and the use of health care services among people usually resident in New Zealand.³⁷

Survey Design

The survey used a multistage, stratified, probability-proportional-to-size sampling design with an area-based sampling frame.³⁷ Primary sampling units (PSUs) were selected from meshblocks (small geographic areas of approximately 100 people). Within selected PSUs, households were randomly selected, followed by 1 eligible participant. Increased sampling of Maori, Pacific, and Asian ethnic groups allowed for improved estimates by ethnicity.³⁷ Face-to-face interviews took place between October 6, 2006, and November 29,

2007. The survey included 12 488 adults aged 15 years or older (5273 men and 7215 women) with a response rate of 68% overall (Maori 68%, Pacific 70%, Asian 80%, and European/other 68%).³⁷ Ethics approval was granted by the New Zealand Health and Disability Multi-Region Ethics Committee. Additional information on survey methodology and sample characteristics can be found elsewhere.^{37,38}

Key Variables

Outcome measures. Choice of health care variables was based on a review of the literature, potential association with health outcomes, and data availability and quality. We undertook analyses in 2 areas of health care: cancer screening and negative patient experience.

Two measures of cancer screening were available: self-reported mammogram in the last 2 years and self-reported cervical smear in the last 3 years. The time frames reflect the recommended guidelines for breast and cervical cancer screening in New Zealand.³⁶ Previously published findings showed that Maori, Pacific, and Asian women were significantly less likely to have had mammograms and cervical smears than were European/other women.³⁸ Analyses of these variables were restricted to women eligible for screening. For mammograms, this included women aged 45 to 69 years with no previous breast cancer. For cervical smears, this included women aged 20 to 69 years with no previous hysterectomy or previous cervical cancer.

We also examined 4 measures of negative patient experience. These were based on 3 questions asked of only participants with a usual primary health care provider (93.3%)³⁸ about their perceptions of any encounters with their provider over the last 12 months. They included whether their health care professional listened carefully to what they said; whether they discussed with them, as much as they wanted, their health care and treatment; and whether they treated them with respect and dignity. Response options included all of the time, most of the time, some of the time, and none of the time. People who responded with most, some, and none of the time were assumed to have had a negative patient experience at some point in the last 12 months. Responses were categorized into a binary variable (all of

the time vs most, some, or none of the time). Most people (>90%) always had a positive experience. Previously published findings showed ethnic disparities in these measures; Maori and Pacific patients had lower prevalence of always having a positive experience than did European/other patients.³⁸

A fourth composite variable of “any negative patient experience” also was created, whereby the 3 questions described earlier were grouped together. If respondents answered “most, some, or none of the time” to at least 1 question, they were included in the negative patient experience group and were compared with patients who answered “all of the time” to all 3 questions. Data for these analyses were restricted to people with a usual health care provider and at least 1 visit in the last 12 months.

Racial discrimination. Questions about individuals' personal experience of racial discrimination covered 5 items: experience of an ethnically motivated (1) physical or (2) verbal attack, and unfair treatment because of ethnicity (3), by a health professional, (4) at work, or (5) when gaining housing. For 8 people with “don't know” and missing responses to the racial discrimination questions, data were imputed with the “hot-deck” method with little change in results.³⁹ Previous testing and use of the racial discrimination questions can be found elsewhere.³⁴ Questions were developed from items in the United Kingdom Fourth National Survey of Ethnic Minorities⁴⁰ and the Behavioral Risk Factor Surveillance System.⁴¹ Regarding terminology, racial and ethnic discrimination are used interchangeably in the New Zealand context.

Racial discrimination items were categorized into 2 binary racial discrimination variables. The first variable was self-reported experience of racial discrimination by a health care professional ever in a person's lifetime. The second variable was any other self-reported experience of racial discrimination (including ethnically motivated physical or verbal attack or unfair treatment in housing or employment because of ethnicity) ever in a person's lifetime.

Ethnicity. The survey used the standard ethnicity question from the 2006 New Zealand Census.⁴² In New Zealand, the term “ethnicity” is used rather than “race” in the collection of

official statistics. It is considered a social construct of group affiliation and cultural identity. People can self-identify with 1 or more ethnic groups.

For the purposes of this study, ethnicity was classified into 4 major ethnic groupings based on standard protocols⁴³: Maori, Pacific, Asian, and European. In New Zealand, the Pacific, Asian, and European categories represent individuals who self-identify broadly as having cultural or geographic origins in the Pacific Islands, Asia, and Europe, respectively.

For the calculation of crude prevalence rates, the total response output was used for Maori, Pacific, and Asian groups. Respondents were counted in each of the groups they reported. Little overlap between groups (< 2%) was seen. The European group was considered the comparator. Therefore, people who identified as European only were included in this group. For ease of analysis in logistic regression models, ethnicity was prioritized to create mutually exclusive groups in the following order: Maori, Pacific, Asian, and European.⁴³

Other covariates. Measures of socioeconomic position included education (tertiary, some secondary, and no secondary qualification), equivalized household income (in tertiles), and area deprivation (New Zealand Index of Deprivation 2006 quintiles). The New Zealand Index of Deprivation 2006 combined (by principal component analysis) 9 variables (household income, benefit receipt, home ownership, living in a single-parent family, employment status, qualifications, living space, access to a car, and access to a telephone) from the 2006 Census to provide a deprivation score for each meshblock in New Zealand.⁴⁴ Higher scores indicate greater deprivation.

Increased frequency of visits to a health care provider had the potential to confound the relationship between experience of racial discrimination by a health professional and negative health measures. For example, people who are sicker may have more frequent visits to a health care provider and potentially more exposure to racism by a health care provider. Therefore, we also adjusted for frequency of visits to a usual provider in the last 12 months as a potential confounder of the relationship between unfair treatment by a health professional and negative patient experience. We could not control for frequency of visits in

analyses of cancer screening because screening was examined among all eligible women, regardless of whether they had a usual provider. Frequency of visits was asked only of participants with a usual provider.

Data Analysis

We analyzed data with SAS version 9.1.3 (SAS Institute, Cary, NC). Replicate survey weights (adjusted for an individual's probability of selection and differential nonresponse) were applied to data to produce estimates representative of the New Zealand population and calculate 95% confidence intervals (CIs).

Data were restricted to each group of interest (i.e., women eligible for breast cancer screening, women eligible for cervical cancer screening, and adults, both men and women, with a usual primary health care provider and at least 1 visit in the last 12 months). We calculated crude prevalence estimates of self-reported experience of racial discrimination by ethnicity for each group. Logistic regression was used to examine the independent association of experience of racial discrimination (in a health care setting ever, any other experience of racial discrimination ever) with cancer screening use and negative patient experience. Models for screening were restricted to eligible women and adjusted for age (in categories), ethnicity (prioritized), education, equivalized household income, and New Zealand Index of Deprivation 2006. Statements for "cluster" and "stratum" based on PSUs and District Health Boards, respectively, were included to account for survey design. We also adjusted negative patient experiences for gender and frequency of visits to a health care provider in the last 12 months (1–2, 3–5, or ≥ 6 visits).

To test for possible differences in the association between experience of racial discrimination and health care measures by ethnicity, interaction terms (ethnicity × racial discrimination) were included in the model. When these were significant, we completed stratified analyses by ethnicity.

RESULTS

Table 1 shows the prevalence of reported experience of racial discrimination among each of the populations under investigation

(i.e., women eligible for breast screening, women eligible for cervical screening, and adults with a usual health care provider and at least 1 visit in the last 12 months). As expected, Europeans had the lowest prevalence of reported experience of racial discrimination across all subgroups and racial discrimination measures. Across the respondent subgroups, the prevalence of reported experience of racial discrimination by a health professional ranged between 3.3% and 7.1% for Maori, Pacific, and Asian groups. This compares with 1.2% to 1.8% among Europeans. Similarly, Asian (34.1%–36.2%), Maori (28.3%–29.5%), and Pacific (15.0%–22.3%) groups reported higher prevalence rates of all other forms of racial discrimination than did Europeans (10.9%–13.2%).

Experience of racial discrimination (in health care and in any other domain) was not significantly associated with breast or cervical cancer screening in adjusted models (Table 2). However, a significant interaction was found between racial discrimination and ethnicity ($P < .001$), with stratified analyses indicating that reported experience of racial discrimination by a health care provider was significantly associated with lower odds of cervical smears (odds ratio [OR] = 0.51; 95% CI = 0.30, 0.87) and mammograms (OR = 0.37; 95% CI = 0.14, 0.996) among eligible Maori women (but not other ethnic groups).

Significant associations were found between experience of racial discrimination and all negative patient experience measures (Table 3). Patients who reported experience of racial discrimination by a health care professional were significantly more likely to report that they were not always listened to carefully, that they did not always have information fully discussed with them, and that they were not always treated with dignity and respect (Table 3). Experience of racial discrimination in settings outside of health care also was associated with all measures of negative patient experience. No significant interactions were found between experience of racial discrimination and ethnicity, suggesting that the association was similar for all ethnic groups.

Experiences of racial discrimination by a health care professional and in non-health care

TABLE 1—Prevalence of Self-Reported Experience of Racial Discrimination (Ever), by Ethnicity: 2006/07 New Zealand Health Survey

Racism Variables (Ever)	Women Eligible for Breast Cancer Screening ^a (n = 2431)		Women Eligible for Cervical Cancer Screening ^b (n = 5038)		Adults (Men and Women) With a Regular Health Care Provider and ≥ 1 Visit in Last 12 Months (n = 9968)	
	No. ^c	% (95% CI)	No. ^c	% (95% CI)	No. ^c	% (95% CI)
Racism by a health professional						
Maori	529	6.4 (3.6, 9.1)	1456	6.1 (4.6, 7.7)	2469	5.0 (4.0, 5.9)
Pacific	149	3.3 (1.3, 6.7)	471	5.8 (3.3, 8.3)	777	5.1 (3.4, 6.9)
Asian	236	7.1 (3.7, 12.1)	728	4.3 (2.6, 5.9)	1033	5.4 (3.5, 7.4)
European	1523	1.8 (1.1, 2.8)	2431	1.3 (0.8, 1.8)	5758	1.2 (0.9, 1.5)
Any other experience of racism						
Maori	529	28.9 (24.1, 33.7)	1456	29.5 (26.7, 32.3)	2469	28.3 (25.8, 30.9)
Pacific	149	15.0 (8.9, 23.2)	471	18.1 (14.0, 22.1)	777	22.3 (18.6, 25.9)
Asian	236	34.5 (26.3, 42.6)	728	36.2 (31.9, 40.5)	1033	34.1 (30.3, 38.0)
European	1523	10.9 (9.3, 12.6)	2431	11.3 (10.0, 12.7)	5758	13.2 (12.1, 14.3)
All racism^d						
Maori	529	30.8 (25.9, 35.7)	1456	31.3 (28.5, 34.1)	2469	29.8 (27.1, 32.5)
Pacific	149	16.3 (9.6, 23.0)	471	19.5 (15.2, 23.8)	777	24.1 (20.3, 27.9)
Asian	236	36.6 (28.2, 44.9)	728	37.2 (32.9, 41.5)	1033	34.9 (31.1, 38.8)
European	1523	11.7 (10.0, 13.4)	2431	11.9 (10.5, 13.3)	5758	13.8 (12.6, 14.9)

Note. CI = confidence interval.

^aWomen aged 45–69 years without previous breast cancer.

^bWomen aged 20–69 years without previous cervical cancer or hysterectomy.

^cRefers to the total number of people in each ethnic group.

^dPrevalence of any experience of racism, combining racism by a health provider and any other experience of racism.

settings appeared to act independently in their associations with health care measures (screening participation and unsatisfactory patient experience). Entering the 2 racial discrimination variables into the models separately and together made very little difference in their associations with health care measures (data not shown).

DISCUSSION

This study has contributed to the emerging body of evidence that racial discrimination, experienced both within health care and in society more widely, may affect patient's experiences and use of health care services. This in turn may act as a pathway by which experience of racism leads to poor health, in addition to the stress effects of racism. To our knowledge, this was the first study to examine the association between reported experience of racial discrimination and health care measures in New Zealand.

No significant association between experience of racial discrimination and breast or

cervical cancer screening was found in the main effects model. However, the interaction with ethnicity indicated that experience of racial discrimination by a health care professional was significantly associated with lower participation in cervical and breast cancer screening among Maori women. Lower breast and cervical cancer screening rates are evident for Maori compared with European women in New Zealand, although the reasons for this are not fully understood.³⁶ Racial discrimination by a health professional may be an important factor to consider.

A limited number of other studies have examined the link between experience of racial discrimination and breast and cervical cancer screening. These studies were largely based in the United States, and the relationship is as yet unclear. In a cross-sectional survey, Crawley et al.²¹ found a significant association between reported experience of racism in health care and lower breast cancer screening. In one of the few longitudinal studies, Mouton et al.²⁴ found a significant association between general experience of racial discrimination and lower

likelihood of cervical cancer, but not breast cancer, screening. However, other studies have found no significant association between reported experience of racism and cervical or breast cancer screening.^{19,22,23} In our study, data were restricted to women eligible for breast cancer screening (aged 45–69 years) and cervical cancer screening (aged 20–69 years) and may not have had enough power to detect significant associations. The point estimates of the ORs are suggestive of a link between experience of racism and lower likelihood of screening, particularly by a health care professional. In addition, we found some variation by ethnicity in the relationship between racial discrimination and screening, as has been reported elsewhere,¹⁹ with a significant association among Maori women but not European, Pacific, or Asian women.

For all ethnic groups, all measures of a negative experience with a health care provider were significantly associated with experience of racial discrimination. The relationship between racial discrimination and various

TABLE 2—Logistic Regression Models of Associations Between Reported Experience of Racial Discrimination (Ever) and Other Demographic Variables With Timely Breast or Cervical Cancer Screening: 2006/07 New Zealand Health Survey

	Mammogram in Last 2 Years (n = 1573), AOR (95% CI)	Cervical Smear in Last 3 Years (n = 3787), AOR (95% CI)
Reported experience of racism		
None (Ref)	1.00	1.00
Racism by a health professional	0.79 (0.45, 1.40)	0.79 (0.52, 1.19)
Other racism	0.91 (0.68, 1.22)	0.85 (0.69, 1.06)
Ethnicity		
European (Ref)	1.00	1.00
Maori	0.41 (0.31, 0.54)	0.79 (0.63, 1.00)
Pacific	0.49 (0.30, 0.79)	0.37 (0.28, 0.50)
Asian	0.53 (0.37, 0.76)	0.24 (0.19, 0.31)
Age group, y		
20-24		1.00 (Ref)
25-44		3.30 (2.49, 4.38)
45-64	1.00 (Ref)	3.82 (2.82, 5.19)
65-69	1.43 (1.04, 1.96)	2.38 (1.52, 3.73)
Education qualification		
No secondary (Ref)	1.00	1.00
Some secondary	0.81 (0.59, 1.11)	1.49 (1.14, 1.95)
Tertiary	0.80 (0.60, 1.06)	1.51 (1.18, 1.94)
New Zealand Index of Deprivation 2006, quintiles		
1 (Ref)	1.00	1.00
2	1.09 (0.76, 1.55)	1.01 (0.74, 1.38)
3	0.98 (0.68, 1.40)	0.91 (0.68, 1.22)
4	1.16 (0.81, 1.64)	0.93 (0.69, 1.25)
5	0.59 (0.40, 0.87)	0.71 (0.52, 0.98)
Equalized household income		
Lowest income	0.64 (0.49, 0.85)	0.64 (0.50, 0.81)
Middle income	0.86 (0.66, 1.12)	0.83 (0.66, 1.03)
Highest income (Ref)	1.00	1.00

Note. AOR = adjusted odds ratio; CI = confidence interval. Analysis of mammogram in the last 2 years was restricted to women eligible for breast cancer screening (n = 2430). Analysis of cervical smear in the last 3 years was restricted to women eligible for cervical cancer screening (n = 5036). Missing data were excluded.

measures of negative patient satisfaction and trust appears to be a consistent finding in the literature. Studies examining experience of racial discrimination within the health sector^{18,29,31} and in other settings³⁰ have identified significant associations with measures of negative patient experiences. This also has been shown for perceived provider discrimination more widely.^{45,46} Our study adds to the literature by showing that both racial discrimination by a health professional and racial discrimination experience outside

the health sector are independently associated with negative patient experiences. This has implications at the individual patient-provider level and may be an important issue in cultural competency training.

Other strengths of this study relate to the survey design. It was a nationally representative sample of New Zealand adults. The increased sampling of smaller ethnic groups allowed for the calculation of prevalence rates by ethnicity. This is relevant not only locally but also internationally in terms of its contribution to

indigenous health knowledge.⁴⁷ The study also informed our understanding of how racial discrimination may affect health via health care in the New Zealand context and who may be most affected by this. Potential health effects are likely to be greater for those groups that experience more racial discrimination—namely, Maori, Asian, and Pacific peoples. Therefore, it has implications for the provision of equitable health care.

Several limitations also should be considered in the interpretation of our findings. The measures of racial discrimination and health care used here were self-reported and subject to the same validity issues of any self-reported measure.⁶ Particular racial discrimination measurement issues include the impact of recall bias, potential reluctance to report racism, social desirability bias, and the impact of internalized racism on reporting.^{6,10,48} Racism was analyzed in a single time frame (ever) and asked about in a limited number of settings, including a single health care setting measure, and thus may be underestimated.^{6,18,48} Additionally, only personal experiences of racism were surveyed, which do not capture group experience or institutional forms of racism.^{6,18} An area for further study in New Zealand with regard to this is the ethnic composition of health providers. Ethnic concordance between patients and providers has been shown to have a positive impact on patient satisfaction^{49,50} and may be an issue in New Zealand where a disproportionate minority of physicians are from indigenous and Pacific groups.⁵¹

The study was cross-sectional and limited in its ability to determine causality. Although more than 30 longitudinal studies have shown that racism precedes adverse health outcomes,¹⁰⁻¹² longitudinal evidence is limited with regard to health care measures.^{24,27,28,52} Prospective longitudinal studies are needed in this area and could potentially also examine associations between experience of racial discrimination, health service use, and adverse health outcomes.⁴⁵

Notwithstanding its limitations, this study raised some important concerns regarding the potential health care effects of racial discrimination. The findings suggested that reported experience of racial discrimination both by a health care professional and in other settings

TABLE 3—Logistic Regression Models of Associations Between Reported Experience of Racial Discrimination (Ever) and Demographic Variables With Negative Patient Experience in Last 12 Months: 2006/07 New Zealand Health Survey

	Not Always Listened to Carefully (n = 2561), AOR (95% CI)	Care Not Always Discussed as Much as Wanted (n = 2664), AOR (95% CI)	Not Always Treated With Respect and Dignity (n = 954), AOR (95% CI)	Any Negative Experience (n = 3282), AOR (95% CI)
Reported experience of racism				
None (Ref)	1.00	1.00	1.00	1.00
Racism by a health professional	1.54 (1.13, 2.10)	1.54 (1.13, 2.10)	2.62 (1.84, 3.73)	1.57 (1.15, 2.14)
Other racism	1.47 (1.26, 1.70)	1.51 (1.31, 1.74)	1.60 (1.30, 1.95)	1.55 (1.35, 1.79)
Ethnicity				
European (Ref)	1.00	1.00	1.00	1.00
Maori	1.02 (0.88, 1.17)	1.05 (0.91, 1.12)	1.18 (0.95, 1.47)	1.04 (0.91, 1.19)
Pacific	1.05 (0.83, 1.32)	1.19 (0.94, 1.51)	1.29 (0.95, 1.75)	1.17 (0.93, 1.47)
Asian	0.91 (0.75, 1.12)	1.00 (0.82, 1.23)	1.56 (1.20, 2.04)	0.89 (0.74, 1.08)
Age groups, y				
15-24 (Ref)	1.00	1.00	1.00	1.00
25-44	1.03 (0.84, 1.26)	1.06 (0.87, 1.29)	1.10 (0.82, 1.49)	0.99 (0.82, 1.19)
45-64	0.73 (0.59, 0.91)	0.75 (0.61, 0.92)	0.64 (0.47, 0.88)	0.70 (0.58, 0.85)
≥ 65	0.51 (0.41, 0.64)	0.57 (0.46, 0.71)	0.48 (0.34, 0.69)	0.50 (0.41, 0.62)
Education qualification				
No secondary (Ref)	1.00	1.00	1.00	1.00
Some secondary	0.96 (0.81, 1.14)	1.00 (0.85, 1.18)	0.91 (0.70, 1.18)	0.92 (0.79, 1.07)
Tertiary	1.04 (0.89, 1.12)	1.10 (0.94, 1.28)	0.91 (0.71, 1.16)	1.07 (0.93, 1.24)
New Zealand Index of Deprivation 2006, quintiles				
1 (Ref)	1.00	1.00	1.00	1.00
2	0.95 (0.78, 1.17)	0.95 (0.79, 1.14)	1.23 (0.85, 1.78)	0.93 (0.77, 1.12)
3	0.96 (0.79, 1.17)	1.01 (0.84, 1.23)	1.25 (0.85, 1.82)	0.94 (0.78, 1.13)
4	1.02 (0.84, 1.23)	1.08 (0.90, 1.31)	1.17 (0.81, 1.67)	1.02 (0.85, 1.23)
5	1.15 (0.95, 1.40)	1.05 (0.87, 1.28)	1.39 (0.97, 2.01)	1.05 (0.87, 1.27)
Equalized household income				
Lowest income	1.37 (1.17, 1.62)	1.32 (1.12, 1.55)	1.69 (1.30, 2.19)	1.41 (1.21, 1.64)
Middle income	1.23 (1.06, 1.42)	1.14 (0.99, 1.32)	1.58 (1.23, 2.03)	1.22 (1.06, 1.40)
Highest income (Ref)	1.00	1.00	1.00	1.00
Visits to health care provider, no.				
1-2 (Ref)	1.00	1.00	1.00	1.00
3-5	1.11 (0.96, 1.28)	1.21 (1.05, 1.39)	0.84 (0.68, 1.04)	1.13 (0.99, 1.29)
≥ 6	1.59 (1.36, 1.86)	1.60 (1.38, 1.86)	1.31 (1.04, 1.65)	1.58 (1.37, 1.83)

Note. AOR = adjusted odds ratio; CI = confidence interval. Data analysis was restricted to adults (men and women) with a usual primary health care provider and at least 1 visit in the last 12 months (n = 9960). Missing data were excluded.

may influence health care use and may be a pathway through which poor health and inequalities result. Patient perceptions of racial discrimination within health care are important because health care systems should be equitable, perceptions of discrimination can negatively affect future engagement with health care services and subsequent health, and discrimination within health care may be more readily addressed by health care

professionals than would racism in society more generally.¹⁸ However, experiences of racial discrimination outside of the health care system also were associated with negative patient experiences. Eliminating racial discrimination within health care alone may not be sufficient to address the possible effects of racial discrimination on health care use and experience. Addressing racism at a societal level also is necessary. ■

About the Authors

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This article was accepted December 5, 2011.

Contributors

R. Harris originated the study, oversaw the analysis, and led the writing of the article. D. Cormack, N. Talamaivao, J. Minster, and R. Timutimu contributed to study design and interpretation. M. Tobias and L.-C. Yeh enabled access to the data and contributed to study design and interpretation. L.-C. Yeh also led and undertook the data analysis with support from R. Timutimu. All authors helped conceptualize ideas, assisted with revision of the article, and approved the final version.

Acknowledgments

R. Harris and D. Cormack received funding to undertake this work by a Maori health research fellowship from the Maori health directorate of the New Zealand Ministry of Health.

We thank our advisers to this project: Mona Jeffreys, Saffron Karlsen, James Nazroo, Yin Paradies, Bridget Robson, and David Williams. Thanks also to Robert Templeton, who provided analytical expertise and technical advice.

We would like to acknowledge the participants of the 2006/07 New Zealand Health Survey.

Note. The views expressed in this article are the authors' and do not necessarily represent the views or policy advice of the Ministry of Health. The article was submitted for publication with the permission of the Deputy Director General, Maori Health.

Human Participant Protection

Ethics approval was granted by the New Zealand Health and Disability Multi-Region Ethics Committee. We confirm that the research complies with the *Principles of Ethical Practice of Public Health*.

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