

## Odds of Having a Regular Physician and Perceptions of Care: Ethnic Patterns for Women Ages 25–45

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**Background and Objectives:** *This study's purpose was to simultaneously investigate demographic, socioeconomic status, health status, and access-to-care factors to see if they could explain racial/ethnic differences in the odds of reproductive-aged women having a regular physician and perceptions of those women about their care. **Methods:** Data come from a nationally representative sample of 4,520 women ages 25–45. We used logistic regression models to ascertain the odds of having a regular doctor and feeling cared for among black, Hispanic, and Asian women as compared to non-Hispanic white women. Models contained controls for factors found significant in prior research and interaction terms. **Results:** Hispanic women have significantly lower odds of having a regular doctor than white non-Hispanic women, a gap primarily explained by differences in language and insurance status. Asian and Hispanic women have significantly lower odds of reporting feeling cared for by their doctor, and black women have higher odds of reporting feeling cared for by their doctor than white women. Significant interaction terms of race/ethnicity by economic level, residence, and health status show that the associations between race/ethnicity and having a regular doctor, and feeling cared for by that doctor, depend on other characteristics. **Conclusions:** The odds that women of reproductive age will have a regular doctor and report feeling cared for by that doctor differ by race/ethnicity and socioeconomic characteristics. Black women have higher odds, and Spanish-speaking women have lower odds of having a regular doctor than white women, and Hispanic and Asian women have lower odds of feeling cared for.*

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Quality of medical care and health outcomes for a variety of physical and mental health conditions are directly associated with patients receiving regular care.<sup>1,2</sup> Patients' perceptions of their physicians can influence health outcomes by increasing patients' willingness to disclose information or to follow advice and return for care.<sup>3,4</sup> Evidence suggests that racial/ethnic minorities are less likely to have regular care providers<sup>5</sup> and that the relationship between patients and physicians is an important component of regularity and quality of care.<sup>4</sup>

Some of the relationship between race/ethnicity and regularity and/or quality of care is explained by socioeconomic status (SES) and racial biases in the health care system.<sup>6,7</sup> Other potentially confounding factors

are immigration status<sup>8</sup> and insurance coverage.<sup>6</sup> Patients who have limited English proficiency also have more difficulty obtaining adequate health care,<sup>9</sup> are less likely to have a regular doctor,<sup>10</sup> and are less likely to receive preventive care.<sup>11</sup> Most studies of care regularity, however, fail to include all factors (race/ethnicity, demographics, health status, and access to care) in a single analysis. Further, most studies have not included Asians as a distinct group for analysis.

While there is substantial literature on patient trust and satisfaction with care, we know of no studies that analyze racial/ethnic differences in patients' perceptions of feeling cared for by their physician. The literature indicates that racial and ethnic minorities are less likely than white patients to trust their physician.<sup>12</sup> Evidence on satisfaction with care is mixed. Some research indicates that blacks and Hispanics tend to report greater satisfaction with provider interaction, but other research shows lower satisfaction than whites.<sup>13</sup> If patients' perception of a physician's caring is lower among racial/ethnic minorities, this is likely to perpetuate racial/ethnic disparities in treatment seeking<sup>14</sup> and in health.<sup>4</sup>

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In this report, we assess whether there is an association between race/ethnicity and the odds of having a regular physician and, among those with a regular physician, of feeling cared for by that physician. Additionally, we examine whether numerous demographic, socioeconomic, health status, and access-to-care factors previously identified as relevant are moderators of these relationships.

We hypothesize that there is a direct association between race/ethnicity and the odds of having a regular physician and the perception of care by that physician. Specifically, we expect black and Hispanic women to be less likely than non-Hispanic white (hereafter referred to as white) and Asian women to have a regular physician. We also expect that black, Hispanic, and Asian women will be less likely than white women to perceive their physicians as caring. These associations should be partially mediated by and partially depend on socioeconomic status, access, and health status.

## Methods

### Sample

Our data come from our ongoing National Survey of Fertility Barriers (NSFB), a random-digit-dialing (RDD) telephone survey conducted in the continental United States, with participants consisting of a sample of women ages 25 to 45 and a sub-sample of their partners.<sup>15</sup> The main aim of the NSFB study was to explore emotional and behavioral responses to reproductive barriers among women. Census tracts with high proportions of racial/ethnic minorities were over-sampled to provide sufficient numbers of cases to perform subgroup analyses. We do not have detailed information on specific Hispanic and Asian subgroups and recognize that collapsing unique groups under these umbrella terms is a limitation of the study method. Women who have experienced infertility or who are at higher risk for experiencing infertility were over-sampled so that the second wave of interviews would contain sufficient new episodes of infertility for analyses. Because of these selection criteria, data are weighted.

The interview script was translated into Spanish and then translated back into English to ensure an accurate translation. Anyone answering the phone in a language other than English was offered the option of conducting the interview in Spanish. All of the Spanish-speaking interviewers were bilingual. Interviewers conducting the interviews in Spanish had a Spanish-language version of the survey available in the computer assistant telephone interviewing system.

The sample for the current study includes only the 4,520 white, black, Hispanic, and Asian women who responded to questions about having a regular physician and about feeling cared for. Subjects that refused to answer any one of the questions or all of the scale items (n=117), as well as those who responded "other" or "refused/don't know" for the race/ethnicity question (n=68), are excluded from the analysis.

### Measurement

The outcome variables are having a regular physician and perceptions of feeling cared for (Table 1). Responses to the question about having a regular physician were yes and no; therefore this variable is dichotomous. Because the "cared for" responses were highly skewed, we dichotomized this variable into those who reported that their doctor "cares a lot" versus those who said that the doctor cares a "little" or "not at all." The focal independent variable, race/ethnicity, was measured by three dummy variables (black, Hispanic, and Asian compared to the reference category, white). Respondents reported their race/ethnicity using two questions from the census: "What race or races do you consider yourself to be?" and "Do you consider yourself to be either Hispanic or Latino or neither one?" We also include variables that should explain racial/ethnic differences according to prior research.<sup>6,8,10,11,16-18</sup> These include demographic and socioeconomic variables, measures related to health status, and access to care measures.

### Data Analysis

The analysis was conducted in stages. We started by examining the characteristics of our sample. Descriptive statistics for the sample are provided in Table 1. Differences in proportions for each variable by race/ethnicity category were tested using the chi-square test. Differences in means by race/ethnic category were assessed using ANOVAs and the Tukey's Honestly Significant Differences (HSD) test to assess specific mean differences while adjusting for multiple comparisons.

Using sequential logistic regression, we then examined our first hypothesis that the odds of having a regular physician varies by race/ethnicity. In the first model, we included race/ethnicity variables only. In the second model, we included the demographic, health status, socioeconomic status, and access variables to assess whether initial race/ethnicity associations are explained by other characteristics that differ between groups. The final model tests whether the way that race/ethnicity is associated with the odds of having a regular physician depends on values of other variables by examining interaction terms. We followed the same three steps in our analysis of racial/ethnic differences in perceived care by the physician among women with a regular physician. Only interactions that were significant at the  $P < .05$  level for either outcome are provided in Tables 2 and 3.

## Results

### Bivariate Results

The chi-square and ANOVA results show that there are racial/ethnic differences for all of the study variables, but the pattern of differences between specific groups differs by independent variable (Table 1). Most women have a regular physician, but the proportion of Hispanic women with a regular doctor is substantially

less than that of the other groups. Contrary to expectations, a higher proportion of Black women report that their physician is caring than any other group; consistent with expectations, the lowest proportions are for Hispanic and Asian women.

More Hispanic and black women, but fewer white and Asian women, report that their health is fair or

poor. The pattern is different when health is measured by chronic conditions. Higher proportions of white and black women and lower proportions of Hispanic and Asian women report a chronic health condition.

Socioeconomic indicators also vary significantly by race/ethnicity. Asian women have the highest average years of education, followed by white, black, and His-

Table 1

Means, Proportions, and Standard Deviations of Study Variables, National Survey of Fertility Barriers, n=4,520 Women, Weighted

	White (n=2767)	Black (n=653)	Hispanic (n=842)	Asian (n=258)	
	Mean/ Proportion	Mean/ Proportion	Mean/ Proportion	Mean/ Proportion	
<i>Variable</i>					
Has a regular doctor <sup>1</sup>	.85	.88	.71	.84	***
Perceives doctor as caring a lot <sup>2</sup>	.76	.83	.62	.61	***
Married <sup>3</sup>	.72	.32	.59	.67	***
Cohabiting <sup>3</sup>	.01	.01	.06	.00	***
Non-parent <sup>4</sup>	.17	.12	.08	.30	***
Part-time employed <sup>5</sup>	.16	.10	.15	.10	***
Unemployed <sup>5</sup>	.01	.05	.01	.02	***
Keeping house <sup>5</sup>	.22	.12	.33	.13	***
Religiosity <sup>6</sup>	-.13 <sup>a</sup>	.31 <sup>b</sup>	.10 <sup>c</sup>	-.33 <sup>d</sup>	***
Health fair/poor <sup>7</sup>	.14	.24	.31	.05	***
Chronic health condition <sup>8</sup>	.28	.28	.18	.07	***
Age	36.05 <sup>a</sup>	35.04 <sup>b</sup>	33.94 <sup>c</sup>	34.74 <sup>bc</sup>	***
Education in years	14.15 <sup>a</sup>	13.49 <sup>b</sup>	11.27 <sup>c</sup>	16.28 <sup>d</sup>	***
Economic hardship <sup>9</sup>	-.02 <sup>a</sup>	.17 <sup>b</sup>	.11 <sup>b</sup>	-.10 <sup>c</sup>	***
Public health insurance <sup>10</sup>	.09	.28	.16	.07	***
No health insurance <sup>10</sup>	.10	.13	.33	.11	***
Spanish interview <sup>11</sup>	.00	.00	.19	.00	***
Rural residence <sup>12</sup>	.20	.07	.07	.08	***

\*\*\* P<.0001

Note: Categories with the same letter (a, b, c, d) are NOT significantly different from each other using Tukey Honest Significant Difference.

Note: For continuous variables, the Anova Post Hoc Tukey Honest Significant Differences are indicated by different letters; P values for categorical variables were estimated by chi-square tests.

Note: n=4,098 for the "Perceives doctor as caring a lot" variable because this question was only asked of those with a regular doctor

1. "Do you have a regular doctor; that is, a specific doctor whom you consult for most of your health care needs?" (1=yes, 0=no)
2. "Overall, does your doctor seem to really care how you're doing? Would you say she/he cares a lot (=1), cares a little (=0), or doesn't care (=0)?"
3. Reference category is single (separated, divorced, or never married).
4. Reference category is no children of any kind (no biological, step, adopted, foster, or informal foster children).
5. Reference category is full-time employed.
6. Religiosity is the average of the z-scores of the following questions: In general, how much would you say your religious beliefs influence your daily life? How often do you attend religious services? About how often do you pray? How close do you feel to God most of the time? (alpha=.78)
7. "In general, would you say your own health is excellent, good, fair, or poor?" Reference category is good or excellent health.
8. "Do you have any chronic health problems?" (1=yes, 0=no)
9. Economic hardship was measured by the mean of the following items: During the last 12 months, how often did it happen that: you had trouble paying the bills? you did not have enough money to buy food, clothes, or other things your household needed? did you not have enough money to pay for medical care?" (alpha=.82)
10. "Are you covered by private health insurance, by public health insurance such as Medicaid, some other kind of health care plan, or by no health insurance?" (Reference category is private health insurance).
11. Survey participants who selected to do the interview in Spanish (=1) compared to English (=0).
12. Reference category is metropolitan area.

Table 2

Logistic Regression of the Odds of Having a Regular Doctor, National Survey of Fertility Barriers, n=4,520 White, Black, Hispanic, Asian Women, Weighted

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
<i>Variables</i>	<i>OR</i>	<i>OR</i>	<i>OR</i>
<b>Race/ethnicity</b>			
White (reference)			
Black	1.197	1.517**	1.830**
Hispanic	.407***	.963	1.407*
Asian	.922	1.081	.994
<b>Control variables</b>			
Married		1.006	1.051
Cohabiting		1.761	1.958*
Nonparent		.814	.829
Part-time employed		1.178	1.233
Unemployed		.791	.724
Keeping house		1.021	1.019
Religiosity		1.307***	1.290***
<b>Health status variables</b>			
Health fair/poor		.884	1.274
• Black			1.115
• Hispanic			.457**
• Asian			.326
Chronic health condition		2.616***	3.151***
• Black			.695
• Hispanic			.516*
• Asian			.257
Age		1.027***	1.029***
<b>SES variables</b>			
Education		1.049**	1.052**
Economic hardship		.721**	.854
• Black			.486*
• Hispanic			.768
• Asian			.304*
<b>Access variables</b>			
Public health insurance		.534***	.524***
No health insurance		.241***	.231***
Spanish interview		.353***	.363***
Rural residence		1.122	1.106
• Black			1.110
• Hispanic			.528
• Asian			18.771**
Constant	5.8732	2.6184**	2.2724**

OR—odds ratio

Note: \*\*\*  $P < .001$ , \*\*  $P < .01$ , \*  $P < .05$ .

Note: Education and economic hardship are mean centered.

panic women. A similar pattern, but in reverse, emerges for economic hardship, although black and Hispanic women do not differ significantly from each other. A higher proportion of black women than the other groups have public health insurance. The proportion of women without health insurance is highest among Hispanic women. Approximately one fifth (19%) of Hispanic women were interviewed in Spanish rather than in English. The proportion of women living in rural areas is highest among white women.

#### *Having a Regular Doctor*

There is an association between race/ethnicity and the odds of having a regular doctor (Table 2). As expected, model 1 shows that Hispanic women have lower odds and Asian women have the same odds as white women of having a regular physician. Contrary to our hypothesis, however, black women do not differ from white women in the odds of having a regular physician. In models 2 and 3 there is a significant difference between black and white women, but the pattern is unexpected: black women have higher odds of having a regular doctor than white women. Model 2 reveals that women who took the Spanish-language survey had much lower odds of having a regular doctor than women who took the English-language survey, suggesting that the apparent ethnicity effect for Hispanic women revealed in model 1 may be due to language difficulty.

The association between race/ethnicity and having a regular physician depends on economic hardship, self-reported health, chronic health status, and rural residence (see Table 2, Model 3). Post-hoc tests of the significant interactions of race/ethnicity by economic hardship show that the decline in the odds of regular care associated with increases in economic hardship is significant only for black and Asian women. White and black women who report fair/poor health have higher odds of having a regular doctor than those reporting good/excellent health. This pattern is reversed for Asian women. All women who report having a chronic health condition have higher odds of having a regular doctor than women without a chronic health condition, but the effect is much greater for white women and smaller for Hispanic women than for black or Asian women. Asian women living in a rural area have lower odds of having a regular doctor than white women (figures for the interactions are available upon request).

Doctor Perceived as Caring

Among those with a regular physician, race and ethnicity are associated with perceiving that doctor as caring (Table 3). Hispanic and Asian women have

much lower odds than white women of perceiving their physician as caring. Black women have significantly higher odds than white women of reporting that their physician is caring. Including demographic, health status, socioeconomic status, and access variables does not change these significant associations (see Table 3, model 2).

The interactions in model 3 show that perceived caring declines significantly with increases in economic hardship among black women only. The association between having a chronic health condition and the odds of perceived caring is significantly higher for black compared to white women. The association between rural residence and the odds of perceived caring is significant only for Hispanic women.

Table 3

Logistic Regression of the Odds That the “Doctor Cares,” National Survey of Fertility Barriers, n=4,098 White, Black, Hispanic, Asian Women With Regular Doctors, Weighted

Variables	Model 1 OR	Model 2 OR	Model 3 OR
<b>Race/ethnicity</b>			
White (reference)			
Black	1.519***	1.418**	1.417*
Hispanic	.510***	.533***	.433***
Asian	.502***	.567***	.525**
<b>Control variables</b>			
Married		.888	.906
Cohabiting		.475*	.487*
Nonparent		.775*	.790*
Part-time employed		1.185	1.195
Unemployed		1.614	1.618
Keeping house		1.282*	1.294*
Religiosity		1.219***	1.224***
<b>Health status variables</b>			
Health fair/poor		.632***	.575***
Chronic health condition		1.510***	1.340*
• Black			2.260*
• Hispanic			1.402
• Asian			.811
Age		1.012	1.011
<b>SES Variables</b>			
Education		1.015	1.017
Economic Hardship		.994	1.064
• Black			.353***
• Hispanic			1.100
• Asian			1.647
<b>Access variables</b>			
Public health insurance		1.270	1.284
No health insurance		.903	.877
Spanish interview		1.521	1.419
Rural residence		1.199	1.014
• Black			1.517
• Hispanic			2.217*
Constant	3.141***	2.030**	2.223**

Note: \*\*\*  $P < .001$ , \*\*  $P < .01$ , \*  $P < .05$ .  
 Note: Education and economic hardship are mean centered.

Discussion

The good news is that, overall, 83% of women in our study report having a regular physician, and 81% of those women report that their physician is very caring. Unfortunately, our results still show that race and ethnic status still are related to having a regular physician and believing that your regular physician is very caring, although not always in the ways we hypothesized.

Our finding that black and white women have the same odds of having a regular physician and that black women have higher odds of having a regular physician when socioeconomic variables are held constant was unexpected. We believe this may reflect recent efforts to reduce the effects of racial bias in health care since the National Health Interview Survey (NHIS) data from the same year reveals similar patterns.<sup>19</sup>

The lower odds of having a regular doctor among Hispanic women is consistent with our expectations. Language emerges as the most likely explanation for this difference, an interpretation consistent with the findings of Fiscella and colleagues.<sup>20</sup> It should be noted, however, that this variable does not measure English proficiency but rather indicates comfort discussing personal and health-related issues in Spanish or English.

The perception that one’s physician cares followed similar patterns to those of having a regular physician: Asian and Hispanic women have significantly lower odds of reporting feeling cared for by their physician, and black women have higher odds of reporting feeling cared for by their physician than white women. Because our measure is based on perception of caring, some caution needs to be exercised interpreting the results. Our data do not allow us to determine whether the level or quality of care differed by race but only that there is variation in the perception that physicians care.

These data provide no information on the criteria for what constitutes evidence of caring. One potential reason for racial/ethnic differences in perceptions of caring by physician may be communication patterns within encounters. For example, expressions of posi-

tive affect have been shown to vary by the patient's ethnicity.<sup>21</sup> Thus, it is possible that physicians may be more communicative of their caring with certain racial and ethnic groups. Alternatively, patients of different ethnic and racial groups may value different types of expressions of caring differentially. Murray-Garcia and colleagues<sup>22</sup> found that non-whites placed more importance on "doctors' display of concern, courtesy, and respect."

An alternative explanation may be gender/ethnic/racial concordance with physicians<sup>23</sup> or duration of relationships. Although our respondents may have had a regular physician, we did not collect any information on their regular physician's gender or racial/ethnic identity, nor did we measure the length of time since the relationship had been established. Respondents' expectations for care may also affect findings if groups differ in their expectations; the difference between expectations and actual care received could have an influence on assessments of caring.<sup>24</sup> Unfortunately, our data do not include questions on expectations of care.

All of these possible explanations need further study before ruling them out as the cause of the difference in perceived caring. We also believe that further studies should collect data with the intent of being able to differentiate between the subgroups of each racial/ethnic identity. Because the survey was only conducted in English and Spanish, the effect of preferring other languages is not assessed.<sup>25</sup>

## Conclusions

Our work shows the importance of assessing black, Hispanic, Asian, and white women's experiences with physicians separately, based on the women's race/ethnicity. We show that each of the four groups of women has a distinct pattern of responses to questions about having a regular physician and perception of the physician as caring. From a practical point of view, our research points to the need for health providers to try to understand the distinctive cultures and expectations that patients of different racial/ethnic backgrounds bring to the medical encounter. Only by understanding what members of distinct groups bring to and expect from the physician-patient relationship can we expect to improve the quality of health care and reduce racial/ethnic health care disparities.

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