Which Sources of Child Health Advice Do Parents Follow?

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Which Sources of Child Health Advice Do Parents Follow?

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Abstract

Background: Parents consult other child health information sources in addition to the pediatrician. There are little data describing which of these sources parents are likely to follow. *Methods:* The authors surveyed 543 parents of patients in 6 pediatric practices in southeast Michigan shortly after an office visit to determine the degree to which parents report following advice from 7 common child health sources on a scale from 1 (*don't follow at all*) to 7 (*follow completely*). *Results:* Pediatrician advice was more completely followed than other sources with mothers a distant second. Although 96% of parents used the Internet to find child health information, few followed most of the advice found there. White parents were 3 times more likely than African Americans to follow advice from television and newspapers. *Conclusion:* Parents rely on child health advice from the pediatrician and their mother. Other sources are consulted but not widely followed.

Keywords

parents, adherence, health information seeking

Introduction

Prior studies have examined which sources parents consult when seeking child health information,[1-5] but few have directly compared the degree to which parents report actually following advice from other sources. Although the pediatrician is the source of child health information most often consulted by parents,[2,3,6,7] there are few data describing the degree to which parents rely on child health advice from other sources.

Parents have a wide variety of sources to consult when searching for child health information. According to a recent survey, 94% of those with incomes greater than $75 000, and 94% of college graduates have access to the Internet, with the vast majority having high-speed Internet access.[8] Of adults with Internet access, 61% go online to find health information.[9] Child health information is easily found on the Internet from many reputable sources, such as the National Institutes of Health, WebMD, and the websites of various children's hospitals. However, a broad assortment of information about child health is also available whose reliability is uncertain. Some of this information likely conflicts with physician-provided advice.[10]

In addition to the Internet, there are a myriad of magazines and books devoted to parenting. Some promote alternative practices along with standard pediatric recommendations.[11-13] Knowing which sources of child health advice parents rely on in addition to the pediatrician can inform the design of educational materials to reinforce important health messages. Our study was designed to determine which common sources of child health advice parents' report following most closely and whether there were significant racial and demographic differences in these sources.

Methods

Participants

As part of a larger study designed to validate instruments measuring various aspects of the parent–physician relationship, parents who were accompanying their child to a primary care doctor's visit were approached for participation by a research assistant in the reception area

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prior to the child's appointment. Parents were recruited consecutively from 6 community-based, university-affiliated pediatric primary care clinics in southeast Michigan between January and April 2006. Parents were not approached if their child appeared to require undivided parental attention because of behavior or illness. Parents were eligible if they had a child ≤18 years old and could speak and read English easily.

Survey Administration

Parents completed a brief demographic questionnaire prior to seeing the doctor, including the reason for the visit (well-child exam, sick visit, or other). They were interviewed by phone by a member of the research team not affiliated with the physician's practice within 2 weeks of that visit. Parents were asked the following question about each of 7 common sources of child health information, "When you have a question or concern about your child's health, how much do you follow the advice of . . .?" Listed information sources were the respondent's mother, other family members, friends, the child's physician, books on parenting, television or newspapers (the media), and the Internet. Parents rated each individual information source on a 7-point scale from 1 (*don't follow at all*) to 7 (*follow completely*).

Variables

Our outcome variable was the parent's rating of how closely they followed the advice received from each information source. Demographic variables included parents' self-reported race (using US Census categories), parental educational attainment, marital status, and age of youngest child. The child's health insurance status (public, private, or none) was used as a rough proxy for family income since a child's eligibility for Medicaid or State Children's Health Insurance Program (SCHIP) eligibility is based almost exclusively on family income.

Data Analysis

We consolidated parental ratings into 3 categories, "Follows Completely" (ranking of 6 or 7), "Follows Somewhat" (ratings of 5 to 3), and "Does Not Follow" (ratings of 1 and 2). Results were calculated only for parents who reported using the listed source for child health information. We created a dichotomous variable, "Follows Completely," for use in the logistic models to further examine the characteristics of those parents who follow advice from sources other than the child's pediatrician.

Parental race was categorized as white, African American, and other. Parents who selected more than one racial group and those who selected a race other than white or African American were classified as "other." We included Hispanic parents in this category because of their small numbers and diversity of racial group selections.

Four categories were used to describe parental educational attainment: "High school graduate or less," "Some college," "4-year college graduate," and "Any postgraduate education." Child health insurance status was categorized as only private, any public, or none. We categorized parental marital status as married/living with a partner, divorced/widowed/separated, or never married.

Because younger children generally have more visits with their physician than do older children, their parents may have more exposure and opportunity to obtain physician counseling and possibly be less inclined to follow advice from alternative sources, regardless of the age of their other children. To examine this association we compared the responses of parents whose youngest child <3 years with those of parents with only older children (any child <3 years old vs no child <3 years).

We generated descriptive statistics for the demographic variables of the entire sample. For each information source we calculated the percentage of parents in each rating category. To determine whether the degree to which parents follow information from each source is associated with any demographic characteristic, we used logistic regression to create separate models for each of the 7 sources of information adjusted for all demographic variables. All analyses were conducted using SAS, version 9.1. This study was approved by the Institutional Review Board of the University of Michigan Medical School.

Results

We approached 998 parents for participation, of whom 806 were eligible, enrolling 669 (83% of those eligible). Phone interviews were completed at 2 weeks by 543 parents (81% response). Participating parents were predominately non-Hispanic white, married or living with a partner, and had education beyond high school. Less than a third (29%) of the children had any form of public health insurance, though this varied by race. Just more than a third of the parents were bringing their child to a well-child visit at the time of enrollment (Table 1).

Information Sources Consulted

More than 90% of parents reported consulting each of the listed information sources for child health advice with near universal use of television, newspapers, books, and the Internet (Table 2). Equally high proportions of

Table 1. Demographic Characteristics (n = 543)

	Percentage (n)			
	All	White (n = 432)	African American (n = 46))	Other (n = 64)
Age (years)				
Mean (range)	35 (18-63)	35 (18-63)	34 (19-58)	33 (18-53)
Marital status				
Married/living with partner	81 (441)	84 (363)	61 (28)	77 (49)
Divorced/widowed/separated	9 (47)	8 (34)	11 (5)	13 (8)
Never married	10 (55)	8 (35)	28 (13)	11 (7)
Child's health insurance				
Private only	70 (377)	74 (319)	49 (22)	55 (35)
Any public	29 (159)	25 (109)	49 (22)	44 (28)
None	1 (5)	1 (3)	2 (1)	2 (1)
Parent education				
High school graduate or less	21 (113)	21 (92)	20 (9)	19 (12)
Some college	34 (184)	32 (138)	48 (22)	38 (24)
College graduate	23 (123)	23 (99)	17 (8)	23 (15)
Postgraduate	22 (121)	24 (101)	15 (7)	20 (13)
Age of youngest child (years)				
<3	46 (250)	44 (189)	52 (24)	56 (36)
≥3	54 (292)	56 (242)	48 (22)	44 (28)
Physician visit type				
Sick	47 (253)	48 (206)	46 (21)	39 (25)
Well-child exam	38 (205)	37 (208)	37 (17)	47 (30)

Table 2. Percentage of Participants Using Source for Child Health Information

	Percentage (n)			
	All (n = 543)	African American (n = 46)	White (n = 432)	(n = 64)
Seeks advice from mother	94 (507)	91 (42)	94 (405)	98 (63)
Seeks advice from family	98 (530)	93 (43)	98 (424)	97 (62)
Seeks advice from friends	98 (531)	98 (45)	98 (423)	98 (63)
Seeks advice from doctor	98 (536)	98 (45)	99 (427)	98 (63)
Seeks advice from TV and newspapers	98 (534)	98 (45)	99 (426)	97 (62)
Seeks advice from parenting books	98 (531)	98 (45)	98 (422)	98 (63)
Seeks advice from the Internet	96 (521)	96 (44)	96 (416)	94 (60)

African American and white parents reported using the Internet to find child health advice (96%).

Though African American parents were significantly less likely than white parents to have asked their mother for child health advice, the actual difference was slight (91% vs 94%; $P = .04$). There were no racial differences in use of the other sources.

Ratings of Sources

Advice from the child's pediatrician was completely followed by 94% of parents, whereas less than 10% reported completely following advice from the Internet, television, or newspapers. Though other sources were followed more closely than the media or the Internet, no source approached the degree to which parents endorsed following the pediatrician's advice (Figure 1). Mothers were a distant second.

Certain parental characteristics were associated with the degree to which parents reported following advice (Table 3). For example, 96% of white parents reported completely following physician advice, whereas only 87% of African American parents reported that degree of adherence. Conversely, African American parents were

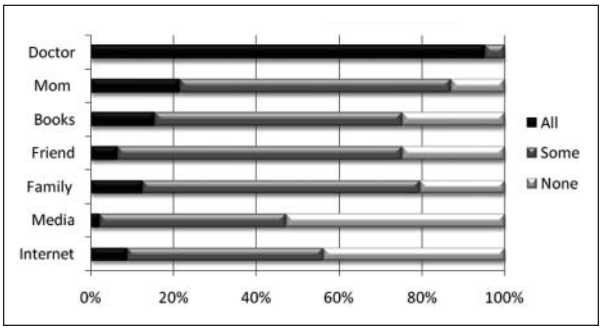

Figure 1. Amount of advice followed by parents

more likely than white parents to completely follow all of their mother's advice. Single parents were twice as likely than other parents to completely follow their mother's advice, even after controlling for race (Table 3).

Although African American and white parents reported consulting the media and the Internet for child health advice in similar numbers, no African American parent reported completely following the child health advice found on television, in newspapers, or on the Internet. For white and other race parents, education was an important factor in influencing whether they followed Internet advice. White and other race parents with postcollege education were much more likely than less educated parents to completely follow Internet-provided health advice (Table 4). Parental demographic characteristics were not significantly associated with the degree to which parents completely followed child health advice from family, friends, and books.

Discussion and Conclusion

Discussion

Parents seek information about their child's health from a variety of sources other than the pediatrician. Nevertheless, it is still the pediatrician's advice that parents follow most closely. Even highly educated parents, who are more likely to completely follow advice from the Internet than other groups of parents, still follow more of the pediatrician's advice.

Whereas prior studies have asked participants to identify where they look for child health information or to note the trustworthiness of specific health information sources, our study is unique in that we asked parents to report how closely they actually followed the advice received from the each source.[4,5,14-16] Though many sources may be consulted or even perceived as trustworthy, the most important metric is which advice parents ultimately follow, especially when recommendations may be conflicting.

We sampled from a general population of parents seeking care for their children for a wide variety of common childhood illnesses and conditions in primary care pediatricians' offices. Advice for managing these problems is readily available from many sources and advice that conflicts with standard medical recommendations is easily found. Prior studies of parent health information seeking surveyed parents whose children had specific diseases or conditions where information outside of the medical context may be less available, or less understandable.[4,5,16-19]

There were significant differences in income between the African American and white parents in our sample. Nearly half (49%) of African American parents had a household income that qualified their children for some form of public health insurance. For 2006, that level was at or below 200% of the federal poverty guidelines. Only 25% of white parents in our sample had a similar level of income. Despite this income difference, the proportion of African American and White parents who reported using the Internet to find child health information was equally high at 96%. This is a higher rate of African American Internet usage for health information than in previous reports.[8]

Our findings also suggest that African American parents are less receptive to physician advice and more likely to follow their mother's child care advice than white or other race parents. Our prior work has also shown that African Americans have lower levels of trust in their child's physician than white parents.[20] The difference we found in the degree to which white and African American parents follow the pediatrician's advice may be the result of distrust of the child's pediatrician, conflicts between maternal and pediatrician-provided advice, or some combination of the two. Further research is needed to clarify this issue.

Limitations

Like all studies that rely on self-report, our results may be biased by social desirability. On enrollment, parents were assured that their responses were confidential and would not be revealed to their child's physician. This assurance was repeated a few weeks later when a research team member not affiliated with the pediatrician contacted the parent for the follow-up interview. Nevertheless, some parents may have believed that the interviewers were associated with their pediatrician. This may have led some parents to overreport the extent to which they follow physician advice. We believe that this effect is likely minimal. The interview took place a few weeks after the office visit

Table 3. Adjusted Odds of Completely Following Advice From Child's Physician or Respondent's Mother[a]

	Percentage (n)	Odds Ratio (95% Confidence Interval)
Completely follows doctor's advice		
White	96 (411)	Reference
African American	87 (39)	0.2 (0.07, 0.62)
Other	94 (59)	0.5 (0.16, 1.61)
Married/living with partner	94 (415)	Reference
Divorced/widowed/separated	94 (44)	1.2 (0.26, 6.01)
Never married	93 (51)	1.1 (0.25, 4.86)
Public insurance	94 (148)	Reference
Private insurance	95 (355)	1.4 (0.4, 3.27)
≤High school graduate	96 (107)	Reference
Some college	95 (174)	0.72 (0.22, 2.40)
4-year college	95 (115)	0.72 (0.20, 2.61)
Postcollege education	95 (113)	0.70 (0.19. 2.56)
Child <3 years old	94 (235)	Reference
Child ≥3 years old	94 (274)	0.8 (0.33, 1.80)
Completely follows mother's advice		
White	19 (76)	Reference
African American	38 (16)	2.5 (1.18, 5.28)
Other	29 (18)	1.7 (0.95, 3.16)
Married/living with partner	18 (80)	Reference
Divorced/widowed/separated	17 (8)	1.06 (0.43, 2.6)
Never married	40 (22)	2.2 (1.06, 4.51)
Public insurance	28 (43)	Reference
Private insurance	18 (65)	0.69 (0.39, 1.22)
≤High school graduate	26 (28)	Reference
Some college	22 (38)	0.81 (0.46, 1.41)
4-year college	26 (31)	0.99 (0.55, 1.80)
Postcollege education	11 (12)	0.33 (0.16, 0.71)
Child <3 years old	22 (55)	Reference
Child ≤3 years old	19 (55)	1.1 (0.66, 1.67)

[a]Adjusted for all demographic variables.

and was conducted by phone to create both spatial and temporal distance from the physician's office. Nearly all the parents in our sample reported using alternative information sources to find information about their child's health and were not reluctant to admit that fact. Nevertheless, even if some overreporting occurred, the magnitude of the difference we found between the degree to which parents reported following physician advice compared with advice from other sources makes it unlikely that this difference is because of social desirability alone.

We asked parents about following a source's advice when they had a question about their child's health, without reference to any specific issue, to obtain a broad assessment of parental ratings of each information source. It is possible that our results may have been different had we asked about specific topics. For example, parents who refuse to immunize their children for nonmedical reasons have been shown to be less trusting of their child's physician and rely more on information from alternative child health sources.[6] We also cannot know the degree to which parents actually follow the advice from any source.

Our findings may not be applicable to the small, but significant minority of parents whose children's health care is more fragmented, do not use a physician's office as their child's regular source of health care, or those who shun traditional medicine. In addition, we did not include parents who could not speak English or were recent immigrants. Therefore, we were unable to identify preferred sources of child health information for these populations, which should be a priority for future research.

Demonstrating that parents preferentially follow physician advice over the advice of other sources could well be considered research that proves the obvious.

Table 4. Adjusted Odds of Completely Following Advice From the Media or the Internet[a]

	Percentage (n)	Odds Ratio (95% Confidence Interval)
Does *not* follow media advice		
White	98 (417)	Reference
African American	100 (45)	3.1 (1.47, 6.55)
Other	95 (5)	0.7 (0.42, 1.23)
Married/living with partner	98 (427)	Reference
Divorced/widowed/separated	96 (44)	1.1 (0.56, 2.1)
Never married	94 (3)	1.1 (0.59, 2.19)
Public insurance	96 (150)	Reference
Private insurance	98 (365)	0.9 (0.58, 1.44)
≤High school graduate	99 (110)	Reference
Some college	97 (176)	0.27 (0.03, 2.25)
4-year college	98 (117)	0.36 (0.04, 3.46)
Postcollege education	98 (117)	0.53 (0.05, 5.95)
Child <3 years old	98 (241)	Reference
Child ≥3 years old	98 (281)	1.3 (0.88, 1.80)
Completely follows Internet advice		
Married/living with partner	8 (36)	Reference
Divorced/widowed/separated	7 (3)	0.4 (0.10, 1.77)
Never married	14 (7)	0.6 (0.24, 1.36)
Public insurance	8 (12)	Reference
Private insurance	9 (34)	0.9 (0.43, 1.70)
≤High school graduate	4 (4)	Reference
Some college	10 (17)	2.7 (0.89, 8.31)
4-year college	10 (12)	2.9 (0.91 9.33)
Postcollege education	11 (13)	3.3 (1.03, 10.30)
Child <3 years old	8 (18)	Reference
Child ≥3 years old	10 (28)	1.4 (0.72, 2.51)

[a]Adjusted for all demographic variables.

However, pediatricans may be appropriately concerned about whose advice parents actually follow. Physician advice competes with continual media exposure of celebrities and others who criticize standard child health advice and/or promote nontraditional alternatives and the easy availability of inaccurate child health information. Our study attempted to answer the question of whether the pediatrician's advice will still be followed after the family leaves the office and talks to friends and family, watches television, and searches the internet for more information. Our study suggests physician advice retains a privileged status among all groups of parents. However, more work needs to be done to examine the dynamics of the parent–pediatrician relationship for African Americans to better understand why they are less likely to follow their child's pediatrician's advice.

Authors' Note

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Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interests with respect to the authorship and/or publication of this article.

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