



The Parent–Provider Relationship: Does Race/Ethnicity Concordance or Discordance Influence Parent Reports of the Receipt of High Quality Basic Pediatric Preventive Services?

Gregory D. Stevens, Ritesh Mistry, Barry Zuckerman, and Neal Halfon

ABSTRACT *Recent research among adults suggests that having a provider of the same race/ethnicity may enhance the quality of health care above and beyond just having any regular source of care. It is not known whether such relationships exist in pediatric care. The purpose of this study is to identify the distribution and methods by which families have a race/ethnicity concordant provider of well-child care and examine whether differences exist in the receipt of basic preventive services (BPS) and family-centered care (FCC) among those with concordant, discordant, and no regular providers. Analyses are stratified by geography to assess whether urban versus nonurban setting moderates these differences. This study uses publicly available data from the 2000 National Survey of Early Childhood Health (NSECH), a nationally representative, cross-sectional telephone survey of parents of children ages 4–35 months (n = 1,996). African Americans and Latinos were more likely than whites to lack a regular provider of well-child care (60.9% and 65.7% vs. 50.6%) and less likely to have a concordant provider (9.8% and 5.7% vs. 38.5%) (P < .001). African Americans with a regular provider were about three times more likely to establish a concordant relationship in urban versus nonurban settings (32.4% vs. 12.5%, P < .01). No statistically significant differences in BPS or FCC were found by concordance versus discordance for any group, a finding that held regardless of geographic setting. White children with no regular provider received better BPS than those with a discordant provider (e.g., excellent BPS of 37.2% vs. 27.1%, P < .05), but children with no regular provider were more likely than those with either concordant or discordant providers to have lower FCC in one (Latinos, whites) or three domains (African Americans). Despite racial/ethnic differences in the likelihood of having a concordant regular provider of well-child care, no disparities were found in BPS or FCC associated with discordance, even after stratification by urban/nonurban setting. Lacking a regular provider was associated with lower FCC versus having either a concordant or discordant provider, suggesting that efforts to improve these aspects of well-child care might focus less on linking children with a race/ethnicity concordant provider and more on social, cultural, and linguistic factors that impact having any regular provider.*

KEYWORDS *Children, Patient-provider relationship, Primary care, Racial/ethnic disparities.*

Dr. Stevens is with the Division of Community Health, USC Keck School of Medicine, Alhambra, California; Dr. Mistry is with the Department of Community Health Sciences, UCLA School of Public Health, Los Angeles, California; Dr. Zuckerman is with the Department of Pediatrics, Boston University School of Medicine/Boston Medical Center, Boston, Massachusetts; and Dr. Halfon is with the Center for Healthier Children, Families, and Communities, UCLA Schools of Medicine and Public Health, Los Angeles, California.

Correspondence: Gregory D. Stevens, PhD, MHS, Division of Community Health, University of Southern California, Keck School of Medicine, 1000 South Fremont Avenue, Building A7, Alhambra, CA 91803. (E-mail: gstevens@usc.edu)

INTRODUCTION

Racial/ethnic disparities in pediatric primary care are well documented.¹⁻⁵ Previous research in older children has shown that having a regular source of health care is associated with better primary care access, utilization, and quality⁶⁻¹¹ and if promoted, would be an effective approach to improving the quality of care that children receive and reducing disparities. In addition to a regular source of care, reports suggest that interpersonal aspects of the patient-provider relationship lead to additional variation in the quality of medical care.^{12,13} One such interpersonal factor—race/ethnicity pairing of the patient and provider—has been the focus of much recent study.

For adults, having a primary care provider of the same race/ethnicity has been associated with greater utilization and quality of primary and specialty care, better partnership in decision-making, and higher satisfaction with care.¹⁴⁻²² Race/ethnicity concordance in the patient-provider relationship may enhance these aspects of care through more effective communication, greater interpersonal trust, and a better mutual understanding of health needs, behaviors, and expectations.²³⁻²⁶ Perhaps, in part, because of this higher quality of care or other language and communication factors, race/ethnicity has been found to be an important factor for adults in the selection of health care providers.^{27,28}

It is not known whether the same preferences for and outcomes of race/ethnicity concordance exist for care involving children. The only study of concordance among children found no association with parent-reported accessibility, continuity, or comprehensiveness of primary care.²⁹ Studies have not examined whether parents consider race/ethnicity in selecting a pediatric provider and whether having a provider of the same race/ethnicity contributes to the quality of primary care above and beyond having any regular provider of care. For families with young children, in particular, a heightened need for physician guidance on sensitive child-rearing topics and parent-provider communication about family issues provides an important rationale for exploring these questions in pediatric well-child settings.

One hallmark of high quality well-child care is the delivery of basic preventive services (BPS) that includes anticipatory guidance, developmental assessment, and screening for family risk behaviors such as parent smoking.³⁰⁻³² Providers are expected to deliver these services in a manner that meets the needs of parents and emphasizes the family context (i.e., FCC).³³ Given studies reporting disparities in *some* preventive services for children³⁴⁻³⁹ and other studies indicating the substantial time constraints of providing children with all recommended preventive services,⁴⁰⁻⁴² the focus on BPS may be a good starting point for analyses of race/ethnicity concordance.

One factor that may moderate the potential relationship between race/ethnicity concordance or discordance and quality of well-child care is the geographic setting of the provider. Previous research has shown that minority providers are more likely to serve patients in urban areas,^{43,44} perhaps making it easier for minority families to exert a preference for providers of the same race/ethnicity. Providers in urban settings may be more open to or have greater experience with racial/ethnic diversity than those working in suburban or rural areas, leading to less differential quality of care across racial or ethnic groups. Despite the potential differences between urban and nonurban providers, this moderating role of geography has not been well studied in health care for adults or children.

This study uses nationally representative data on young children to examine (1) the distribution and method by which families come to have race/ethnicity concordant

providers of well-child care, (2) whether parent reports of BPS and FCC differ among those with concordant, discordant, or no regular provider of well-child care, and (3) whether such relationships are moderated by urban versus nonurban settings. The study controls for both family and health care system covariates (e.g., language, maternal education, child health insurance coverage, and health care setting).

METHODS

Study Design and Sampling

This study uses publicly available data from the 2000 National Survey of Early Childhood Health (NSECH), conducted by the National Center for Health Statistics. The NSECH is a cross-sectional, nationally representative survey of children 4–35 months of age, in which parents report on aspects of their child's health and health care.⁴⁵ The NSECH over-sampled African American and Latino children to improve reliability of estimates for these groups. Structured telephone interviews were conducted in English or Spanish with the primary caregiver of one randomly selected child in each household. More detailed information about NSECH is available elsewhere.⁴⁶

Interviews were completed with parents of 2,068 children for a Council of American Survey Research Organizations estimated response rate of 65.5%. The response rate established by this council (an association of research organizations that sets standards for survey research nationally) is calculated as the product of the proportion of telephone lines that could be identified as residential or non-residential (87.6%), the proportion of completed screening interviews among households (94.5%), and the proportion of completed interviews among eligible households (79.2%).⁴⁷ Respondents were mothers (87%), fathers (12%), and grandparents/guardians (1%). Asian/Pacific Islanders, Native Americans, and Alaskan Natives, and "other" groups (n = 71) were excluded in this analysis due to their small number, leaving a final sample of 1,996 children (97% of completed interviews).

Measures

Regular Provider of Care Parents were asked about having both a regular place of well-child care and a specific regular provider of well-child care. First, parents were asked where they take their child when needing a shot or checkup. Those reporting any regular place of well-child care (e.g., private or group practice provider, community health center or clinic, hospital clinic, urgent care center, etc.) were then asked whether there is a particular doctor or other health care provider that they take their child to for well-child care. The very small percentage of parents who reported no regular place of care (<1%) were not asked the question about a regular provider and, thus, were coded as not having one.

Maternal Race/Ethnicity, Provider Race/Ethnicity, and Concordance

Respondents were asked about the race/ethnicity of the child's mother because the vast majority of pediatric visits are accompanied by mothers. Response options included white, African American, Native-American/Alaskan-Native, Asian/Native-Hawaiian/Pacific-Islander, and 'other'. Respondents were asked about 'Spanish,

Hispanic, or Latino descent' of the mother; those responding 'yes' were categorized as Latino regardless of maternal race.

Respondents also were asked about the race/ethnicity of the regular provider of well-child care. Response options included the following six very broad categories: white, African American, Latino, Native-American, Asian, or 'other'. These categories are likely to reflect a level at which parents can accurately assess the race/ethnicity of their provider, especially considering that parents usually have ongoing and extended contact with a 'regular' provider. Parent perceptions of race/ethnicity rather than actual race/ethnicity (if different) may even be preferred, because BPS and FCC are parent reported.

Racial/ethnic concordance between mother and regular provider was assessed as follows: If the race/ethnicity matched, the pair was considered concordant; if race/ethnicity did not match, the pair was considered discordant. When parents did not know the race/ethnicity of the provider ($n = 12$), the pair was considered discordant, assuming that adults are likely to be able to identify other adults of the same race/ethnicity, at least at this very broad categorical level. Sensitivity analyses were conducted including and excluding the few 'don't know' responses, and no differences were detected.

BPS

The BPS measure assesses parent-reported receipt of a core set of basic pediatric preventive services for young children.³⁰ The measure was previously designed by using existing preventive care items in the NSECH that (1) are recommended by the American Academy of Pediatrics and Bright Futures guidelines, and (2) have research demonstrating their benefit to children. The measure assesses receipt of (1) a developmental assessment, (2) injury prevention counseling, (3) screening for parent smoking, (4) guidance on reading to children, and (5) guidance on 14 other topics (expressed as a summary score). The BPS measure is based on valid and reliable items⁴⁸ and is strongly correlated with a range of other health care quality and satisfaction measures.³⁰

The BPS measure asks parents to report the well-child services received in the past year (or since birth, for children <1 year of age). Figure 1 summarizes the items constituting the BPS measure and the scoring procedures for the scale. Scoring for items 1 through 4 was dichotomous (no = 0 points, yes = 1 point). The composite measure of 14 guidance topics (item 5) was designed differently, assessing the receipt of anticipatory guidance in relation to parental needs and preferences. This composite is a count of missed opportunities, defined as guidance topics that were not addressed but according to parent report, would have been helpful. Because missed opportunities were common (about 45% reported 1 or more), a three-point scoring system was created for this composite, with no missed opportunities being considered the best result (no missed opportunities = 2 points, 1 missed opportunity = 1 point, and 2 missed opportunities = 0 points). The greater weighting of the missed opportunities component, relative to the other four items in the BPS measure, reflects the larger number of services assessed in this composite item.

Total scores for the BPS measure ranged from 0 to 7 points. To summarize the receipt of BPS, the scores were collapsed into four ordinal categories, that is, excellent (6 or 7 points), good (4 or 5 points), fair (2 or 3 points), and poor (0 or 1 point). The extremes of the BPS were defined *a priori* to distinguish children who received nearly all services (6 or 7) from those who received nearly none (0 or 1). More information about the BPS is available elsewhere.³⁰

Basic Preventive Services Scale Item	Scoring
1. Ever received a developmental assessment (all ages) Did provider carry out a developmental assessment?, or Did provider ever have child pick up small objects, stack blocks, throw a ball or recognize different colors?	Yes to either = 1 point
2. Receipt of injury prevention guidance in last 12 months Use of child car-seats (all ages) Sleeping position (4-9 months) How to teach child about dangerous situations (19-35 months)	Yes = 1 point for each
3. Screened for parent smoking in last 12 months (all ages)	Yes = 1 point
4. Received guidance on reading to child in last 12 months (all ages)	Yes = 1 point
5. Missed opportunities for health supervision; topic <u>not</u> discussed but desired in the last 12 months? Breastfeeding (<10 months) Issues related to food or feeding (4-35 months) How child communicates needs (<10 months) Night waking and fussing (4-18 months) Sleeping with a bottle (10-18 months) Weaning from a bottle (10-18 months) Issues related to food or feeding (10-35 months) Words and phrases child understands (10-35 months) Guidance and discipline (10-35 months) Toilet training (10-35 months) Bedtime routines (19-35 months) Things child can start to do for self (19-35 months) Getting along with other children (10-35 months) Child care arrangements (all ages)	None = 2 points One = 1 point Two or more = 0 points
TOTAL COMPOSITE BPS SCORE (created by summing the responses to 1 through 5)	6-7 Points = Excellent care 4-5 Points = Good care 2-3 Points = Fair care 0-1 Points = Poor care

FIGURE 1. Content and scoring of the basic preventive services (BPS) measure.³⁰

FCC

Family-centeredness of care is measured using four items. Parents were asked how often the provider: (1) took time to understand the specific needs of the child, (2) respected the parent as the expert on the child, (3) asked how the parent was feeling as a parent or guardian, and (4) understood the parent and how they prefer to raise their child. Responses options included “always,” “usually,” “sometimes,” and “never” and were dichotomized as “always/usually” versus “sometimes/never.”

Study Covariates

The main stratification variable in this study is geographic location of the regular provider. For those who reported a regular provider of well-child care, parents were asked whether he/she is located in an urban, suburban, or rural area. Responses of suburban and rural were grouped together to create a dichotomous geographic variable of “urban” versus “nonurban.” Parents who did not report a regular provider of well-child care were not asked about geographic location.

Other study covariates included child age, maternal education (less than high school vs. high-school graduate or higher), language of interview (English/Spanish), child health status (excellent/very good vs. good/fair/poor, child health insurance coverage (private, public, other, uninsured), the setting of care (private office, health center or clinic, and other), and region (Northeast, Midwest, South, West). The NSECH also provides information on the method by which parents selected the provider: (1) recommended by a trusted source, (2) chosen from a list of providers,

(3) assigned by a health plan, or (4) other. Covariates are selected from a conceptual model of factors that have been associated with pediatric primary care experiences.¹

Analysis

Analyses were conducted using STATA 7.0. Results were weighted to be representative of the national population of young children and are adjusted for the complex survey design of the NSECH using survey procedures. First, descriptive results for the independent and dependent variables and the study covariates, are presented by race/ethnicity. Statistical significance is assessed for differences across racial/ethnic groups using Pearson chi-squared. Second, to examine whether the method of provider choice is associated with racial/ethnic concordance among children with a regular provider, we present bivariate proportions and associated *P*-values tested with Pearson chi-square. Third, differences in BPS and FCC are examined for those with (1) a concordant provider, (2) a discordant provider, and (3) no regular provider, using multinomial logistic regression (with BPS and FCC as the dependent measures) to present proportions adjusted for study covariates. We calculate proportions from these logistic regression estimates. The *P*-values are presented from adjusted Wald tests of significance. Fourth, adjusted proportions of “excellent or good” levels of BPS are presented for those with concordant, discordant, or no regular provider, stratified by geographic location (urban vs. nonurban). Results are presented for whites and African Americans/Latinos (grouped together to assure sufficient sample sizes for these analyses), and the significance of differences between these adjusted proportions is examined using adjusted Wald tests.

Because most covariates in this study may be statistically correlated, preliminary tests were conducted to assess any potential biasing statistical effects of collinearity among the major covariates. Collinearity was assessed using the variance inflation factor (VIF) that runs each covariate as a dependent variable predicted by the other covariates. A VIF greater than 10 indicates collinearity. The highest VIF was 1.3 (for maternal education) suggesting collinearity is not likely present.

RESULTS

Table 1 summarizes the characteristics of the national population of children ages 4–35 months by maternal race/ethnicity. African Americans and Latinos were more likely than whites to lack a regular provider of care (60.9% and 65.7% vs. 50.6%), more likely to have discordant providers (29.3% and 29.7% vs. 10.9%), and less likely to have concordant providers (9.8% and 5.7% vs. 38.5%) ($P < .001$ for the overall chi-square for each group). Latinos, but not African Americans, were less likely than whites to select their provider based on the recommendation of a trusted source (43.6% vs. 52.4%) and more likely to be assigned to the provider by a health plan (22.7% vs. 10.9%) ($P < .01$ for the overall chi-square). Most children received excellent (35.1%) or good (32.1%) BPS. Although no racial/ethnic disparities were found in receipt of BPS, nearly one-third of children received fair or poor levels of BPS. In contrast, compared to whites, African Americans and Latinos reported statistically significant poorer FCC in three (African Americans) or all four (Latinos) of the questions.

Table 2 summarizes the results of a subanalysis among only those children with a regular provider of care to understand whether parents choose providers of the same race/ethnicity. For whites, parents with concordant providers were more likely than those with discordant providers to say the provider was recommended by a trusted source (56.9% vs. 36.2%), less likely to say the provider was chosen from a list

TABLE 1. Family characteristics, regular provider characteristics, and receipt of basic preventive services (BPS) by maternal race/ethnicity

Study measures	Total	Maternal race/ethnicity		
		African American	Latino	White
Sample size (n)	1,996	444	730	822
National population (%) [*]	95.1%	14.2%	17.8%	63.1%
Regular provider		‡‡	‡‡	
Concordant regular provider	28.0%	9.8%	5.7%	38.5%
Discordant regular provider	17.0%	29.3%	28.7%	10.9%
No regular provider	54.9%	60.9%	65.7%	50.6%
Family covariates				
Child age 19–35 months (vs. 4–18 months)	53.3%	54.1%	49.0%	54.3%
Mother is high-school graduate†	79.6%	73.5%‡‡	47.7%‡‡	90.0%
Spanish language interview	10.5%	0.1%	56.1%‡‡	0%
Child excellent/very good health‡	84.4%	78.1%‡‡	72.2%‡‡	89.4%
Child health insurance type		‡‡	‡‡	
Private insurance	61.4%	40.3%	31.5%	74.5%
Public insurance	27.7%	48.9%	42.2%	18.9%
Other insurance	3.4%	5.8%	4.8%	2.5%
Uninsured	7.5%	5.0%	21.4%	4.1%
Method of provider choice§			††	
Recommended by trusted source	49.6%	42.1%	43.6%	52.4%
Chosen from list of providers	22.6%	21.1%	21.0%	22.6%
Assigned by health plan	13.3%	19.9%	22.7%	10.9%
Other method	14.5%	16.9%	12.7%	14.1%
Regular provider is in urban area§¶	57.2%	65.9%‡‡	76.2%‡‡	51.6%
Regular health care setting		‡‡	‡‡	
Private office	73.6%	66.9%	53.1%	80.8%
Health center or clinic	16.4%	18.9%	31.1%	11.7%
Other (hospital, emergency department)	10.0%	14.1%	15.7%	7.5%
Geographic region		‡‡	‡‡	
Northeast	17.7%	17.6%	18.0%	17.6%
Midwest	21.5%	15.7%	12.2%	25.6%
South	38.3%	59.5%	25.9%	38.2%
West	22.4%	7.3%	44.0%	18.7%
Well-child care BPS				
Excellent	35.1%	38.1%	30.5%	35.8%
Good	32.1%	33.7%	33.2%	31.4%
Fair	24.6%	21.2%	27.4%	24.7%
Poor	8.1%	7.0%	9.0%	8.1%

TABLE 1. *Continued*

Study measures	Total	Maternal race/ethnicity		
		African American	Latino	White
Family-centered care (FCC)				
Takes time to understand needs	84.8%	84.8% **	67.6% ‡‡	89.6%
Respects your expertise on child	82.1%	78.7% ††	72.1% ‡‡	85.6%
Understand parent preferences	60.7%	54.6% ††	51.4% ‡‡	64.7%
Asks how you feel as a parent	44.5%	46.6%	38.8%**	45.6%

N = 1,996 and weighted (%). Standard errors for these estimates range between 0.01 and 0.05.

*Excludes 'Asian/Pacific Islander, American Indian/Alaskan Native, and other' that reflect 4.9% of the total population.

†Maternal education of high-school graduate or higher versus not a high-school graduate.

‡Compared to 'good, fair, or poor' health status.

§Among children who have a regular provider of well-child care.

¶Provider is located in urban area versus nonurban area (suburban or rural).

** $P < .05$ for the chi-square for African Americans or Latinos versus whites.

†† $P < .01$ for the chi-square for African Americans or Latinos versus whites.

‡‡ $P < .001$ for the chi-square for African Americans or Latinos versus whites.

TABLE 2. Method by which the regular provider was chosen by the parent according to the race/ethnicity concordance of the provider

Race/ethnicity concordance	Method by which provider was chosen by parent			
	Recommended by trusted source	Chosen from list of providers	Assigned by health plan	Other method
African American mother (n = 185)				
Concordant provider (n = 41)	40.1%	28.2%	7.9%	23.8%
Discordant provider (n = 144)	42.8%	18.7%	23.9%	14.6%
Latino mother (n = 287)				
Concordant provider (n = 56)	50.2%	16.7%	27.8%	5.3%
Discordant provider (n = 231)	42.3%	21.8%	21.7%	14.2%
White mother† (n = 420)				
Concordant provider (n = 322)	56.9%	19.4%	11.5%	12.1%
Discordant provider (n = 98)	36.2%	33.9%	8.9%	20.1%

Standard errors for these estimates range between 0.02 and 0.10. Weighted %.

† $P < .01$ for the Pearson chi-square of the relationship between race/ethnicity concordance with method of provider choice, within each racial/ethnic group.

(19.4% vs. 33.9%), and about equally likely to report being assigned or other method ($P < .01$ for the overall chi-square). Among Latinos, there was no apparent association between race/ethnicity concordance and the method by which the provider was chosen. African Americans with concordant relationships appeared more likely to have chosen the provider from a list (28.2% vs. 18.7%) and less likely to have been assigned by a health plan (7.9% vs. 23.9%), but the results were not statistically

significant. In analyses not shown, African Americans (but not Latinos or whites) with a regular provider were about three times more likely to establish a concordant relationship in urban versus nonurban settings (32.4% vs. 12.5%, $P < .01$).

Table 3 summarizes the relationship (adjusted for other factors) of having a concordant provider, discordant provider, or no regular provider with the receipt of

TABLE 3. Regular provider, racial/ethnic concordance, and receipt of basic preventive services (BPS) and family-centered care (FCC)

BPS and FCC by maternal race/ethnicity	Concordant provider	Discordant provider	No regular provider
African American	n = 41	n = 144	n = 259
BPS			
Excellent	40.8%	43.5%	35.0%
Good	39.1%	30.9%	34.3%
Fair	18.3%	20.0%	22.2%
Poor	1.7%	5.6%	8.5%
FCC			
Takes time to understand needs	94.8%	90.4%	85.3%
Respects your expertise on child	88.1%	86.3%*	77.8%
Asks how you feel as a parent	51.8%	50.0%*	37.2%
Understand parent preferences	55.9%	60.8%†	42.6%
Latino	n = 56	n = 231	n = 443
BPS			
Excellent	27.7%	34.1%	29.1%
Good	31.4%	36.3%	31.9%
Fair	29.1%	21.6%	29.8%
Poor	11.8%	8.0%	9.2%
FCC			
Takes time to understand needs	86.4%	81.2%	72.4%
Respects your expertise on child	78.7%	81.2%	71.2%
Asks how you feel as a parent	48.6%	47.4%	39.2%
Understand parent preferences	56.6%	54.5%	48.8%
White	n = 322	n = 98	n = 402
BPS		*	
Excellent	36.3%	27.1%	37.2%
Good	31.7%	31.5%	31.2%
Fair	24.6%	37.4%	22.0%
Poor	7.3%	3.9%	9.6%
FCC			
Takes time to understand needs	89.5%	90.7%	89.0%
Respects your expertise on child	90.8%‡	82.3%	80.7%
Asks how you feel as a parent	43.8%	42.7%	46.4%
Understand parent preferences	64.2%	61.6%	64.4%

Analyses adjusted for child age, maternal education, child health insurance, child health status, and language. Standard errors for these estimates range between 0.001 and 0.02. Weighted %. No significant differences were found between those with a concordant provider and a discordant provider for any racial/ethnic group.

* $P < .05$ for the difference between those with a concordant or discordant provider versus no provider.

† $P < .01$ for the difference between those with a concordant or discordant provider versus no provider.

‡ $P < .001$ for the difference between those with a concordant or discordant provider versus no provider.

BPS and FCC. For African Americans and Latinos, significant differences were not detected in the receipt of BPS between children with a concordant, discordant, or no regular provider. For whites, children with discordant providers were significantly less likely than those with no regular provider to have received excellent BPS (27.1% vs. 37.2%) and more likely to have received fair BPS (37.4% vs. 22.0%) ($P < .05$ for the overall chi-square). No significant differences in FCC were detected between concordant and discordant pairs for African Americans and Latinos. African Americans with no regular provider reported lower FCC for three of the four questions compared to discordant providers, and both Latinos and whites with no regular provider reported lower FCC for one of the four questions (i.e., respecting parent expertise on child) compared to those with a discordant provider (Latinos) and a concordant provider (whites).

Figure 2 presents the relationship of racial/ethnic concordance/discordance with BPS stratified by geographic location of the provider. Overall, there were no significant differences in “excellent or good” BPS according to racial/ethnic concordance or discordance, regardless of geographic location. The difference in BPS appeared somewhat greater for whites with providers in urban areas (concordant = 69% vs. discordant = 55%) than in nonurban areas (concordant = 68% vs. discordant = 63%), but neither difference was statistically significant. One statistically significant difference was found for African Americans/Latinos: those with urban discordant relationships had a greater proportion of “excellent or good” BPS compared to those with no regular provider (74% vs. 64%, $P < .05$).

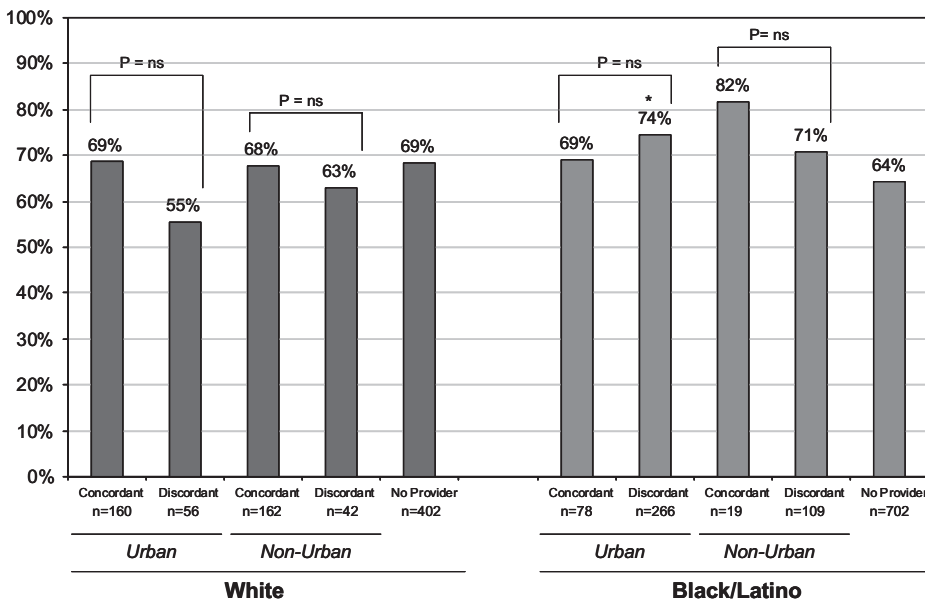


FIGURE 2. Reported excellent or good basic preventive services (BPS) according to geographic location and race/ethnicity concordance of the regular provider, stratified by maternal race/ethnicity. Analyses are adjusted for child age, maternal education, child health insurance, child health status, and language.

* $P < .05$ for the difference in BPS for the given category versus not having a regular provider; ns, the difference in BPS between concordant and discordant patient-provider relationships was not significant at $P < .05$.

DISCUSSION

This nationally representative study finds that more than half of all young children do not have a regular specific provider of well-child care and that the likelihood of having a regular provider of the same race/ethnicity is substantially lower (<10%) among African Americans and Latinos. Although studies have shown that African American and Latino physicians are more likely than whites to care for adult minority patients (especially of their own race/ethnicity),^{43,44} the small number of African American and Latino pediatricians (each representing just 5% of pediatricians nationally in 2002–2004) makes establishing a concordant relationship in practice quite difficult.^{49,50}

Although other studies have shown that minority adults are more likely to choose minority providers,^{27,28} in this study of health care for children, only whites with concordant relationships were significantly more likely to report selecting the regular provider based on a recommendation by a trusted source. Although Latinos and African Americans were about twice as likely as whites to report being assigned to a health care provider (about 23% and 20% vs. 11%), there was no significant correlation of assignment with concordance/discordance. Regardless of race/ethnicity concordance, reducing the occurrence of assigning children to a well-child care provider and encouraging informed choice may promote better well-child care experiences. Recent studies among adults have shown, for example, that recommending a provider to patients based on matched information about preferences for patient-centered care can be an effective way of increasing patient trust and satisfaction.^{51,52}

Despite differences in the likelihood of having a concordant, discordant, or no regular provider of well-child care, there were no disparities in BPS across these groups for African Americans or Latinos. BPS among whites with a concordant provider was no different from whites with a discordant provider or no regular provider; however, whites with a discordant provider had lower BPS compared to those with no regular provider. This suggests that some barriers may exist in the process of delivering BPS between white parents and non-white providers. Although the reason is not known, minority providers may believe discussing certain topics is unnecessary or inappropriate with white parents (perhaps due to discomfort or to a stereotyped perception of whites as lower risk). Alternately, white parents may be less comfortable raising issues with non-white providers that might normally cue the delivery of BPS. Efforts to facilitate, standardize, and normalize the delivery of BPS might reduce discomfort for both providers and patients and help increase the provision of BPS.

No differences were found in FCC between concordant and discordant pairs for any group. African Americans without a regular provider of well-child care reported poorer FCC in three of the four dimensions compared to those with a discordant provider. For African Americans, this suggests that having a regular provider, regardless of race/ethnicity (including having even a discordant provider), is associated with better FCC compared to those without a regular provider. This finding of no effect of concordance on FCC is corroborated by a recent study showing no association between concordance and adult reports of cultural sensitivity, respect, or other qualities of patient–provider interactions.⁵³

That no differences were found in either BPS or FCC according to concordance or discordance does not necessarily contradict the studies in adult populations linking concordance with higher patient satisfaction.^{14–22} Some aspects of satisfaction may, in fact, be derived irrespective of content of care,⁵⁴ and there may still remain

unmeasured differences in the processes of and satisfaction with well-child care that vary by concordance. Alternately, provider biases and patient expectations that contribute to disparities in care for adults might be attenuated in health care involving children. Research suggests that white physicians perceive African American adults to be less educated and of lower intelligence,⁵⁵ and that African American adults express less trust in physicians and are less satisfied with provider interpersonal style (e.g., listening, explanation, and thoroughness).^{56,57} Some of these perceptions and biases may be set aside in caring for children.

To examine the potential moderating impact of geographic location on the relationship between racial/ethnic concordance/discordance and BPS, the study results were stratified by urban versus nonurban setting. Although it was hypothesized that such analyses might reveal differences in BPS by concordance/discordance that were not visible without such stratification, racial/ethnic concordance was not significantly associated with BPS in either urban or nonurban settings for whites or African Americans/Latinos. This finding held for analyses of FCC as well (data not shown). One exception is that African Americans/Latinos with discordant providers in urban areas (but not in nonurban areas) received significantly higher BPS than those with no regular provider. Similar to the overall findings that suggests that discordant providers may perceive minority children to be higher risk (leading to a greater provision of BPS), stratified analysis suggests that this may be particularly true in urban areas. Because of smaller sample size for nonurban minorities, however, findings should be considered preliminary and replicated in future studies before conclusions are drawn.

Another factor to consider in this study is that the difference in FCC was found between those with and without a regular provider but not between those with a concordant versus discordant provider. Parents who do not receive high quality well-child care may elect to change their provider, reducing continuity of care and potentially increasing the difference in reports of FCC between those with and without a regular provider. The continuity of positive experiences with parents who remain with their regular providers may, in turn, overshadow any potential benefit gained by race/ethnicity concordance. Although the NSECH does not provide this information, racial/ethnic concordance might be more salient in team care. Without continuity of care, there may be more potential for parents and providers to rely on stereotypes and snap judgments during well-child care visits. Future studies should consider such team care settings.

Although this study presents the first nationally representative data on race/ethnicity concordance and well-child care, the results should be interpreted with caution. First, the NSECH is cross-sectional and does not allow for inferences of causality. Second, relatively small samples in subgroup analyses by race/ethnicity may not allow for the detection of very small differences in BPS and FCC. Even though the NSECH over-sampled both African Americans and Latinos, the ability to identify large numbers of minority children with concordant providers, in particular, is a trade-off of this national, cross-sectional approach. Third, race/ethnicity is a socially constructed variable, and parent reports of provider race/ethnicity may not be precise.^{58,59} It may be important, however, to know the perceived race/ethnicity of the provider by the parent, rather than actual race/ethnicity, because the outcomes under study are also parent reported. In future work, it may be equally important to know how providers perceive the race/ethnicity of the family to understand well-child care interactions. The NSECH also did not collect data on ethnic subgroups (e.g., Mexican or Cuban) that may allow for exploration of the nuances of multiculturalism.^{60,61}

In conclusion, this nationally representative study suggests that despite racial/ethnic differences in the likelihood of having a regular concordant provider of well-child care, there were no disparities in BPS or FCC associated with concordant versus discordant parent-provider pairs, even after stratifying the results by geographic location. There were, however, consistent disparities in FCC (all groups) for children without a regular provider compared to children with either concordant or discordant pairs. Before conclusions are drawn, these findings should be replicated and extended to older children during both sick and well-child care. Nonetheless, this study suggests that efforts to improve aspects of well-child care overall may do well to focus first on the social, cultural, and linguistic factors that may impact having any regular provider.

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