Effects of Poverty and Lack of Insurance on Perceptions of Racial and Ethnic Bias in Health Care

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Objective. To investigate whether poverty and lack of insurance are associated with perceived racial and ethnic bias in health care.

Data Source. 2001 Survey on Disparities in Quality of Health Care, a nationally representative telephone survey. We use data on black, Hispanic, and white adults who have a regular physician ($N = 4,556$).

Study Design. We estimate multivariate logistic regression models to examine the effects of poverty and lack of health insurance on perceived racial and ethnic bias in health care for all respondents and by racial, ethnic, and language groups.

Principal Findings. Controlling for sociodemographic and other factors, uninsured blacks and Hispanics interviewed in English are more likely to report racial and ethnic bias in health care compared with their privately insured counterparts. Poor whites are more likely to report racial and ethnic bias in health care compared with other whites. Good physician–patient communication is negatively associated with perceived racial and ethnic bias.

Conclusions. Compared with their more socioeconomically advantaged counterparts, poor whites, uninsured blacks, and some uninsured Hispanics are more likely to perceive that racial and ethnic bias operates in the health care they receive. Providing health insurance for the uninsured may help reduce this perceived bias among some minority groups.

Key Words. Race, ethnicity, perceived racial and ethnic bias, uninsurance, poverty

Patients' perceptions of racial and ethnic bias and discrimination in health care are not uncommon among minority health care users. Based on national studies, as many as 15 percent of Latinos/Latinas and 12 percent of blacks report that they had been judged unfairly or treated with disrespect by a health care provider because of their race or ethnicity (Lillie-Blanton et al. 2000). Twenty-three percent of blacks and 15 percent of Hispanics believe they would have received better medical care if they were of a different race or

ethnicity (LaVeist, Rolley, and Diala 2003). In some special patient populations, perceived discrimination is even more prevalent. A study by Bird, Bogart, and Delahanty (2004), for instance, reveals that more than 70 percent of HIV-positive patients report having experienced discrimination based on their race or color while receiving treatment. Because this study did not control for race, the overrepresentation of blacks among the HIV-positive patients may have contributed to the finding of a high prevalence of perceived racial discrimination.

As one might expect, perceptions of racial and ethnic discrimination are much less common among white Americans. In one national study, only 1 percent of the whites reported having been judged unfairly or treated with disrespect because of their race or ethnicity (Lillie-Blanton et al. 2000). Yet, 16 percent of whites, 30 percent of Hispanics, and 35 percent of blacks believed racism was a "major problem" in health care, suggesting that many Americans are concerned about equity in the health care system.

Perceptions of racial and ethnic bias and discrimination in health care are linked to a number of undesirable outcomes, including lower overall satisfaction with care (Bird et al. 2004), a higher likelihood of putting off medical tests and treatment (Van Houtven et al. 2005), lower likelihood of receiving preventive health care services (such as cholesterol testing, diabetic foot exams, flu vaccinations, and hemoglobin a1c testing [Trivedi et al. 2005]), poorer self-rated health, increased depression, and increased AIDS-related symptoms among HIV patients (Bird et al. 2004), as well as poorer glycemic control, poorer physical functioning, and higher symptom burden among diabetic patients (Piette, Bibbins-Domingo, and Schillinger 2006). This evidence is consistent with the broader literature indicating that the physical and mental health of Americans who experience discrimination in their daily lives tends to suffer (Kessler, Mickelson, and Williams 1999; Krieger 2000; Williams and Neighbors 2001; Williams, Neighbors, and Jackson 2003).

Only a handful of studies have addressed factors beyond race and ethnicity that may contribute to perceptions of racial and ethnic bias in health care. One study found that the odds of reporting racial discrimination in health care decreased with increasing income and self-rated health, even after controlling for race and ethnicity (LaVeist, Rolley, and Diala 2003). Another study

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revealed that black patients who reported perceptions of race-based discrimination in interactions with their health care providers were more educated and more aware of the problem of racial stigmatization compared with other black patients (Bird and Bogart 2001). Little is known about how other factors relate to perceived discrimination in health care.

Two factors that are especially important in the context of health care delivery are poverty and the lack of health insurance. We know that they represent formidable barriers to obtaining high-quality health care (IOM 2002; AHRQ 2003). These structural obstacles affect minorities more commonly than whites (Hargraves 2004). As the numbers of the poor and the uninsured, who are disproportionately nonwhite, continue to rise in America (Strunk and Reschovsky 2004; The Kaiser Commission of Medicaid and the Uninsured 2005; DeNavas-Walt, Proctor, and Lee 2006), it is important to better understand the implications of poverty and lack of insurance for patients' experiences, especially among nonwhites and people with limited English skills, who also face language barriers to high-quality care (David and Rhee 1998; Carrasquillo et al. 1999; Weech-Maldonado et al. 2001).

The purpose of this paper is to investigate whether poverty and lack of insurance are related to perceived racial and ethnic bias in health care. While this problem is not well understood in the context of health care, the sociological literature suggests that socioeconomic disadvantage is linked to perceived racial and ethnic discrimination in other areas of daily living (Kessler, Mickelson, and Williams 1999; Watson, Scarinci, Klesges, Slawson and Beech 2002). This literature leads us to expect that *the poor and the uninsured will be more likely than others to report that they have experienced racial and ethnic bias in health care*. We test the relationships between poverty and lack of insurance using a recent national sample of health care users who have a regular physician. We also examine whether the effects of poverty and lack of insurance vary among people of different racial, ethnic, and language backgrounds.

METHODS

Sample

The data come from the 2001 Survey on Disparities in Quality of Health Care, a random-digit-dial survey with 6,722 adults (age 18 and older) residing in the continental United States. The survey was sponsored by the Commonwealth Fund and administered over the telephone in English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean. Telephone numbers from areas with

higher than average densities of minority households were oversampled. Respondents answered questions about their sources of, access to, utilization of, and experiences with health care, their sociodemographic characteristics, and their health. The response rate was 54.3 percent.

Our analyses include whites, blacks, and Hispanics. We excluded Asians, Native Hawaiians/Pacific Islanders, American Indians/Alaska Natives, and members of the "Other" racial category because their numbers were too small for meaningful statistical analysis. Furthermore, because our multivariate analyses include an indicator of physician-patient racial and ethnic concordance, which is available only for patients with a regular physician, the analyses necessarily exclude respondents without a regular physician. The final nonmissing *N* after these exclusions is 4,556.

Dependent Variables

An indicator of *perceived racial and ethnic bias in health care* was constructed from the following two questions: "Thinking of all of the experiences you have had with health care visits in the last 2 years, have you ever felt that the doctor or medical staff you saw judged you unfairly or treated you with disrespect because of your race or ethnic background?" and "Do you think there was ever a time when you would have gotten better medical care if you had belonged to a different race or ethnic group?" Respondents who answered "Yes" to one of these two questions received a code of 1 for perceived racial and ethnic bias in health care. All others were coded as 0 for this indicator.

Main Explanatory Variables

The lack of health insurance was coded as 1 for respondents who reported being uninsured and 0 for all others. *The insurance type* was categorized as private insurance or public insurance (Medicaid, Medicare, and other public insurances, including CHAMPUS, TRICAP, or VA). A dichotomous indicator of *poverty* was calculated according to the U.S. Census Bureau's definition of poverty for 2001 for each region and household size.

Control Variables

To ascertain *race and ethnicity*, respondents were first asked whether they were Latino/a or Hispanic. Those who did not self-identify as Latino/a or Hispanic were asked whether they were white or black/African American.¹ To approximate English proficiency, we further distinguished between Hispanics who chose a Spanish interview and Hispanics who chose an English interview.

Physician-patient racial and ethnic concordance was based on the race and ethnicity of the respondent and of the respondent's regular physician. Respondents were asked whether their regular physician was white, black/African American, Hispanic, Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native, or some other race. Racial and ethnic concordance was coded as 1 if the patient's and physician's race and ethnicity matched and 0 otherwise.

A composite indicator for *good physician-patient communication* was based on three questions: (i) "The last time you visited a doctor, did the doctor listen to everything you had to say, to most, to some, or only a little of what you had to say?" (ii) "During the visit, did you understand everything the doctor said, most of what the doctor said, some, or only a little of what the doctor said?" (iii) "Did you have questions about your care or treatment that you wanted to discuss but did not?" Respondents who selected "everything" or "most" on the first two questions and "no" on the third question were coded as 1 on this variable; all others were coded as 0.

Categories for *usual place of care* included (i) doctor's office, private clinic or hospital outpatient department; (ii) community health center or public clinic; and (iii) emergency room or other place. *Subjective health status* was reported on a five-point scale ranging from "poor" to "excellent."² We also controlled for years of education, age, gender, being born in the United States, and region (midwest, northeast, south, and west).

Analytic Strategy

After obtaining univariate and bivariate statistics, we estimated a logistic regression model of perceived racial and ethnic bias on poverty and lack of insurance for the entire sample, controlling for sociodemographic and other variables. To clarify whether the role of insurance status and poverty in perceptions of racial and ethnic bias varied among patients of different racial, ethnic, and language backgrounds, we further estimated logistic regression models of the perceptions of racial and ethnic bias in health care for each racial, ethnic, and language group. We used the same independent variables as in the overall model, with the exception of models for Hispanics interviewed in Spanish. Because very few Hispanics interviewed in Spanish reported being born in the United States, this variable was not used in the model for Hispanics interviewed in Spanish. To ensure that the estimates were unbiased and representative of the national population, we used complex survey design commands in *Stata* 8.2 statistical software (StataCorp 2005).

These commands adjusted for stratification by region, clustering within census tracts, and probability weights. Weights were constructed to account for over-sampling in high-density minority areas, the household characteristics of each region, the number of eligible household members, and demographic distortions due to nonresponse.

RESULTS

Table 1 displays the descriptive statistics for variables used in this study along with bivariate statistics comparing respondents who reported racial and ethnic bias in health care to those who did not. In the sample including all racial and ethnic groups, 5 percent of the respondents reported having experienced racial or ethnic bias in health care. Three percent reported having felt that the doctor or medical staff judged them unfairly or treated them with disrespect because of their racial and ethnic background; and 5 percent reported that they thought they would have received better medical care if they had belonged to a different racial and ethnic group (results not shown). The relatively low rates of reported bias were driven by the preponderance of whites, who accounted for 78 percent of our sample and who were considerably less likely to report having experienced racial or ethnic bias than minorities. Living in poverty and being uninsured were also positively associated with perceived racial and ethnic bias in health care. People usually receiving care in community health centers or public clinics and those residing in the south were more likely than others to report perceived racial and ethnic bias in health care. In contrast, individuals who usually received their care in doctors' offices, private clinics, or outpatient departments, saw a physician of their own race and ethnicity, reported good communication with their physicians, had private insurance, were born in the United States, and resided in the northeast were less likely than their counterparts to report racial and ethnic bias in health care. Perceived racial and ethnic bias was also negatively associated with age, education, and subjective health.

Table 2 contains the results of multivariate logistic regression models of perceived racial and ethnic bias in health care. The model for all respondents, displayed in the first column, shows that net of the effects of the control variables, *the uninsured individuals had a 2.39 times higher odds of reporting racial and ethnic bias in their health care when compared with the privately insured individuals*. Respondents living in poverty were more likely to report

Table 1: Characteristics of the Final Sample

	<i>All</i> (<i>N</i> = 4,556)	<i>Perceived Racial and Ethnic Bias in Health Care?</i>	
		<i>No</i> (<i>N</i> = 4,176)	<i>Yes</i> (<i>N</i> = 380)
Perceived racial and ethnic bias in health care (%)	5		
Household below poverty (%)	10	9	22 ^{†††}
Insurance status (%)			
Private insurance	69	70	48 ^{†††}
Public insurance	19	20	15
Uninsured	12	10	37 ^{†††}
Physician–patient racial and ethnic concordance (%)	59	61	24 ^{†††}
Good physician–patient communication (%)	82	84	51 ^{†††}
Usual place of care (%)			
Doctor's office/private clinic/hospital outpatient department	83	83	69 ^{†††}
Community health center/public clinic	8	8	18 ^{†††}
Emergency room/other place	9	9	13
Subjective health status (mean)	3.53	3.55	3.14
	[0.02]	[0.02]	[0.08]**
Age in years ^a (mean)	45.58	45.87	40.54
	[0.37]	[0.38]	[1.20]***
Education in years ^b (mean)	13.42	13.47	12.45
	[0.06]	[0.06]	[0.25]**
Female (%)	58	59	55
Born in the United States (%)	91	92	75 ^{†††}
Region (%)			
Midwest	24	24	18
Northeast	19	20	13 [†]
South	37	36	46 [†]
West	20	20	23
Race, ethnicity, and language (%)			
White, non-Hispanic	78	81	29 ^{†††}
Black, non-Hispanic	12	10	39 ^{†††}
Hispanic, English interview	6	6	14 ^{†††}
Hispanic, Spanish interview	4	3	17 ^{†††}

Source: Health Care Quality Survey (The Commonwealth Fund, 2001). Analyses are limited to blacks, Hispanics, and whites. All estimates are corrected for survey design. Standard errors appear in square brackets.

^aTop coded at 97 years.

^bTop coded at 19 years.

Wald statistic for Pearson χ^2 test for independence comparing respondents who reported perceived racial and ethnic bias in health care to those who did not:

[†] $p < .05$; ^{†††} $p < .001$ (two-tailed tests).

t -test for differences in means comparing respondents who reported perceived racial and ethnic bias in health care to those who did not:

** $p < .01$; *** $p < .001$ (two-tailed tests).

Table 2: Estimates of Odds Ratios from Logistic Regression Models of Perceived Racial and Ethnic Bias in Health Care for All Respondents and by Respondents' Race, Ethnicity, and Language

	<i>All</i> (<i>N</i> = 4556)	<i>Black,</i> <i>Non-Hispanic</i> (<i>N</i> = 808)	<i>Hispanic,</i> <i>English</i> <i>Interview</i> (<i>N</i> = 577)	<i>Hispanic,</i> <i>Spanish</i> <i>Interview</i> (<i>N</i> = 284)	<i>White,</i> <i>Non-Hispanic</i> (<i>N</i> = 2887)
Household below poverty	1.48 [0.26]	0.84 [0.37]	0.54 [0.54]	0.94 [0.47]	3.97** [0.50]
Insurance status ^a					
Uninsured	2.39*** [0.24]	3.19** [0.34]	2.93* [0.48]	1.65 [0.59]	1.75 [0.56]
Public insurance	0.83 [0.29]	0.95 [0.37]	0.62 [0.78]	0.56 [0.77]	0.64 [0.56]
Physician–patient racial and ethnic concordance	0.63 [0.25]	1.27 [0.34]	1.41 [0.63]	0.78 [0.54]	0.36** [0.41]
Good physician–patient communication	0.29*** [0.19]	0.22*** [0.29]	0.36** [0.39]	0.21*** [0.41]	0.34* [0.38]
Usual place of care ^b					
Community health center/public clinic	1.03 [0.24]	1.40 [0.41]	4.78** [0.51]	1.26 [0.51]	0.18 [0.72]
Emergency room/other place	0.66 [0.31]	1.07 [0.41]	0.41 [0.78]	0.60 [0.66]	0.56 [0.58]
Subjective health status	0.88 [0.09]	0.96 [0.14]	0.82 [0.24]	1.36 [0.20]	0.74 [0.19]
Age (years)	1.00 [0.01]	1.01 [0.01]	1.01 [0.01]	0.99 [0.02]	0.99 [0.01]
Education (years)	1.03 [0.04]	1.18** [0.06]	0.99 [0.10]	0.92 [0.07]	1.02 [0.07]
Female	0.72 [0.19]	0.84 [0.28]	0.85 [0.46]	1.01 [0.50]	0.42* [0.38]
Born in the United States	0.96 [0.29]	3.92* [0.64]	0.77 [0.40]		0.60 [0.69]
Region ^c					
Northeast	0.64 [0.34]	1.62 [0.47]	0.03** [0.99]	5.78 [1.10]	0.61 [0.64]
South	0.87 [0.30]	1.38 [0.38]	0.07** [0.79]	5.49 [1.05]	0.92 [0.51]
West	0.82 [0.34]	1.22 [0.48]	0.08** [0.76]	3.98 [1.00]	1.00 [0.53]
Race, ethnicity, and language ^d					
Black, non-Hispanic	7.99*** [0.26]				
Hispanic, English interview	4.30*** [0.33]				
Hispanic, Spanish interview	7.89*** [0.42]				
Intercept	0.10** [0.86]	0.01*** [1.27]	4.47 [1.79]	0.23 [1.47]	0.69 [1.54]

Source: Health Care Quality Survey (The Commonwealth Fund 2001). Analyses are limited to blacks, Hispanics, and whites. All estimates are corrected for survey design. Standard errors appear in square brackets.

^aReference category is privately insured.

^bReference category is doctor's office/private clinic/hospital outpatient department.

^cReference category is midwest.

^dReference category is white, non-Hispanic.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

racial or ethnic bias than other respondents, but this difference was not statistically significant. Several control variables in the model for all respondents performed as previous research (Lillie-Blanton et al. 2000; LaVeist, Rolley, and Diala 2003; Johnson, Roter, Powe, and Cooper 2004) would predict. The odds of reporting racial or ethnic bias were higher for minority individuals compared with whites (almost eight times higher for blacks and Hispanics interviewed in Spanish, and over four times higher for Hispanics interviewed in English). Among the other variables, the quality of physician–patient communication displayed the strongest association with perceived racial and ethnic bias in health care. *Good physician–patient communication was associated with a 71 percent decrease in the odds of reporting racial and ethnic bias in health care.*³ Other characteristics were not related to perceived racial and ethnic bias.

The remainder of Table 2 displays separate models for blacks, Hispanics interviewed in English, Hispanics interviewed in Spanish, and whites. Compared with the privately insured, the odds of reporting racial and ethnic bias in health care for the uninsured increased by a factor of 3.19 among blacks and 2.93 among Hispanics interviewed in English. Moreover, *whites living in poverty had 3.97 higher odds of reporting perceived racial and ethnic bias in health care compared with other whites.* Poverty, however, was not associated with perceived bias among minority respondents.

The effects of several control variables varied by respondents' race, ethnicity, and language. Good physician–patient communication was negatively related to perceived racial and ethnic bias in health care among all racial and ethnic groups. Its effects were largest among Hispanics interviewed in Spanish, followed by blacks, whites, and Hispanics interviewed in English. Physician–patient racial and ethnic concordance was associated with a decreased odds of perceived racial and ethnic bias in health care among white respondents, but not among minority respondents. Among Hispanics interviewed in English, those who usually obtained their care in a community health care center or public clinic had a higher odds of perceived racial and ethnic bias in health care compared with those who usually obtained their care in a doctor's office. Education and being born in the United States were positively associated with perceptions of racial and ethnic bias among blacks but not among other groups. White females were less likely to report racial and ethnic bias in health care compared with white males. Hispanics interviewed in English who lived in the northeast, west, or south were less likely to report racial and ethnic bias in health care than their counterparts living in the midwest.

DISCUSSION AND CONCLUSIONS

This study examined how poverty and the lack of health insurance coverage were related to perceptions of racial and ethnic bias in health care in a national sample of blacks, Hispanics, and whites who had a regular physician. Our results indicated that uninsured blacks and Hispanics were more likely to report that they had experienced racial and ethnic bias in the health care they received than did their privately insured counterparts. In addition, poverty was associated with an increased likelihood of perceived racial and ethnic bias among white respondents but not among members of the other racial and ethnic groups.

We cannot determine to what degree the respondents' reports of racial and ethnic bias reflected actual instances of biased behavior by their health care providers or to what degree they resulted from other factors not examined in this study. The actual nature of the association of provider behavior with perceptions of racial and ethnic bias among patients is not well understood; yet, we know that in contemporary America, subtle, often unconscious, forms of bias against racial and ethnic minorities are prevalent (e.g., Bargh, Chen, and Burrows 1996; Bobo 2001; Dovidio 2001; Dovidio and Gaertner 2002). Even individuals who explicitly disavow racial and ethnic stereotypes can unwittingly exhibit biased perceptions and behaviors under certain conditions (Stepanikova 2006). Arguably, stereotypes and biased perceptions may affect how some health care providers interpret information about minority patients, how they behave during patient visits, and how they make decisions about what types of treatment are appropriate (Schulman et al. 1999; Bogart, Kelly, Catz, and Sosman 2000; Rathore et al. 2000; van Ryn and Burke 2000; van Ryn and Fu 2003).

For a variety of reasons, some minority patients may have concluded that racial and ethnic biases negatively influenced the quality of their health care, even if they received care that was appropriate. This is not surprising, given that minority individuals commonly experience discrimination in their daily lives (Kessler, Mickelson, and Williams 1999). As a result, they may develop a kind of stigma consciousness that makes them more likely to interpret daily events through the lens of race and ethnicity (Bird and Bogart 2001). Importantly, some patients experience barriers to high-quality health care that are *unrelated* to their race and ethnicity; yet, because of their high-stigma consciousness, they may attribute these difficulties to racial and ethnic discrimination. Lack of insurance could be one such barrier that potentially contributes to an increased likelihood of reporting racial and ethnic bias among the uninsured blacks and Hispanics in our study.

Evidence from social psychology (e.g., Bargh, Chen, and Burrows 1996; Blair and Banaji 1996) suggests that if providers have racial and ethnic biases, they may play a stronger role in the delivery of care when providers face increased levels of stress (Stepanikova 2006). Consequently, we might expect to find a larger racial and ethnic disparity in the quality of care in health care settings that serve large numbers of socioeconomically disadvantaged patients, because the providers working in these settings may experience increased levels of stress and fatigue. They often see large numbers of patients, have inadequate administrative support, and face other stressors. The poor and the uninsured receiving their care in such resource-poor settings may therefore be more likely to experience, and to report, racial and ethnic bias in health care, potentially contributing to the association of poverty and lack of insurance with perceived racial and ethnic bias revealed by our study. Also consistent with this argument is our finding that Hispanics interviewed in English who receive care in community clinics, which are typically resource-poor, are more likely to report bias compared with those who receive their care in private practices or outpatient hospital departments, which are typically more resource-rich.

Our data do not enable us to determine precisely which of these explanations, if any, reflect an accurate understanding of the processes leading to the associations between socioeconomic disadvantage and perceived racial and ethnic bias found in our study. Our data also do not specify *why* lack of health insurance was associated with perceived racial and ethnic bias among some minority respondents but not among white respondents, and *why* poverty was associated with perceived racial and ethnic bias among whites, but not among racial and ethnic minorities, although these findings are not particularly surprising to those who study poverty and inequality more broadly. The broader literature which is not limited to health care suggests that some whites believe they have been victims of reverse discrimination (Fraser and Kick 2000). In addition, we know that poverty is often viewed as a stigma, perhaps even more so by whites (Amato and Zuo 1992).

An important limitation in this study concerns the lack of information in the survey about the identities of the regular physician, the physician seen in the last visit, and the physician delivering care on the occasion that lead to the report of bias. Without such information, we cannot determine whether in the questions about racial concordance, communication, and bias a respondent referred to a single physician or to multiple physicians. It seems reasonable to expect that many respondents referred to a single physician but those who referred to multiple physicians potentially increased the measurement error in our data.

The subjective nature of the patients' reports of racial and ethnic bias in health care can be considered another limitation, because these reports do not necessarily measure whether the patient's racial and ethnic background actually had an independent impact on the quality of health care delivered to the patient. At the same time, the fact that these reports reflect patients' subjective experiences can be considered a strength of the study. In recent years, scholars and policy makers have called for increased attention to patients' experiences with health care as one part of their efforts to improve the quality of care. They have also stressed the importance of culturally sensitive care, arguing that such care could improve the overall quality of health care for minority patients. Yet, as LaVeist, Rolley, and Diala (2003) point out, there are few studies of cultural competence from the perspective of patients. Our study sought to contribute to the understanding of one aspect of patients' experiences with cultural sensitivity (or the lack of it) as reflected in their subjective perceptions of racial and ethnic bias in the health care they receive.

Another strength of our study is the use of a national sample, which makes the results more generalizable to the U.S. population (and subsets of it) compared with some of the earlier studies that used samples consisting of special patient populations. At the same time, the scope of our study is limited to blacks, Hispanics, and whites. Our results are not generalizable to individuals of other racial and ethnic backgrounds. In addition, because we only studied people with a regular physician, our results do not generalize to people *without* a regular physician. More research is needed to determine whether an association between perceived racial and ethnic bias and socioeconomic disadvantage extends to those without a regular physician, especially because these individuals tend to be affected by poverty and lack of insurance more often than others.

What are the implications of the findings described in this study? In addition to the benefits of health insurance for access to health care services and for the overall health of the population, which have been amply documented, universal health insurance coverage may help reduce perceptions of racial and ethnic bias among some minority patients. These implications are preliminary and must be supported by future research on the direction of causality and on how various aspects of socioeconomic disadvantage are linked to racial and ethnic disparities in the quality of health care.

Our results reveal that several factors beyond the lack of insurance and poverty contribute independently to patients' perceptions of racial and ethnic bias in health care. Especially important is the quality of physician-patient communication. Previous research suggests that physician-patient communi-

cation characterized by clarity, attentiveness, and empathy is associated with patients' more positive experiences, including higher perceived respectfulness of the health care providers (Johnson, Roter, Powe, and Cooper 2004), higher patient satisfaction, and reduced emotional distress following consultation (Zachariae et al. 2003). Communication breakdowns may lead to patients' perceptions of racial and ethnic discrimination, regardless of whether providers' racial and ethnic biases actually influenced the quality of care delivered to the patient. If further research finds causal effects between physician-patient communication and patients' perceptions of racial and ethnic bias, we will have evidence suggesting the importance of training physicians in culturally sensitive communication skills to improve those aspects of the quality of health care that are reflected in patients' experiences, and, ultimately, to assist in designing a health care system that provides high-quality care to all patients regardless of their race, ethnicity, and socioeconomic status. Programs currently being developed to increase the extent to which physicians in training are culturally sensitive to their patients' needs and behaviors should be investigated as part of the broader effort to improve health care.

ACKNOWLEDGMENTS

We are grateful to The Commonwealth Fund for providing the data for this research.

NOTES

1. Response categories also included "Asian," "Native Hawaiian or other Pacific Islander," "American Indian or Alaskan Native," and "some other background," but respondents in these categories were excluded from the analysis.
2. This variable was treated as continuous.
3. We also estimated a constrained model without variables that might suffer from the endogeneity problem, including racial/ethnic concordance, communication, and usual source of care. With a single exception of a coefficient for health, which was significant in the constrained model but not in the full model, no other coefficient differed in its direction and statistical significance. This result suggests that the statistical effects of the explanatory variables, i.e., poverty and the lack of insurance, are robust to the inclusion and exclusion of racial/ethnic concordance, communication, and usual source of care.

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