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Title

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Journal

Medical care, 48(4)

ISSN

0025-7079

Authors

Guerrero, Alma D

Chen, Jie

Inkelas, Moira

et al.

Publication Date

2010-04-01

DOI

10.1097/mlr.0b013e3181ca3ef7

Peer reviewed

Racial and Ethnic Disparities in Pediatric Experiences of Family-Centered Care

Alma D. Guerrero, MD, MPH,† Jie Chen, PhD,‡ Moira Inkelas, PhD,*§
Hector P. Rodriguez, PhD, MPH,§ and Alexander N. Ortega, PhD*§¶*

Background: Previous studies have examined racial and ethnic disparities in the receipt of family-centered care among children with special health care needs and health plan enrollees, but the extent of disparities in the general pediatric population remains unclear.

Objective: To examine racial and ethnic disparities in the receipt of family-centered care among a general population of US children.

Methods: Linked data from the Medical Expenditure Panel Survey and the National Health Interview Survey (2003–2006) were used to study 4 family-centered care items and an overall composite measure of family-centered care. Adjusted models examined the extent to which child characteristics, socioeconomic, and access to care factors explained racial and ethnic disparities in the provision of family-centered care.

Results: Black children have similar experiences as white children on overall family-centered care and on each of the 4 components of family-centered care in models that adjust for child characteristics and socioeconomic factors. In contrast, differences in dimensions of and overall family-centered care between white children and Latino children, irrespective of interview language, persist after multivariate adjustment.

Conclusions: Future research should examine the extent to which Latino-white differences in the receipt of family-centered care can be narrowed with programs and policies geared at improving parental education, health literacy, the quality of provider communication, and quality improvement strategies for health care systems.

Key Words: family-centered care, ethnic health disparities, minority parents, provider-patient communication

(*Med Care* 2010;48: 388–393)

Family-centered care is an important approach for improving quality and reducing racial and ethnic disparities in health care quality.^{1,2} Family-centered care is defined by a set

of processes of care that include core components of respect, honoring family diversity, sharing information, collaboration, and partnership.³ Prior research suggests that family-centered care may improve patient and family outcomes⁴ and increases patient and family satisfaction⁵ as well as professional satisfaction with care,⁶ decreases health care costs, and leads to more effective use of health care resources.³ A diverse range of professional organizations, governmental agencies, and accreditation organizations recently prioritized family-centeredness as a core pillar of pediatric health care quality. For example, numerous care recommendations from the American Academy of Pediatrics (AAP) emphasize family centered care as the foundation for parent guidance and care.¹ The Maternal and Child Health Bureau (MCHB) adopted family-centered care as one of 6 national performance measures for children's health care.⁷ Most recently, the National Committee for Quality Assurance (NCQA) included components of family-centered care as a required element of the Physician Practice Connections-Patient Centered Medical Home (PPC-PCMH) standards for health plans.⁸

Previous studies have examined the provision of family-centered care and disparities among children with special health care needs (CSHCN)⁹ and among children enrolled in health plans,¹⁰ but the extent of disparities in the general pediatric population remains unclear. This study uses a large national dataset of a general pediatric population to examine if black and Latino parents report receiving care that is less family-centered compared with white parents and the extent to which racial and ethnic differences persist after accounting for socio-demographic and health care access factors.

METHODS

This study used a linked dataset of the Medical Expenditure Panel Survey (MEPS) and the National Health Interview Survey (NHIS) from 2003 to 2006. MEPS is a nationally representative telephone survey providing estimates of health service utilization, expenditures, adequacy of family-centered care, and socioeconomic characteristics for the current US civilian noninstitutionalized population. MEPS oversamples racial and ethnic minorities to produce reliable subgroup estimates. The parent or legal guardian most knowledgeable about the child was the primary respondent in each household. Details on the NHIS-MEPS survey methods and weighting procedures are available elsewhere.¹¹

From the *UCLA Center for Healthier Children, Families and Communities, Los Angeles, CA; †Department of Pediatrics, David Geffen School of Medicine, University of California, Los Angeles, CA; ‡Department of Political Science, Economics, and Philosophy, College of Staten Island/CUNY, Staten Island, NY; §Department of Health Services, School of Public Health, University of California, Los Angeles, CA; and ¶Institute for Social Research, University of California, Los Angeles, CA.

Reprints: Alma Guerrero, MD, MPH/UCLA Center for Healthier Children, Families and Communities, 10990 Wilshire Ave, Suite 900, Los Angeles, CA 90024. E-mail: aguerrero@mednet.ucla.edu.

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ISSN: 0025-7079/10/4804-0388

This linked dataset yielded a sample size of 18,894 children ages 0 to 17 years. This study excluded CSHCN ($n = 3840$) as identified by the CSHCN screener developed by the Child and Adolescent Health Measurement Initiative.^{12,13} We also excluded 4526 children, of which 35% were whites, 17% blacks, 45% Latinos, and 7% of other race, who did not have a doctor's visit in the last 12 months because parents of these children were not asked about family-centered care. An additional 250 children with missing information on dependent or independent variables were excluded yielding a final sample of 4278 white, 1689 black, 3544 Latino, and 757 other race children.

Dependent Variables

A composite measure of family-centered care was constructed using 4 questions adopted by the NHIS from the Consumer Assessment of Healthcare Providers and Systems quality of care questionnaire.¹⁴ Parents were asked, "how often did [your child's] doctors or other health providers" (1) Listen carefully to you, (2) explain things in a way you could understand, (3) show respect for what you had to say, and (4) spend enough time with you. Questions used a 12-month reference period. Following Ngui and Flores,⁹ responses to each individual family-centered care question were dichotomized as usually/always versus sometimes/never. The composite measure is a dichotomous variable that contrasts parents answering "always" or "usually" to each of the 4 family-centered care questions with parents answering "sometimes" or "never" to one or more of the questions.

Independent Variables

Categorization of child race/ethnicity follows the US Census Bureau which includes non-Latino white (white), non-Latino black (black), Latino, and other race/ethnicity based on parental report. Latino children were further categorized by the language of the parent interview (English vs. Spanish). Other independent variables included child characteristics (age in years, gender, overall health status, citizenship, and nativity status), socioeconomic characteristics (maternal educational attainment and poverty status), and access to care factors (insurance coverage and having a usual source of care). Child's age was categorized as less than 6 years of age, greater than 6 but less than 11, or 11 to 17 years of age. Health status was dichotomized as excellent or very good, versus good/fair/poor. Child's citizenship and nativity status were categorized as US citizen and born in the United States, US naturalized citizen and not born in the United States, and non US citizen and not born in the United States. Poverty status based on federal poverty guidelines for a family of 4 was categorized as 0% to 99%, 100% to 199%, or $\geq 200\%$ of the federal poverty level. Maternal educational attainment was defined as less than a high school graduate, high school graduate, or some college or higher. Insurance status was categorized as private, public, or uninsured. Geographic region included the Northeast, Midwest, South, and West.

Analyses

Bivariate analyses were conducted using χ^2 tests to assess the general association of dependent variables with

each of the independent variables. Logistic regression was used to examine the association between race/ethnicity and whether parents reported always or usually receiving each family-centered care component and the overall composite measure of family-centered care. Multivariate models were specified in a step-wise fashion by entering groups of independent variables in the following order: (1) child characteristics (parent-reported health status, child age, citizenship, and nativity status, and gender), (2) parent education and family income level, (3) health care access (health insurance and usual source of care), and (4) geographic region. All regression models employ the MEPS weighting scheme so that the results reflect a nationally representative sample of children. STATA (Version 9.2) was used for all statistical analyses.

RESULTS

Descriptive statistics for the variables employed in this study are listed in Table 1. The percentage of parents reporting usually or always receiving each element of family-centered care ranged from 81% of Latino children with parents interviewed in Spanish to 86% of Latino children with parents interviewed in English, 87% of black children, and 90% of white children ($P < 0.001$) (Table 2). In unadjusted analyses, the odds of receiving all 4 components of family-centered care compared with white children was lower for Latino children with parents interviewed in Spanish (OR: 0.39, $P < 0.001$), Latino children with parents interviewed in English (OR: 0.56, $P < 0.001$), and black children (OR: 0.74, $P < 0.006$) (Table 3).

Multivariate Analyses

In all 4 multivariate models, Latino children, irrespective of interview language, had lower odds compared with white children of receiving all 4 components of family-centered care (Table 3, model 5). In contrast, the difference between black and white children was no longer statistically significant (OR: 0.89, $P < 0.31$) once child characteristics and socioeconomic factors were considered (Table 3, model 3).

Differences with white children persist for both Latino groups in adequacy of explanations and time spent in models adjusting for child, socioeconomic, health care access and region factors (Table 3, models 3–5). Latino children with parents interviewed in Spanish had almost half the odds of white children of receiving adequate explanations (OR: 0.59, $P < 0.010$) or spending enough time (OR: 0.67, $P < 0.009$) after adjusting for all covariates (Table 3, model 5). Similarly, the odds for Latino children with parents interviewed in English were lower for spending enough time (OR: 0.66, $P < 0.001$) after adjustment for all covariates (Table 3, model 5). For the components of showing respect and listening, odds were no different between black and white children and between both Latino groups and white children, when accounting for child characteristics and socioeconomic factors (Table 3, model 3). After adjusting for access factors (Table 3, model 4) and US region (Table 3, model 5), blacks and Latinos interviewed in Spanish were significantly more likely than whites to say the doctor always or usually treated them with respect.

TABLE 1. Summary Statistics of Sample Characteristics Across Race/Ethnicity for Children Aged 0 to 17*

	White (Non-Latino) N = 4278		Black (Non-Latino) N = 1689		Latino N = 3554		Other Race N = 757		<i>P</i> [†]
	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI	
Child characteristics (%)									
Health status									
Excellent	57.99	56.5–59.5	52.81	50.4–55.2	40.29	38.7–41.9	55.88	52.3–59.4	<0.001
Very good	29.48	28.1–30.8	29.13	27.0–31.3	30.42	28.9–31.9	28.01	24.8–31.2	
Good/fair/poor	12.53	11.5–13.5	18.06	16.2–19.9	29.29	27.8–30.8	16.12	13.5–18.7	
Age									
Under 6 yr old	34.60	33.2–36.0	32.39	30.2–34.6	37.56	36.0–39.2	35.14	31.7–38.5	<0.001
Between 6 and 10 yr old	28.00	26.7–29.3	27.12	25.0–29.2	29.01	27.5–30.5	29.59	26.3–32.8	
Between 11 and 17 yr old	37.40	36.0–38.9	40.50	38.2–42.8	33.43	31.9–35.0	35.27	31.9–38.7	
Gender									
Male	49.16	47.7–50.7	46.65	44.3–49.0	48.34	46.7–50.0	50.46	46.9–54.0	NS
Female	50.84	49.3–52.3	53.35	51.0–55.7	51.66	50.0–53.3	49.54	46.0–53.1	
Citizenship/nativity									
US-born citizens	98.67	98.3–99.0	99.05	98.6–99.5	90.94	90.0–91.9	89.04	86.8–91.3	<0.001
US-naturalized citizens	0.58	0.4–0.8	0.12	0.0–0.3	1.35	1.0–1.7	5.68	4.0–7.3	
Non-US citizens	0.75	0.5–1.0	0.83	0.4–1.3	7.71	6.8–8.6	5.28	3.7–6.9	
Socioeconomic status factors (%)									
Mother's education									
Above high school degree	66.67	65.3–68.1	47.37	45.0–49.7	24.14	22.7–25.5	64.07	60.6–67.5	<0.001
High school degree	23.80	22.5–25.1	33.51	31.3–35.8	24.99	23.6–26.4	21.14	18.2–24.1	
No high school degree	9.54	8.7–10.4	19.12	17.2–21.0	50.87	49.2–52.5	14.80	12.3–17.3	
Family income below federal poverty level									
More than 200% FPL	69.92	68.5–71.3	35.23	32.9–37.5	28.25	26.8–29.7	62.88	59.4–66.3	<0.001
100–200% FPL	17.02	15.9–18.1	28.06	25.9–30.2	35.82	34.2–37.4	20.08	17.2–22.9	
Less than 100% FPL	13.07	12.1–14.1	36.71	34.4–39.0	35.93	34.4–37.5	17.04	14.4–19.7	
Access-to-care factors (%)									
Health insurance									
Private insurance	75.83	74.5–77.1	45.89	43.5–48.3	27.32	25.9–28.8	65.79	62.4–69.2	<0.001
Public insurance	20.83	19.6–22.0	50.74	48.4–53.1	63.82	62.2–65.4	28.01	24.8–31.2	
No insurance	3.34	2.8–3.9	3.37	2.5–4.2	8.86	7.9–9.8	6.21	4.5–7.9	
Health care access									
Have usual source of care	96.17	95.6–96.7	92.13	90.8–93.4	90.77	89.8–91.7	92.47	90.6–94.4	<0.001
No USC	3.83	3.3–4.4	7.87	6.6–9.2	9.23	8.3–10.2	7.53	5.6–9.4	
Interviewed language (%)									
English	99.46	99.2–99.7	99.76	99.5–100.0	48.73	47.1–50.4	99.87	99.6–100.1	<0.001
Spanish	0.54	0.3–0.8	0.24	0.0–0.5	51.27	49.6–52.9	0.13	–0.1–0.4	
US region (%)									
Northeast	20.36	19.2–21.6	16.05	14.3–17.8	10.64	9.6–11.6	14.66	12.1–17.2	<0.001
Midwest	29.83	28.5–31.2	18.00	16.2–19.8	6.50	5.7–7.3	21.27	18.3–24.2	
South	31.86	30.5–33.3	56.78	54.4–59.1	34.72	33.2–36.3	26.55	23.4–29.7	
West	17.95	16.8–19.1	9.18	7.8–10.6	48.14	46.5–49.8	37.52	34.1–41.0	

*Data Source: Medical Expenditure Panel Survey 2003 to 2006 merged with National Health Interview Survey (total sample = 10,278)

[†] χ^2 tests are used to test the association between race/ethnicity and indicators of FCC, and *P* values are reported.

DISCUSSION

Parents generally report positive experiences of family-centered care for their children, but important disparities exist across racial and ethnic groups. Black children have similar experiences as white children in receiving overall family-centered care and on each of the 4 components of family-centered care in models that adjust for child and socioeconomic factors.

Consistent with research focusing on Latino-white differences in provider-patient communication quality,^{10,15} differences in the individual components of adequacy of time spent and receiving explanations persist between white children and Latino children, irrespective of parent interview language, after multivariate adjustment. Also consistent with previous evidence that nonwhites generally report positive attitudes

TABLE 2. Bivariate Analysis for Each Individual Indicator and Composite Measure of Family Centered Care for Children Aged 0 to 17*

	Doctors Always/Usually Showed Respect (N = 9770)		Doctors Always/Usually Listened Carefully (N = 9664)		Doctors Always/Usually Explained Things (N = 9724)		Doctors Always/ Usually Spent Enough Time (N = 9345)		Composite Measure = 1 (N = 8950)	
	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI	Mean	95% CI
Total (%)	95.06	94.64–95.48	94.03	93.57–94.48	94.61	94.17–95.05	90.92	90.37–91.48	87.08	86.43–87.73
Child characteristics (%)										
Race/ethnicity										
Non-Latino white	95.61	94.99–96.22	95.18	94.54–95.83	96.19	95.62–96.76	93.38	92.64–94.13	90.21	89.31–91.10
Non-Latino black	95.80	94.84–96.75	94.97	93.92–96.01	95.32	94.31–96.33	92.07	90.78–93.36	87.39	85.80–88.97
Latino										
Interviewed in English	95.15	94.14–96.16	93.24	92.06–94.43	94.86	93.82–95.90	89.20	87.74–90.67	85.68	84.03–87.33
Interviewed in Spanish	92.97	91.80–94.15	91.60	90.33–92.88	90.56	89.22–91.90	85.40	83.78–87.02	81.23	79.43–83.02
Other race	95.11	93.57–96.65	93.00	91.18–94.82	93.26	91.47–95.05	91.68	89.71–93.65	86.00	83.52–88.47
Health status										
Excellent	96.44	95.94–96.94	95.28	94.70–95.85	96.06	95.53–96.59	92.77	92.07–93.47	89.46	88.63–90.29
Very good	94.88	94.10–95.66	93.93	93.08–94.78	94.55	93.74–95.36	91.14	90.13–92.15	87.00	85.80–88.19
Good/fair/poor	91.72	90.51–92.92	90.92	89.66–92.18	90.92	89.66–92.18	85.78	84.25–87.31	80.99	79.27–82.71
Age										
Under 6 yr old	94.05	93.28–94.82	93.33	92.52–94.14	93.69	92.90–94.48	89.44	88.44–90.44	85.28	84.13–86.43
Between 6 and 10 yr old	95.19	94.41–95.97	94.26	93.42–95.11	94.68	93.86–95.49	90.72	89.67–91.78	87.15	85.94–88.37
Between 11 and 17 yr old	95.93	95.30–96.57	94.52	93.79–95.25	95.45	94.79–96.12	92.51	91.67–93.36	88.77	87.75–89.78
Gender										
Male	94.83	94.22–95.45	93.79	93.12–94.46	94.37	93.73–95.01	91.04	90.25–91.84	86.94	86.00–87.87
Female	95.27	94.70–95.84	94.25	93.62–94.88	94.84	94.24–95.43	90.81	90.03–91.59	87.21	86.31–88.11
Citizenship/nativity										
US-born citizens	95.06	94.63–95.49	94.05	93.58–94.52	94.68	94.24–95.13	91.06	90.50–91.63	87.26	86.59–87.92
US-naturalized citizens	97.46	94.58–100.34	97.46	94.58–100.34	97.46	94.58–100.34	91.53	86.43–96.62	91.53	86.43–96.62
Non-US citizens	94.17	91.73–96.60	92.22	89.44–95.00	91.67	88.80–94.54	86.94	83.45–90.44	80.83	76.75–84.92
Socioeconomic status factors (%)										
Mother's education										
Above high school degree	96.52	96.01–97.03	95.60	95.03–96.16	96.38	95.86–96.89	93.27	92.58–93.97	90.49	89.68–91.30
High school degree	94.79	93.95–95.64	93.58	92.64–94.52	94.30	93.41–95.19	90.84	89.74–91.95	86.36	85.05–87.67
No high school degree	92.57	91.57–93.57	91.51	90.45–92.57	91.59	90.53–92.65	86.57	85.27–87.87	81.37	79.88–82.85
Family income below federal poverty level										
More than 200% FPL	96.57	96.06–97.07	95.74	95.18–96.29	96.31	95.79–96.83	93.49	92.81–94.17	90.35	89.53–91.16
100–200% FPL	93.64	92.71–94.58	92.69	91.70–93.69	93.45	92.51–94.40	88.28	87.04–89.51	84.09	82.69–85.49
Less than 100% FPL	93.54	92.59–94.49	92.03	90.99–93.08	92.46	91.44–93.48	88.59	87.36–89.81	83.71	82.29–85.14
Access-to-care factors (%)										
Health insurance										
Private insurance	96.28	95.78–96.78	95.66	95.12–96.20	96.37	95.88–96.87	93.48	92.82–94.13	90.25	89.47–91.04
Public insurance	93.57	92.83–94.31	92.03	91.21–92.85	92.36	91.56–93.16	88.03	87.05–89.01	83.54	82.42–84.66
No insurance	83.54	82.42–84.66	93.06	90.95–95.17	94.31	92.38–96.23	87.72	85.00–90.44	82.74	79.61–85.87
Health care access										
Have usual source of care	95.37	94.95–95.79	94.30	93.84–94.76	94.86	94.42–95.30	91.38	90.82–91.94	87.66	87.00–88.32
No USC	90.62	88.42–92.81	90.18	87.94–92.42	91.06	88.91–93.20	84.46	81.73–87.18	78.89	75.81–81.96
US region (%)										
Northeast	96.44	95.54–97.34	95.83	94.86–96.80	95.89	94.93–96.86	93.93	92.77–95.09	90.74	89.33–92.15
Midwest	95.18	94.24–96.13	94.68	93.68–95.67	95.03	94.07–95.99	92.65	91.49–93.80	88.54	87.13–89.95
South	94.92	94.21–95.62	93.67	92.89–94.44	94.52	93.79–95.25	90.92	90.00–91.84	86.72	85.63–87.80
West	94.38	93.54–95.22	93.04	92.12–93.97	93.73	92.85–94.61	88.07	86.90–89.25	84.51	83.20–85.82

*Data Source: Medical Expenditure Panel Survey 2003 to 2006 merged with National Health Interview Survey. 95% confidence intervals are reported.

TABLE 3. Unadjusted and Adjusted* Analyses of Race and Ethnicity Associated With FCC Composite and Each Individual FCC Indicator

	Model 1 [†]		Model 2 [‡]		Model 3 [§]		Model 4		Model 5	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Composite index										
Non-Latino white	1.00		1.00		1.00		1.00		1.00	
Non-Latino black	0.74	0.60–0.92	0.77	0.62–0.95	0.89	0.71–1.12	0.92	0.74–1.16	0.92	0.73–1.16
Latinos										
Interviewed in English	0.56	0.46–0.70	0.60	0.49–0.74	0.70	0.56–0.87	0.73	0.58–0.91	0.74	0.59–0.93
Interviewed in Spanish	0.39	0.32–0.47	0.47	0.38–0.58	0.69	0.54–0.87	0.73	0.58–0.94	0.76	0.59–0.98
Other race	0.63	0.48–0.81	0.63	0.48–0.82	0.66	0.51–0.86	0.69	0.53–0.90	0.71	0.54–0.93
Doctors always/usually showed respect										
Non-Latino white	1.00		1.00		1.00		1.00		1.00	
Non-Latino black	1.01	0.72–1.43	1.07	0.76–1.53	1.37	0.96–1.97	1.45	1.01–2.08	1.44	1.00–2.07
Latinos										
Interviewed in English	0.79	0.57–1.08	0.87	0.63–1.19	1.10	0.79–1.52	1.17	0.84–1.63	1.17	0.83–1.66
Interviewed in Spanish	0.56	0.43–0.74	0.70	0.52–0.93	1.21	0.87–1.69	1.30	0.93–1.80	1.32	0.93–1.85
Other race	0.90	0.60–1.35	0.91	0.60–1.38	0.99	0.66–1.50	1.05	0.69–1.57	1.06	0.70–1.59
Doctors always/usually listened carefully										
Non-Latino white	1.00		1.00		1.00		1.00		1.00	
Non-Latino black	0.85	0.62–1.17	0.89	0.65–1.22	1.12	0.79–1.57	1.19	0.84–1.68	1.20	0.85–1.70
Latinos										
Interviewed in English	0.61	0.46–0.80	0.64	0.48–0.86	0.80	0.59–1.08	0.86	0.63–1.16	0.87	0.63–1.20
Interviewed in Spanish	0.46	0.36–0.60	0.54	0.41–0.72	0.89	0.63–1.25	0.97	0.69–1.37	0.99	0.69–1.42
Other race	0.56	0.39–0.80	0.55	0.38–0.78	0.59	0.41–0.85	0.63	0.44–0.90	0.63	0.44–0.91
Doctors always/usually explained things										
Non-Latino white	1.00		1.00		1.00		1.00		1.00	
Non-Latino black	0.67	0.48–0.92	0.70	0.50–0.97	0.86	0.61–1.22	0.93	0.65–1.32	0.93	0.65–1.33
Latinos										
Interviewed in English	0.62	0.45–0.87	0.67	0.48–0.95	0.82	0.57–1.17	0.90	0.63–1.29	0.86	0.59–1.25
Interviewed in Spanish	0.30	0.23–0.39	0.36	0.27–0.48	0.56	0.39–0.80	0.63	0.44–0.89	0.59	0.40–0.86
Other race	0.48	0.33–0.68	0.48	0.33–0.69	0.51	0.35–0.74	0.54	0.37–0.78	0.52	0.36–0.76
Doctors always/usually spent enough time										
Non-Latino white	1.00		1.00		1.00		1.00		1.00	
Non-Latino black	0.86	0.66–1.11	0.89	0.69–1.16	1.01	0.77–1.33	1.05	0.80–1.38	1.05	0.80–1.39
Latinos										
Interviewed in English	0.51	0.40–0.65	0.55	0.43–0.69	0.61	0.48–0.78	0.64	0.49–0.82	0.66	0.51–0.86
Interviewed in Spanish	0.36	0.29–0.45	0.45	0.35–0.57	0.59	0.45–0.77	0.62	0.47–0.83	0.67	0.50–0.89
Other race	0.81	0.58–1.11	0.83	0.60–1.16	0.87	0.62–1.21	0.91	0.65–1.27	0.94	0.67–1.32

*All regressions were adjusted for sampling weights provided in MEPS to ensure that the results were nationally representative of the non-institutionalized civilian US population. Goodness of fit in these models is 0.03 to 0.04. Adjusted R squares for the composite index are 0.03 from model 1 to model 3, and 0.04 for model 4 and model 5.

[†]Unadjusted model.

[‡]Adjust for variables in model 1 plus age, health status, gender, and citizenship and nativity status.

[§]Adjust for variables in models 1 and 2 plus mother's education and family income.

^{||}Adjust for variables in models 1, 2, and 3 plus health care access and health insurance.

^{||}Adjust for variables in models 1, 2, 3, and 4 plus US Census Regions.

about doctors^{16,17} is a key finding that after adjusting for access to care factors blacks and Latinos interviewed in Spanish were significantly more likely than whites to say the doctor always or usually treated them with respect. Our results have important implications for efforts to improve patient and family health knowledge and health behavior.

The independent association of the components of time adequacy, receiving adequate explanations, and respect for nonwhite children, particularly for parents interviewed in Spanish, suggests that cultural and language factors may impact parents' abilities to get their informational needs met

within health care visits or may explain a social desirability bias in reporting.¹⁸ These findings are concerning given the increasing recognition of the value of family-centered care and that much of pediatric health care focuses on communicating information and anticipatory guidance to parents since their behaviors shape the physical, learning, and overall environment of the child.

Since recent studies suggest that physicians can take specific steps to improve patient understanding of explanations, particularly for patients with limited health literacy or language barriers, improving these components of care might

narrow disparities in how well subgroups of families understand preventive and treatment recommendations. For example, providing discrete action-oriented steps, assessing comprehension and interactive communication loop techniques, as well as using medical interpreters for families with limited English proficiency have been used to improve patient-provider communication and improve health outcomes.^{19–21} Supplementing provider explanations with appropriate reading level materials can also improve patient-provider communication as studies suggest that educational material for patients often exceeds their reading ability.^{19,22} Provider training and clinical supports that promote high quality patient interactions for patients who have varying levels of education, health literacy, and English proficiency are key areas for further attention and research.

Addressing adequacy of time and information requires not only action by physicians but also support from the health system. Primary care clinicians often feel rushed and do not always have complete control over time spent with patients. Responsibility is shared by health plans and medical groups to find ways of making necessary changes occur.²³ There may be a window of opportunity to address this area with the increased attention to family-centered care as part of national performance monitoring and accreditation. It will be important to observe how much these initiatives affect actual or perceived adequacy of visit time as a critical component of health care quality.

Certain study limitations should be noted. These cross-sectional results highlight important relationships but do not demonstrate causality. The self-report data may be subject to recall and reporting bias although previous studies assessing racial and ethnic disparities in patients' experiences of care have used comparable measures. Finally, the NHIS-MEPS surveys do not measure all aspects of family-centered care. Some researchers have operationalized the partnership and honoring family diversity components of family-centered care.

In conclusion, Latino parents, irrespective of interview language, experience general pediatric care with less of the core 4 processes of family-centered care compared with whites. The magnitude of the Latino-white disparities is practically important for health care providers and systems, as clinician communication interventions²⁵ have resulted in effects comparable to the racial and ethnic differences in family-centered care observed in this study. Therefore, programs and policies to improve parental education, health literacy, the quality of provider communication, and quality improvement strategies for health care systems are critical to improve family-centered care and have the potential to reduce racial and ethnic disparities in health. Our findings indicate that family-centered care among the general pediatric population is an important priority area, necessitating continual monitoring to improve provider system performance and ultimately improve health care quality.

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