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Parenting Sources: How Do Parents Differ in Their Efforts to Learn About Parenting?

We surveyed randomly selected parents in one state (N = 1,081) to examine sources they used to gain child-rearing information. On average, parents used five sources, most commonly books and family members. Usage patterns generally followed the "digital divide" perspective whereby higher education levels were associated with greater usage. Logistic regression results of Internet use showed, however, that being younger and unmarried increased the likelihood of use, indicating the Internet's potential for reaching potentially vulnerable parents.

Parents seem to recognize the importance of effective parenting. They demonstrate this in part by seeking information on effective parenting techniques. For instance, parents have expressed interest in learning how to encourage children's learning and how to establish disciplinary procedures (Walsh, 2002; Young, Davis, Schoen, & Parker, 1998). They also seek to understand the process by which children grow and develop (Koepeke & Williams, 1989; Schultz & Vaughn, 1999). Given parents' central role in their children's development (see, e.g., Sanders, 2000; Weiss, Lopez, & Caspe, 2006) and their interest in learning about childrearing, we wanted to learn more about where parents get their information about

parenting and whether parents of particular demographic groups were more likely to use certain sources.

Studies about the resources parents use to learn about parenting are limited in that research tends to focus on one resource (e.g., parenting groups) or type of resource (e.g., professional or nonprofessional) often among a convenience sample. Most studies do not examine parents' use of a wide variety of sources with a large, randomly selected group of parents (e.g., Allen & Rainie, 2002; Ateah, 2003; Rothbaum, Martland, & Jannsen, 2008; Schultz & Vaughn, 1999). The Internet, in particular, is a growing childrearing resource (Fogel, 2004), yet little is known about parents' use of the Internet to gain childrearing information. In addition, available studies lack consensus on demographic characteristics related to source use (e.g., Carroll, Zimmerman, Rivara, Ebel, & Christakis, 2005; Fuligni & Brooks-Gunn, 2002; Koepeke & Williams, 1989). A consideration of both the type of parenting information sources and the demographic profile of parents using each source is important because parents of all backgrounds are receptive and eager for resources to improve their parenting (Young et al., 1998).

The purpose of this study was to examine the resources parents used to gain knowledge of parenting practices. We also investigated variations in resources used on the basis of parental demographic characteristics. Finally, we examined the use of the Internet for parenting information in a multivariate context. Our focus on parents' use of the Internet is important because the Internet

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is a growing resource for parenting information and provides a wide array of information (e.g., parenting chat rooms and websites dedicated to promote healthy child development). To maximize the Internet's capability in delivering efficient, effective childrearing information to parents, it is worthwhile to consider who is using the Internet for childrearing information. Through identifying parents who use the Internet to learn about parenting, our analysis provides information regarding how best to use this potentially efficient, cost-effective medium to appeal to current users and attract offline parent groups.

The Knowledge Gap and Parent Resource Use

What accounts for demographic differences in parents' use of resources to gain parenting information? The knowledge gap hypothesis (Tichenor, Donohue, & Olien, 1970) offers one perspective from which to understand and explain these differences. The knowledge gap hypothesis states that information is not equally distributed across population subgroups because of differences in access to the medium, retrieval, absorption of information, and so forth (Tichenor et al.). Furthermore, the growth of knowledge is believed to be greater among "higher status segments" (Tichenor et al., p. 160). Tichenor and colleagues' work, as well as more recent work (Finnegan & Viswanath, 2002), provides evidence for the knowledge gap hypothesis.

Although the knowledge gap hypothesis was originally applied to socioeconomic status (SES) differences in knowledge and resources (Tichenor et al., 1970), its application has been extended to studies that explored the effects of other demographic differences. For example, O'Malley, Kerner, and Johnson (1999) found that, in addition to SES factors, ethnic group, age, and gender were associated with differences in the use of resources utilized to gain information about health, particularly cancer. We considered how demographic factors and parental education level may also have been associated with the use of various childrearing resources.

The knowledge gap hypothesis is particularly applicable to our multivariate analysis of Internet use given that the Internet may be less accessible than other types of media (e.g., Akister & Johnson, 2004; Allen & Rainie, 2002; Kind, Huang, Farr, & Pomerantz, 2005) because it requires computer access that everyone may not be able to afford. Recent literature has applied

the ideas of the knowledge gap hypothesis to explore differences in the use of the Internet and referred to the knowledge gap as a "digital divide" (Bonfadelli, 2002). The digital divide is based on the idea that individuals with high SES are more likely to gain information from the Internet when compared with those with low SES (Rothbaum et al., 2008). Our examination of demographic differences in use of the Internet to access parenting information was informed by the concept of a digital divide. Here, we built on the findings of previous demographic research to examine differences in Internet use for parenting information on the basis of a wide array of demographic characteristics. We included nativity, ethnicity, and population density in the analysis, understudied, yet potentially important, variables when examining parenting information sources including the Internet. A previous study examining parents of adolescents found that Hispanics used the Internet for health information less than non-Hispanics (Cohall, Cohall, Dye, Dini, & Vaughan, 2004). Studies have also shown that immigrant groups used written materials for parenting information less than European, nonimmigrant mothers (Bornstein & Cote, 2004; Young, 1991). Population density may also influence source use. Hall and Irvine's (2009) content analysis of an online parenting support group suggested that the Internet may be a particularly important resource for rural parents who have limited access to other sources.

Sources of Parenting Information

Parents receive information and advice about parenting from a variety of nonprofessional, professional, and media sources (Fuligni & Brooks-Gunn, 2002; Goodnow, 2002). Nonprofessional sources include family members, friends, and other parents in the community (Ateah, 2003; Fuligni & Brooks-Gunn; Koepke & Williams, 1989; Schultz & Vaughn, 1999). A majority of parents (75%–87%) reported receiving parenting information from family members, usually their own parents (Akister & Johnson, 2004; Schultz & Vaughn). Many parents (60%–85%) also indicated using friends or acquaintances as sources for parenting information (Koepke & Williams; Shwalb, Kawai, Shofi, & Tsunetsugu, 1995).

Parents may go outside of their personal networks to seek parenting ideas from professional

sources by attending formal parenting classes or talking to their children's teachers, either to complement information from family and friends or as an exclusive source of information (Ateah, 2003). Professional sources appear to be used less commonly than nonprofessional ones (Shwalb et al., 1995). Studies found that between 31% and 34% of parents report attending parenting classes or workshops (Ateah; Fuligni & Brooks-Gunn, 2002; Shwalb et al.; Young et al., 1998), although one study of Canadian parents with children 6 years old and younger found that 60% had attended some sort of parenting group (Koepeke & Williams, 1989).

In addition to professional and nonprofessional resources, media outlets offer additional parenting information. Numerous books, magazines, television advertisements or shows, radio advertisements or shows, newspapers, and Internet sites are targeted toward parents (for a review, see Simpson, 1997). Over 2,500 parenting books have been published, and sales consumed more than 1% of the total book market (Simpson). Many newspapers offer parenting advice columns and localized parenting-specific publications, such as *The Boston Parents' Paper*, available in Boston, MA (Simpson). Television and radio also tailor programs to parents. The U.S. television show *Supernanny* gained the attention of 9 million viewers during the 2006–2007 season (Series 2006-07 Primetime Wrap Up Statistical Table, 2007). The *Dr. Laura* radio show, featuring Dr. Laura Schlessinger, addresses many parenting issues and has 275 affiliates (Laura Schlessinger, n.d.). Some media-based parenting information sources combine delivery methods to encourage healthy parenting practices. For instance, The Partnership for a Drug-Free America (PDFA) (Partnership for a Drug-Free America, 2004) utilizes several media-based strategies (e.g., television, radio, print media, video media, and the Internet) coupled with public communications outreach to convey antidrug messages to children and advice about youth substance abuse prevention to parents.

Evidence suggests that parents utilize media outlets for childrearing information, typically in order to complement nonprofessional and professional resources. Approximately 71%–74% of parents of young children reported using books, newspapers, magazines, television, or videos to help to answer their questions about parenting (Fuligni & Brooks-Gunn, 2002;

Young et al., 1998). Although a variety of media sources are available for parents to access, much of the research in this area did not distinguish between the different media forms. We addressed this gap in our study by recognizing five media sources (i.e., books, television, radio, newspapers, and the Internet). This distinction will help to clarify where parents go for parenting information, which can guide efforts to spread messages about effective childrearing to parents.

The Internet as a parenting resource. Websites about parenting are the second-most popular type of family life education website behind websites about human development and sexuality (Elliott, 1999), and a variety of individuals, including practitioners, use parenting websites for childrearing information (e.g., Siliman, 2004; Steimle & Duncan, 2004). With the abundance of parenting information available on the Internet, we were interested in learning more about which parents use the Internet to learn about parenting. Available evidence lacked a demographic portrait of parents who use the Internet specifically for childrearing information, despite the fact that the use of the Internet for this information is increasing (Fogel, 2004). The Internet has become a central component of the PDFA campaign. Its websites, including www.drugfree.org and www.timetotalk.org, dedicate themselves to providing parents with information and resources. The PDFA proclaims its website as a centerpiece of their effort to equip parents with tools to promote healthy families (Partnership for a Drug-Free America, 2008).

Websites targeting effective parenting and healthy families align with the needs and behaviors of Internet users. Using data from a nationally representative sample of adults, Allen and Rainie (2002) found that 70% of parents with children under 18 used the Internet compared with only 53% of nonparents. Parents were particularly enthusiastic about the Internet in part because they recognized the importance for their children to develop Internet familiarity and skills for later success in life. Parents not online were more likely to report plans to go online in the next 5 years compared with nonparents, further illustrating the Internet's usefulness in reaching parents. Results also indicated that online parents were more interested in seeking health and medical information from the Internet, relative to online nonparents. Although the researchers did not measure the use of

the Internet for parenting information, their findings suggested that the Internet is a viable source to disseminate parenting information. Other research underscores the importance of the Internet as a source for health and parenting information (Atkinson, Billing, Desmond, Gold, & Tournas-Hardt, 2007; Carroll et al., 2005). For instance, among low-income parents residing in a rural area, over 65% reported computer use as well as Internet access and 86% searched the Internet for medical information, including health information or educational materials for their children. In addition, 55% of nonusers indicated their desire to use the Internet in the future (Atkinson et al.).

Demographic Differences in Resource Use

Parents differ in the way in which they seek out parenting resources. Almost all parents use at least some form of nonprofessional, professional, or media resource to learn about childrearing practices. Parents of different demographic groups differ, however, in both the type and number of parenting sources used. The few studies examining demographic differences in the use of parenting resources found that parental gender, age, race, marital status, and education level relate to the variety and amounts of resources that parents use (Fuligni & Brooks-Gunn, 2002; Koepke & Williams, 1989; Rothbaum et al., 2008; Shwalb et al., 1995). Consistently, research has shown that education level is positively related to the use of both professional and media resources (Fuligni & Brooks-Gunn; Koepke & Williams; Rothbaum et al.). Relationship patterns of other demographic features are inconclusive, however. In some cases, younger parents and parents with less than a high school diploma were more likely to report using their families for parenting information (Fuligni & Brooks-Gunn). Other research has shown that mothers utilized more parenting resources than fathers (Shwalb et al.). In other cases, no demographic differences were found (Koepke & Williams).

Although little work examined parents' use of the Internet specifically for parenting information, several studies have examined demographic differences in parents' general use of the Internet. Emerging evidence indicates that parents with more education and higher incomes appear to have greater access to the Internet, use it more, and experience more benefits of use

than those with less education and from lower-income backgrounds (Kind et al., 2005; Martin & Robinson, 2007; Rothbaum et al., 2008). In other cases, however, there was no evidence of a digital divide. SES was unrelated to Internet access or use (Carroll et al., 2005; Sarkadi & Bremberg, 2005), and low-income groups reported high levels of use (Atkinson et al., 2007). Investigations on racial differences in the use of the Internet have shown that although Whites used the Internet more than Blacks in the general population (Horrigan et al., 2003), Black parents with at least one minor child at home were more likely to use the Internet compared with White parents (Spoonster & Rainie, 2000).

Purpose of Current Study

An examination of sources that parents use for childrearing information as well as demographic differences in usage is important because a wide spectrum of parents seek out information to improve their parenting (Young et al., 1998). Widespread, readily available information is likely to provide diverse parents with knowledge to become more effective parents and to nurture their children's health and well-being. A multivariate examination of parents' Internet use provided the opportunity to identify the Internet's demographic audience, which can lead to more effective information delivery to appeal to online parents as well as to attract offline parents.

Here, we analyzed self-reported data from a group of randomly selected parents of young children in one state to address three research questions: (a) What resources do parents use to learn about childrearing? (b) What demographic differences exist with respect to the types of resources parents use? (c) What is the prevalence of Internet use as a source of parenting information among parents and what demographic characteristics predict use?

With respect to the current literature on parents' use of nonprofessional, professional, and media resources for parenting information, our study had three unique aspects. First, we differentiated among parents' use of several parenting sources, including a variety of media-based sources, in a random sample of parents from one state. Previous studies have collapsed media types together (Fuligni & Brooks-Gunn, 2002), examined only one media source (Rothbaum et al., 2008), or used convenience sampling or

sampled parents from one community (Ateah, 2003; Koepke & Williams, 1989). In order to describe the volume of resource use, we also measured the number of different sources parents use. Second, we investigated parental demographic variations in source usage. In addition to factors examined in prior studies (i.e., age, gender, race, and education level), we also examined differences on the basis of nativity, ethnicity, and residence population density. Third, we examined the prevalence of Internet use as a source of parenting information and tested for differences on the basis of parental demographic factors in a multivariate context. Although previous work described parents' use of the Internet, this study uniquely examined the Internet specifically for parenting information by identifying predictors of use through logistic regression techniques.

METHOD

Participants and Procedures

We used data from a self-reported survey of parents with children 10 years old and younger ($N = 1,240$) from a larger study designed to assess current parenting practices. The larger study serves as a baseline for developing interventions to strengthen parenting practices among parents of young children in order to prevent or reduce underage drinking as youth move into adolescence. Parents were randomly selected from a population of parents residing in a southeastern state in 2007. The survey instrument took approximately 10 minutes for participants to complete the entire survey. The analysis examined the survey items regarding whether respondents had used various resources for parenting information. Respondents were asked to base their responses on their oldest child in the household, 10 years or younger (the reference child). Respondents resided in one of eight counties in urban, suburban, and rural areas of the state. The counties were selected through a stratified process on the basis of population density and region. Within each county, parents were randomly selected from the American Student List database of eligible parents. To maximize the sampling frame and response rates, respondents were contacted either by telephone or mail. If the parent was not available, the interviewer (or written instructions for mail respondents) asked for another caregiver

residing in the household responsible for a child 10 years old or younger to complete the survey. Response rates per county ranged from 13% to 35%. The average response rates were 23% by telephone and 16% by mail yielding a 19% overall response rate, which is deemed acceptable (Dillman, 2007). The final sample included 425 telephone respondents (39%) and 656 mail respondents (61%) resulting in a total sample size of 1,081 parents who provided responses to all items. Telephone and mail respondents reported using similar levels of most sources; however, telephone respondents were more likely to report using family members, the television, and the Internet. Because of these differences, we included mode of survey in the logistic regression of Internet use.

Demographic profile. The demographic profile of respondents was as follows: over two thirds of respondents were mothers and 31% were fathers; a substantial majority (84%) were married. Approximately 16% of respondents were in their 20s, 52% in their 30s, and 28% in their 40s. In terms of ethnicity, 75% of parents were White, 14% were Hispanic, and 7% were Black, with the few remaining parents of other races (e.g., Asian, Native American, and Hawaiian). Immigrants comprised 11% of respondents. Seventeen percent resided in a rural county. Collectively, respondents reported high levels of formal education—85% had more than a high school diploma and 52% had a bachelor's degree or more. We asked parents about the oldest child in the household aged 10 years or younger, which resulted in an older sample of children such that two thirds of reference children were 6 years old or older. Approximately 30% of parents had one child in the household, 43% had two, and 27% had three or more. Overall, relative to the populations of each sampled county, White, married, highly educated parents and those in their 30s and 40s were overrepresented, whereas younger, Black, single parents and those without college degrees were underrepresented.

Assessment of Parenting Information Source

Parents were asked to specify whether they had ever used any of nine sources for parenting information for the reference child (the oldest child 10 years or younger) and asked to specify any additional sources. To generate a list of potential sources, we created a preliminary

list from examining current literature and then asked childrearing professionals and parents for additional sources. The list included two nonprofessional sources (family members and friends), two professional sources (teachers or school personnel and parenting class), and five media sources (books or magazines, television, radio, newspaper, and the Internet). Responses were coded as “1” if parents indicated that they used a particular source or “0” otherwise. Few respondents indicated that they used other resources. The most common resource other than those listed was church ministers or pastors, mentioned by four respondents.

Analysis

Frequency distributions were examined to determine the percentage of parents who reported using each parenting source. To calculate the number of sources that parents used, we added the number of positive responses from the list of nine sources and added any additional sources parents mentioned when asked to specify other sources. Pearson correlations were used to examine significant relationships between sources. Design-based Wald χ^2 tests for categorical variables and Wald *F* tests for continuous variables were used to identify associations between demographic characteristics and sources. Binomial logistic regression was used to examine relationships between demographic characteristics and use of the Internet for parenting information. Binomial models are appropriate for a dichotomous dependent variable. In our model, respondents who used the Internet as a parenting resource were compared with those who did not (the reference category). Child’s age (coded numerically) and survey mode (mail or

telephone) were included as control covariates in the regression analysis. There was no evidence of multicollinearity in our model (VIF = 1.21; Allison, 1999).

RESULTS

Prevalence of Resource Use

Parents received information from a variety of sources. The most common source was books or magazines (94%) followed by family members (80%). Many parents also received parenting information from school staff (70%), friends (68%), television (60%), and the Internet (76%). Less common sources of information were parenting workshops (29%), the radio (32%), and the newspaper (40%). Parents also sought information from many sources averaging 5.47 sources. Only 15 respondents (1.4%) reported that they did not receive information from any source, whereas 61 respondents (5.6%) reported that they received information from all nine listed sources.

We found positive correlations between certain sources that parents used (see Table 1). Generally, stronger correlations were found within rather than between the nonprofessional, professional, and media categories. Applying Cohen’s (1988) classification of correlation strength (i.e., weak correlation effects = .1 – .3; medium correlation effects = .3 – .5) to interpret results of the correlation analyses, the only correlations to reach medium strength were within the media category (i.e., between television and newspaper, $r = .32$; between books/magazines and the Internet, $r = .32$). Together, the relative weakness of the correlations suggests that no two resources have much overlap with one another.

Table 1. *Pearson Correlations Among Sources of Parenting Information (N = 1,081)*

Variables	1	2	3	4	5	6	7	8
1. Family	—							
2. Friend	.28***	—						
3. Teacher	.13***	.24***	—					
4. Class	.04	.11***	.20***	—				
5. Books	.12***	.21***	.22***	.16***	—			
6. Television	.10***	.24***	.29***	.12***	.20***	—		
7. Radio	.04	.14***	.15***	.22***	.13***	.20***	—	
8. Newspaper	.06*	.23***	.26***	.18***	.14***	.32***	.28***	—
9. Internet	.12***	.20***	.27***	.18***	.32***	.26***	.09**	.15***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2. Wald χ^2 and F Tests for Parent Demographic Variables and Sources of Parenting Information (N = 1,081)

Variable	Sources of parenting information									Number of sources
	Family	Friend	Teacher	Class	Books	TV	Radio	Newspaper	Internet	
Gender										
Mother	82.0*	74.6***	72.5**	31.3**	96.7**	63.6***	32.3	40.1	79.7***	5.7***
Father	76.6	52.3	64.0	22.2	86.8	52.0	29.4	38.7	67.3	4.9
Age										
Under 30	85.9***,a,b	63.3	61.6**,a	23.7	95.5	63.8	20.9*,***,a,b	24.9***,a,b	80.2***,b	5.2
31–40	81.7	69.2	72.5	28.7	94.3	59.4	29.4*,c	40.3	81.0***,c	5.6
Over 40	75.0	67.7	69.7	30.6	91.5	59.1	41.2	46.5	64.7	5.4
Race/ethnicity										
Black	83.6	65.8*,d	68.5	30.1	94.5	65.8	37.0	42.5	72.6	5.4
Hispanic	75.5	56.9***,**,e,g	62.8	29.4	92.8	61.4	37.3	37.9	73.9	5.3
White	80.9	69.0*,f	71.2	28.0	93.5	59.6	30.2	40.0	75.9	5.5
Other	79.1	86.1	72.1	32.6	97.7	53.5	32.6	34.9	86.1	5.8
Education										
HS or less	78.9	59.6**,i	66.9	22.9*,i	85.5***,h,i	54.8	21.1*,***,h,j	31.9**,i	57.8***,h,i	4.8**,***,h,i
Some college	78.8	63.0**,j	65.8*,j	24.9*,j	94.6	59.9	31.4	36.7*,j	75.8	5.3***,j
BA or more	81.6	73.1	73.3	32.4	95.4	61.7	35.1	43.9	81.1	5.8
Married										
Yes	80.1	66.7	68.6*	26.8**	93.6	59.7	31.5	39.2	74.3*	5.4*
No	81.1	72.9	76.5	37.7	93.5	61.8	32.9	42.4	83.5	5.8
Immigrant										
Yes	74.6	57.4*	61.5*	25.4	93.4	61.5	36.9	45.1	77.1	5.3
No	81.0	69.0	70.9	28.9	93.6	59.9	31.1	39.0	75.6	5.5
Rural										
Yes	84.4	59.7*	64.0	21.0*	91.4	56.5	28.0	29.6**	72.6	5.1**
No	79.4	69.4	71.1	30.1	94.1	60.8	32.5	41.8	76.4	5.6
Child \geq 6 years										
Yes	78.7	64.9**	72.5**	29.9	92.6*	56.5**	33.9*	41.4**	70.2***	5.41
No	83.6	73.2	64.7	26.6	96.2	67.1	26.9	36.2	87.1	5.61
Number of children										
One	80.2	72.4*,k	67.3	25.6*,k	95.8	62.8	28.2	39.0	81.7***,k	5.53
Two	82.0	67.6	71.1	27.8	93.3	60.2	31.5	40.9	76.3*,l	5.51
Three or more	78.1	62.4	70.7	34.2	92.3	56.8	35.2	38.3	68.6	5.37

Note. Letters indicate that the difference is significant between the following groups: ^aUnder 30 versus 30s; ^bunder 30 versus 40s; ^c30s versus 40s; ^dBlack versus other; ^eHispanic versus other; ^fWhite versus other; ^gHispanic versus White; ^hHS or less versus some college; ⁱHS or less versus bachelors or more; ^jsome college versus bachelors or more; ^kone child versus three children; ^ltwo children versus three children. Several variable categorizations were based upon their distributions. Given its concentrated distribution, age was categorized as under 30 years, between 30 and 40 years, and over 40 years. Given its upwardly skewed distribution, educational level was coded as high school diploma or less, some college or trade school, and a bachelor's degree or more. Owing to the high percentage of married respondents (85%), the variable was dichotomized as married or not married. Rural respondents lived in counties with less than 100 residents per square mile.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Demographic Differences in Parent Information Sources

Table 2 summarizes the differences among parents on the basis of their demographic characteristics and the type and number of parent

information sources used. Gender, age, and education level were the most distinctive characteristics in terms of the types of sources parents used. Mothers were more likely to use family, friends, teachers, parenting classes,

books/magazines, television, the Internet, and an overall greater number of sources than fathers. Younger parents were more likely to use family members and the Internet, whereas older parents were more likely to use teachers, the radio, or the newspaper. Parents with higher levels of education were more likely to use friends, teachers, classes, books/magazines, the radio, the newspaper, the Internet, and a greater total number of sources than those with fewer years of schooling. Parents with children between 6 and 10 years old were more likely to use school teachers and the radio, whereas parents with younger children were more likely to use friends, books, television, and the Internet. Parents with fewer children were more likely to use the Internet than those with three or more children.

A few notable differences were found if parents were married, immigrants, or rural residents. Married parents were less likely to use teachers, parenting classes, and the Internet than other parents and used a fewer number of sources. Immigrants were less likely to use friends and teachers than U.S.-born parents. Rural residents were less likely to use friends and parenting classes than city residents. In examining racial and ethnic differences, Hispanics were more likely to use friends than Whites. Parents of other races were less likely to use friends than Whites.

Internet Use

Given that the Internet is an emerging resource for parents accessing childrearing information, we investigated the degree to which demographic characteristics were associated with the Internet as a source of parenting information. Table 3 provides the estimated coefficients and relative risks ratios. Like odds ratios, relative risk ratios are calculated as the antilogs (i.e., exponentiated values) of the model coefficients, and their interpretation is similar (Long & Freese, 2006). Results show that, holding child's age and survey mode (telephone vs. mail) constant, many parental demographic characteristics were significantly associated with Internet use for parenting information.

Mothers, younger parents, unmarried parents, and those with higher levels of education were more likely to use the Internet for parenting information than their counterparts. Mothers were 12% more likely (1.12 - 1) to use the

Internet than fathers. Parents under 30 years and those between 30 and 40 years old were more likely (relative risks = 1.13 and 1.19, respectively) to use the Internet than parents over 40 years old. Alternatively, parents with no more than a high school education were 28% less likely (1 - .72) to use the Internet compared with those with at least a bachelor's degree. Married parents were 11% less likely than their unmarried counterparts. Race/ethnicity, nativity, and location of residence did not reach statistical significance in the model. Child age and survey administration mode were also associated with Internet use in that parents with younger children and mail respondents were more likely to use the resource.

DISCUSSION

Given parents' interest in learning about child-rearing and their potential to benefit their children's well-being through awareness of healthy childrearing practices, we investigated parents' use of nonprofessional, professional, and media

Table 3. Summary of Binominal Logistic Regression Analysis for Variables Predicting Internet Use as a Source of Parenting Information for Parents (N = 1,081)

Predictor	β	SE β	RR
Mother	.12**	.04	1.12
Age: Under 30	.13*	.06	1.13
30-40	.17***	.04	1.19
Race/ethnicity: Black	-.10	.07	.91
Hispanic	-.04	.06	.97
Other	.04	.07	1.04
Educational attainment			
High school or less	-.33***	.07	.72
Some college	-.10**	.04	.91
Married	-.11**	.04	.89
Immigrant	-.00	.06	1.00
Rural resident	-.01	.05	.99
Constant	.05		
χ^2		259.95	
df		14	
Percentage of using the Internet		75.8	

Note. Controls are child age and survey mode (omitted from the table). RR = relative risk. Reference categories are father; age = over 40; race/ethnicity = White; educational attainment = bachelor's or more.

* $p < .05$. ** $p < .01$. *** $p < .001$.

resources to gain parenting information, including demographic variations. Informed by the knowledge gap hypothesis and digital divide perspective, we expected educational advantage to be associated with a greater likelihood of resource use. Indeed, we consistently found that higher levels of education were associated with greater resource use. Logistic regression results of Internet use showed, however, that being young and unmarried also increased the likelihood of use, characteristics often associated with increased vulnerability and disadvantage (McLanahan & Sandefur, 1994). Therefore, the Internet may be a useful mechanism to reach parents likely to benefit from parenting information and support.

Multiple Sources of Parenting Information

Most parents gather information from several sources and from a combination of non-professional, professional, and media sources. O'Connor and Madge's (2004) qualitative findings of Babyworld web users support parents' reliance on multiple sources. In their study, parents used several sources, often intentionally combining professional and nonprofessional sources in order to triangulate information to make childrearing decisions.

Our analysis also supports previous studies that illustrate the high prevalence of parents using media to gain parenting information (Ateah, 2003; Fuligni & Brooks-Gunn, 2002; Koepke & Williams, 1989; Shwalb et al., 1995; Young et al., 1998). Parents' use of media sources substantiates several media efforts directed at providing information to parents about raising children. On a national level, for example, The White House Office of National Drug Control Policy invests considerable time and money to reach parents through their antidrug media campaigns (Office of National Drug Control Policy, 2008).

Our analysis also indicates that parents' use of media sources is not dominated by one type of media source. Rather, books, television, and the Internet are used in combination by the vast majority of parents. Parents' use of multiple media outlets corroborates the multiprong strategy of The Partnership for a Drug-Free America (2008) and other campaigns that use multiple mechanisms (e.g., television, newspapers, workplaces, Internet, and videos) to convey parenting messages.

Demographic Differences in Source Usage

Demographic characteristics were related to the use of nonprofessional, professional, and media sources for parenting information. Congruent with previous findings (Fuligni & Brooks-Gunn, 2002; Koepke & Williams, 1989), the knowledge gap hypothesis, and the digital divide perspective, educational attainment was positively related to the use of professional and media sources, including the use of teachers, parenting classes, books, radios, newspapers, and the Internet. Socioeconomic advantage was not synonymous with a greater likelihood of using each source, however. Single mothers, traditionally associated with disadvantage (McLanahan & Sandefur, 1994), were more likely to use school teachers, parenting classes, and the Internet for parenting information than their married counterparts.

Access to parenting resources may help to explain why resource use is not entirely class based. Single mothers may turn to parenting classes because providers, such as HeadStart, target single parents' because of their children's potential vulnerability (e.g., Asscher, Hermanns, & Dekovic, 2008). Our inclusion of residence population density and nativity also suggest resource access may differ in rural areas and among immigrant parents. Rural parents were less likely to use sources that are less available in low-population areas (e.g., parenting classes) than urban parents. Immigrant parents were less likely to use teachers than U.S.-born parents, possibly indicative of language barriers. Further research is required to disentangle how parental access to various resources influence usage patterns.

Demographic differences go beyond those associated with advantage or access. Mothers used more sources than fathers and there are likely several explanations for women's higher use. It may be that mothers have lower confidence levels, are more willing to seek help, or require more information because of their primary care responsibilities. Shwalb et al. (1995) found that mothers have lower levels of confidence in their parenting skills than fathers. Approximately 43% of Japanese mothers with preschoolers reported that they were not very confident or not at all confident in childrearing compared with only 15% of Japanese fathers. Mothers may be more willing to seek help and to triangulate information from multiple sources

than fathers (O'Connor & Madge, 2004). Alternatively, given that mothers are more likely to be primary caregivers than fathers, they may have greater opportunity and interest to seek out information. Likewise, mothers may require more information in order to meet their children's needs or adhere to gender role expectations. Congruent with previous work (Fuligni & Brooks-Gunn, 2002), parents' use of resources also varied with their age because younger parents were more likely to use family members than older parents. Age-based differences in the use of media sources may be associated with familiarity and comfort level. Following the pattern among the general population of Internet users (Jones & Fox, 2009), younger parents were more likely to use the Internet, whereas older parents were more likely to use traditional sources including teachers, radios, and newspapers.

The Internet as a Source for Parenting Information

Over 75% of respondents reported using the Internet as a source for parenting information. This finding is similar to Allen and Rainie's (2002) findings with regard to Internet use among parents. We also found that several parent characteristics (i.e., gender, age, education level, and marital status) were related to whether parents used the Internet for parenting information. Mothers were more likely to use it than fathers, which is similar to Fox and Rainie's (2000) findings that females use the Internet for health concerns more than males. Also congruent with current literature (Allen & Rainie, 2002; Kind et al., 2005), younger parents were more likely to use the Internet than parents over 40 years. Internet use among younger parents provides a unique opportunity to tailor information to young parents.

Does the digital divide in the general population apply to the subpopulation of parents? The answer is both yes and no. Following the digital divide, parents with a high school diploma or less and those with only some college were less likely to use the Internet compared with parents with a bachelor's degree or more. Previous studies, however, have also shown that married parents have higher rates of Internet use than single parents (e.g., Allen & Rainie, 2002). In our study, married parents had a lower likelihood of using the Internet compared with single parents. This finding coincides with

Sarkadi and Bremberg's (2005) study, which found that single parents were more likely to go to the Internet for parenting support and information than their married counterparts. Perhaps fewer married parents turn to the Internet for parenting information than single parents because they turn to their spouse instead. Future studies can help to explain the rationale behind demographic differences in using the Internet for parenting information.

Limitations

Although this study provides additional insight into resources parents use to receive information about parenting and patterns of use on the basis of demographic characteristics, it has several limitations. First, the sample has selection bias. Compared with Census data in the surveyed areas, respondents had higher levels of education and were less likely to be single parents. White respondents were overrepresented, whereas Blacks were underrepresented. The variability on key demographic parameters was limited—possibly weakening our ability to detect differences or possibly allowing us to detect differences that do not exist in the general population. Our finding that single parents were more likely to use the Internet than married parents, for example, may be an artifact of our sample. In addition, although acceptable (cf. Dillman, 2007), the response rate was rather low at 18%. Therefore, we cannot assume that responses are representative of parents from the sampled areas. Second, the study relies on self-reported data. We cannot eliminate the possibility that parents reported using more, less, or different sources that they actually used because of social desirability bias. Telephone and mail respondents did not differ significantly in their reported number of parenting resources, which suggests that mode of survey delivery was not associated with volume of sources; however, responses from both survey modes could be inflated because the instrument did not contain a social desirability scale. Third, the instrument's nine-item list of potential resources is not exhaustive. Although parents could specify additional sources and no additional source was mentioned by more than four respondents, other sources (i.e., pediatricians and pastors) could serve as important childrearing resources. Similarly, the list of demographic characteristics is not exhaustive. Additional characteristics such

as the reference child's birth order or the parent's employment status could be related to parents' use of childrearing resources. The inclusion of additional sources and additional demographic predictors is important for future research. Likewise, examining each source in a multivariate context in order to consider the net effect of each predictor controlling for child age as we did for Internet use is important because child age is likely to affect the sources which parents seek out to gain parenting information.

Although this study provides insight with regard to the use of various parenting resources, several questions remain. For instance, what is the quality of the source in terms of accuracy of the information garnered? More important, what is the differential impact of each source on parenting practices? We did not ascertain at what point in time parents used particular sources, how often they used them, the information parents obtained, and the implications of the information on their parenting practices. These factors are important to consider in providing meaningful parenting messages and should be explored in future research. In addition, a latent class analysis could delineate characteristics of parents who utilize each resource and assist professionals and campaigns in tailoring medium-specific messages.

Implications

Our findings suggest three implications for providing parents with childrearing information. First, parents use multiple types of nonprofessional, professional, and media-based sources for parenting information, and these sources appear to be well positioned to deliver information because of their popularity among parents. No two sources are highly correlated, perhaps suggesting that each source reaches a unique audience and addresses certain needs for different groups of parents. These results support a community awareness campaign that uses an integrative, coordinated communications strategy in order to reach a diverse population of parents. For example, the Back-to-Sleep campaign spreads its messages through brochures, posters, print and television advertisements, and a website (Cotroneo, Hazel, & Chapman, 2001).

Second, understanding demographic differences among parents with regard to which resources they use for parenting information will help to make messages relevant to particular

users as well as inform planning for innovative message campaigns to attract underreached parent groups. For example, the VERB campaign to increase physical activity among children used different mediums to reach ethnically diverse parents including in-language television messages for Hispanic and Asian American parents and radio advertisements for African American and American Indian parents (Price, Huhman, & Potter, 2008). Although our findings do not demonstrate a need for ethnic-specific mediums, in tailoring messages to single parents, our findings indicate that parenting classes and websites can focus on their unique needs. Also, the dissemination of parenting information should be expanded to reach those currently underaccessed, such as parents living in rural areas and fathers. Rural parents were less likely to attend parenting classes relative to those living in urban areas. Fathers were less likely to use most sources including teachers, parenting classes, and television relative to mothers. Additional efforts to offer and attract rural parents and fathers to support groups or classes can benefit underreached parents. Using mediums to target parenting messages at fathers, such as public service television announcements during broadcasts drawing male-dominated audiences, also can be beneficial.

Third, the wide use of the Internet may be an effective vehicle to reach diverse parent groups. Although some evidence suggests a digital divide in that parents with higher levels of education report higher rates of use, our analysis indicates that the Internet is broad-reaching, particularly to vulnerable groups such as young and single parents. Family practitioners can use the Internet to reach parents in innovative ways such as leading chat groups or checking parents' progress in trying new parenting practices. If parents' schedules or transportation problems do not permit meeting in traditional face-to-face formats, family practitioners can set up virtual chat rooms where parents can meet virtually at a designated time for progress check-ups and parenting feedback. In addition, given our finding that Internet use for parenting information is particularly prevalent among single parents, a group with less Internet experience (Allen & Rainie, 2002), practitioners can teach parents about the ways to search the Internet effectively for parenting information and ways to judge websites' trustworthiness (e.g., using reliable search engines, using

appropriate key words, and considering the source, author, and rationale of information). Parents can benefit from understanding that not all childrearing information provided on the Internet is accurate or legitimate. The promotion of accurate, legitimate websites is important, especially given the digital divide among the online population of parents where parents of higher SES appear to possess more sophisticated search skills and are more selective in trusting websites (Rothbaum et al., 2008).

Conclusion

This study contributes to the knowledge of resources parents use to learn about childrearing by delimitating among several nonprofessional, professional, and media sources, among a random sample of parents and examining demographic differences in resource use, with particular emphasis on the Internet. Indeed, users of each source differ demographically; however, differences are not always class based. Although education level was positively related to almost every source, younger and single parents were more likely to use the Internet than their older, married counterparts. Professionals seeking to reach parents can benefit from understanding resources that parents use to learn about childrearing. Information can then be packaged appropriately through multiple mediums to reach diverse groups of parents.

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