



# Educating Parents About Corporal Punishment and Effective Discipline: Pediatricians' Preparedness, Motivation, and Barriers

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## ABSTRACT

**OBJECTIVE:** To assess US pediatricians' preparedness, motivation, and barriers related to educating parents about corporal punishment (CP) and effective child discipline.

**METHODS:** A random sample of 1500 pediatricians was drawn from a nationwide database in the United States. A self-administered questionnaire was sent via mail in 2016. The response rate (53%; n = 787) was maximized via repeated survey mailings and use of cash incentives.

**RESULTS:** The majority of respondents were White (69%), female (59%) and were members of the American Academy of Pediatrics (85%). Most pediatricians felt somewhat prepared to advise parents about child discipline, particularly CP, and perceived their colleagues to be slightly less prepared than themselves. Although most (72%) respondents believed it was "extremely/very" likely that parents valued their advice about child discipline, only 36% believed parents were "extremely/very" likely to follow their advice. Most respondents were highly motivated to participate in activities designed to change

norms regarding CP. The most common strategy pediatricians identified for improving child behavior was being consistent with rules (71%). Perceived barriers to providing child discipline advice to parents included lack of time (90%), lack of insurance reimbursement (48%), and lack of training and educational resources (47%).

**CONCLUSIONS:** Pediatricians are a key source of professional advice for parents about how to discipline children safely. Given this, along with strong approval and use of CP in the United States and its harm for children, the current findings suggest a strong need for pediatricians to receive additional training on how to advise parents about child discipline along with removal of barriers to providing such advice.

**KEYWORDS:** child discipline; child physical abuse; corporal punishment; norms; preparedness

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## WHAT'S NEW

The current study assesses pediatricians' training gaps and barriers to providing parents with advice regarding child discipline. Results inform development of effective training interventions for pediatricians to engage with parents.

A LARGE BODY of empirical evidence has emerged regarding the harms of corporal punishment (CP) including risk for child physical abuse, effects on brain development, mental and emotional health problems in childhood,<sup>1</sup> and mental and physical health problems in adulthood.<sup>2–5</sup> CP, also known as physical discipline or punishment, and spanking, among other terms, is used to correct or punish a child's behavior and includes the use of physical force intended to cause pain or discomfort to the child without injury.<sup>6</sup> The effects of CP on mental

health problems are on the same scale as other adverse childhood experiences including physical and emotional abuse.<sup>2</sup> Despite substantial evidence indicating the harmful effects of CP, there is still widespread approval of CP in the United States with approximately 71% of adults agreeing that CP use is sometimes necessary to discipline a child.<sup>7</sup> Further, although there has been a decline in the use of CP nationally and rates vary regionally, more than 60% of parents report using CP with their children by the time they have turned 5 years of age.<sup>8,9</sup> The harmful effects of CP, combined with its widespread approval and use, highlight CP as an important public health issue to address. Therefore, potential avenues for interventions to shift norms regarding CP use are needed.

The Theory of Planned Behavior posits that perceived norms of influential groups regarding a behavior are strong predictors for attitudes toward and use of the behavior.<sup>10</sup> For example, parental attitudes toward CP and

use of CP are directly linked to their perceived norms regarding CP of family, friends, neighbors, and family service providers.<sup>11–13</sup> Specifically, perceived approval of CP by pediatricians is a strong predictor for parental attitudes supportive of CP.<sup>14</sup> Pediatricians have also been identified by parents as an extremely credible and influential source of advice regarding parenting and child discipline.<sup>15,16</sup>

Recent findings from a representative sample of US pediatricians demonstrated that the majority of pediatricians (79%) disapprove of CP use and believe that it is harmful for children.<sup>17</sup> However, pediatricians perceived their colleagues as having slightly more positive attitudes toward CP compared to their own attitudes. Further, over 75% of pediatricians identified no positive expected outcomes of CP use and instead identified several negative expected outcomes.<sup>17</sup> Compared to earlier studies of medical professionals' attitudes regarding CP use, this study reflects a meaningful trend toward less approval and support of CP use.<sup>18–20</sup> Additionally, the release of a policy statement in 2018 by the American Academy of Pediatrics (AAP) strongly condemning CP use,<sup>21</sup> and release of training resources for pediatricians to engage with parents regarding CP use,<sup>22</sup> have potentially influenced pediatricians' approval ratings and support of CP since their emergence.

While pediatricians serve as a promising entry point for shifting parental norms regarding CP, there is a need to examine the specific training gaps and barriers for pediatricians to more effectively provide advice regarding child discipline to parents. Further, it would be useful to understand pediatricians' motivation to help change norms regarding CP among their colleagues and with parents. The current study is designed to examine US pediatricians': 1) preparedness for and perceived value of addressing child discipline with parents, 2) perceptions of their colleagues' preparedness for addressing child discipline with parents, 3) motivations to change norms regarding CP with parents and colleagues, 4) beliefs about various discipline strategies, and 5) perceived barriers to educating parents about safe child discipline. Examining these key variables will allow for development of targeted training interventions to provide pediatricians with the additional skills and tools needed to effectively advise parents about child discipline.

## METHODS

### STUDY PROCEDURE

A national database of US physicians purchased from SK&A Information (now IQVIA) was utilized to draw a random sample of pediatricians for the current study. The inclusion criteria for the sample frame included physicians who: 1) indicated pediatrics as their primary specialty, 2) currently practiced in the United States, and 3) had a valid mailing address. In February 2016, a random sample of 1500 records was pulled from pediatricians in the sampling frame (N = 33,476). The University of Wisconsin Survey Center acquired the sample and directed mailings of surveys and data collection.

Surveys were mailed from March to May of 2016, with data collection finalized on June 2016. The University of Wisconsin Survey Center conducted 4 mailings to maximize survey response rates: 1) a full mailing (including a cover letter, a questionnaire, a cash incentive, and a business reply envelope) to all 1500 participants, 2) a postcard reminder sent 1 week later (N = 1500), 3) a full mailing at 1 month (N = 947), and 4) a final full mailing 7 weeks (N = 757) later to participants who had not responded. Instructions providing a description of the survey, the voluntary and confidential nature of the survey, and how to return responses were included in the full mailings.

The current study was approved by Tulane University's Institutional Review Board. Participants received anywhere from \$5 to \$20 in incentives across 2 survey mailings, for total of \$17,530 in incentive costs. (Note: findings from the incentive level experiment are reported elsewhere.)<sup>23</sup> All responses remained anonymous. No personally identifying information was collected. In total, 787 respondents completed the survey yielding a response rate of 53%. The response rate is similar to the average rate of 50% reported in a meta-analysis of health care professional surveys.<sup>24</sup>

### MEASURES

Instructions were given to participants asking them to respond to questions as follows: "Please rate the following statements with regard to advising parents about using discipline that does not involve spanking or hitting a child with a hand or an object." All answers were scored on a 5-point Likert scale ranging from 1 = not at all, 2 = a little, 3 = somewhat/moderately, 4 = very, to 5 = extremely, then averaged so that final scores ranged from 1 to 5.

#### *PREPAREDNESS FOR AND VALUE OF ADVISING PARENTS ABOUT CHILD DISCIPLINE*

*Professional preparedness* beliefs included: 1) How strongly do you believe that this is part of your job? 2) How well-trained do you feel you were to provide such advice? 3) How confident do you feel about your ability to provide such advice? and 4) How supported do you feel in your workplace to provide such advice? *Perceived value* beliefs included: 1) Do you give a high priority to providing such advice? 2) How highly do you think parents value such advice when you provide it? and 3) How likely do you think parents are to follow such advice when you provide it?

#### *PERCEIVED PROFESSIONAL NORMS OF PREPAREDNESS ABOUT ADVISING PARENTS ABOUT CHILD DISCIPLINE*

Respondents were asked 4 questions regarding their perceived professional environment on this topic: 1) How well-trained do you think most people in your profession are to provide advice about using discipline that does not involve spanking or hitting a child with a hand or an object? 2) How confident do you think most people in your profession are to provide advice about using discipline that does not involve spanking or hitting a child with a hand or an object? 3) Was learning how to prevent

child physical abuse before it occurs emphasized in your professional training or education? As a point of comparison, we also asked, "Was learning how to respond to child physical abuse cases after they occur emphasized in your professional training or education?"

#### *MOTIVATION TO CHANGE NORMS REGARDING CORPORAL PUNISHMENT OF CHILDREN*

Respondents were asked their level of motivation to participate in 7 items: 1) Learn more about research findings on the effects of spanking on children, 2) Talk to parents about using discipline techniques that do not involve spanking, 3) Challenge parents' viewpoints that support the use of spanking, 4) Challenge colleagues' viewpoints that support the use of spanking, 5) Work with your employer to change policies related to the use of spanking (eg, no hit zones), 6) Discuss with your colleagues discipline techniques that do not involve spanking, and 7) Learn about ways you can best intervene with parents when they spank children in your presence.

#### *BELIEFS ABOUT ALTERNATIVE CHILD DISCIPLINE STRATEGIES*

Participants were asked: "How effective are the following disciplinary strategies at improving a child's behavior, assuming age-appropriate application?" regarding 15 child discipline strategies. The 15 items included: 1) being consistent with rules, 2) praising, 3) applying awareness of a child's developmental capabilities, 4) redirection, 5) rewards for good behavior, 6) setting future expectations, 7) time out, 8) removing privileges, 9) explanation of rules, 10) warning, 11) grounding of adolescents, 12) shaming, 13) yelling, 14) spanking, and 15) assigning chores as punishment.

#### **STATISTICAL ANALYSIS**

All analyses were conducted using STATA 15 (StataCorp LLC, College Station, Tex). Summary and descriptive statistics, including frequency distributions, means, and standard deviations (SDs), were conducted. Bivariate analysis including a correlation matrix to assess collinearity among the main variables of interest. Multivariable linear regression analyses were conducted to determine the association between preparedness and perceived professional norms of preparedness about advising parents about child discipline, and motivations to change norms regarding CP and key respondent characteristics. In linear regression, the unstandardized beta coefficient (B) is the degree of change in the outcome variable for every 1-unit change in the predictor variable. The standard error (SE B) is similar to the SD for a mean, with a larger number indicating greater spread of points from the regression line. The standardized beta coefficient ( $\beta$ ) ranges from  $-1$  to  $0$  or  $0$  to  $1$  depending on the direction of the relationship between the outcome and predictor, with a value closer to  $-1$  or  $1$  indicating a stronger relationship. A  $P$  value  $<.05$  was used to define statistically significant associations.

**Table 1.** Respondent Characteristics (n = 787)

	n	%
Gender		
Female	465	59.1
Male	315	40.0
Race		
White	545	69.3
Black	27	3.4
Asian	117	14.9
Hispanic-identified	51	6.5
Other	33	4.2
Region of United States		
Northeast	245	31.1
Midwest	120	15.2
West	184	23.4
South	222	28.2
Years of experience		
<15 years	259	32.9
15–24 years	223	28.3
25+ years	298	37.8
Spanked as child		
Never	144	18.3
Rarely	355	45.1
Sometimes	220	28.0
Often	54	6.9
Type of practice		
Private practice	437	55.5
Community-based practice	209	26.6
Hospital	91	11.6
Other	43	5.5
Type of pediatrician		
Primary care	738	93.8
Specialist	42	5.3
Area of pediatrics		
General pediatrics	724	92.0
Other	56	8.0
Member of AAP		
Yes	665	85.0
No	107	13.6
Largest age group of children seen		
<6 years old	764	97.1
>6 years old	6	0.7

	Mean (SD)	Range
Age	51.93 (11.3)	29–84
Avg. number of kids seen weekly	86 (46.2)	0–500
Avg. number of wellness visits weekly	37.4 (35.5)	

AAP indicates American Academy of Pediatrics; SD, standard deviation.

Not all percents for each variable add up to 100% due to missing values, which never exceeded 2% for any one variable.

## **RESULTS**

Respondent characteristics are presented in Table 1. All survey respondents were pediatricians, and the majority were members of the AAP (85.0%). All regions of the United States were represented including the Northeast (31.0%), the South (28.0%), the West (23.4%), and the Midwest (15.3%). Racial and ethnic demographics included White (69.3%), Asian (14.9%), Hispanic/White (6.5%), Black (3.4%), and other (4.2%). Most respondents were female (59.1%) with an average age of 51 years (SD = 11.3; range 19–84). Most participants had 15 years or more of experience (66.2%) and 12% had completed a

**Table 2.** Descriptive Statistics of Measures Assessing Preparedness, Norms, and Motivation (N = 787)

Measures	n	Alpha	Mean	SD
1. Prepared to advise parents about child discipline	783	0.70	3.19	0.65
2. Value in advising parents about child discipline	782	0.70	3.59	0.58
3. Perceived professional norms of preparedness about advising parents about child discipline	784	0.73	2.85	0.64
4. Motivation to participate in activities designed to change norms regarding the use of corporal punishment	783	0.83	3.60	0.75

SD indicates standard deviation.

Means are on a scale of: 1 = not at all, 2 = a little, 3 = somewhat/moderately, 4 = very, and 5 = extremely; Cronbach's alpha coefficients were given as a measure of internal consistency and scale reliability, an alpha above 0.65 is considered good reliability.

postresidency program. The majority identified as primary care clinicians (93.8%) as compared to specialists (5.3%). Most identified as general pediatricians (92%) as compared to family practice, internal medicine/pediatrics, or another field. Participants reported seeing an average of 86 children during a typical week, with a mean number of 37.4 child wellness visits per week. Most (97.1%) reported that the largest portion of children seen in their practice were children less than 6 years of age. Finally, less than half responded they were "rarely" spanked or hit for discipline (45.1%). The rest reported being "sometimes" (28.0%), "never" (18.3%), or "often" hit (6.9%).

Mean scores for participants' preparedness and perceived preparedness of colleagues to advise parents about child discipline, value placed in advising parents, and motivation to participate in activities designed to shift norms regarding CP are presented in Table 2. Overall, participants felt somewhat prepared to advise parents about how best to discipline their children (mean 3.19; SD 0.65) and perceived their colleagues to be slightly less prepared than them (mean 2.85; SD 0.64). Participants did place high value in advising parents by reporting they very much agree that there is value in providing advice on child discipline to parents (mean 3.59; SD 0.58). Respondents also reporting being

very motivated (mean 3.60; SD 0.75) to participate in activities designed to change norms regarding CP including learning about research findings, talking to parents and colleagues about using techniques not involving CP, and challenging parents' and colleagues' viewpoint that support CP.

Study participants varied in how prepared they felt and how they perceived their colleagues felt in advising parents about child discipline (Table 3). Most participants (74%) reported they felt "extremely" or "very" strongly that advising parents about child discipline was a part of their job. Further, most (68%) felt "extremely" or "very" confident in their ability to provide advice to parents about child discipline. However, less (49%) felt "very" or "extremely" supported by their workplace to provide such advice. Additionally, most (81%) said they either felt "a little/not at all" (40%) or "somewhat/moderately" (41%) well-trained during residency on how to provide such advice; even fewer felt well-trained on this topic in medical school. Regarding perceived profession-wide norms of preparedness in providing parents with advice, the majority felt that most people in their profession were only "somewhat or moderately" confident to provide such advice (61%) and only "somewhat or moderately" well-trained (51%).

**Table 3.** Beliefs About Preparedness, Norms, and Value of Advising Parents About Child Discipline (N = 787)

	A Little/Not at All %	Somewhat/ Moderately %	Very %	Extremely %
Professional preparedness to provide such counsel				
Believe it is a part of their job	4.5	21.1	49.2	24.4
Feel confident in ability	3.8	27.6	49.7	18.3
Feel supported in professional practice	15.6	33.5	38.1	10.4
Felt well-trained in residency program	40.1	41.3	16.0	1.5
Felt well-trained in medical school	62.5	30.2	5.6	1.1
Value in advising				
Believe parents value advice	2.8	24.5	55.1	16.9
Believe parents follow advice	7.1	56.4	33.2	2.4
Priority to giving advice	7.9	34.3	47.0	9.8
Professional preparedness norms				
Feel other professionals confident in ability	20.5	60.5	17.5	1.1
Feel other professionals well-trained	36.4	51.1	11.8	0.5
How motivated are you to participate in each of the following				
Talk to parents about using effective discipline strategies	3.8	17.8	56.2	22.0
Learn more about research findings on effective discipline strategies	10.2	24.3	50.7	14.6
Learn more about research findings on harmful discipline strategies	11.5	26.0	48.0	14.1
Challenge parents that use harmful and/or ineffective discipline strategies	11.4	29.5	43.3	15.2
Challenge colleagues that support the use of harmful and/or ineffective discipline strategies	24.7	32.5	27.1	14.5



Although most (72%) respondents believed it was "extremely" or "very" likely that parents valued their advice about child discipline, only 57% were "extremely" or "very" likely to prioritize giving such counsel to parents and just over one third (36%) believed parents were "extremely" or "very" likely to follow their advice. However, most respondents were highly motivated to participate in activities designed to change norms regarding CP. Most were "extremely" or "very" motivated to talk to parents about using effective discipline strategies (78%) and learn more about research findings on effective discipline strategies (65%). Respondents were least enthusiastic about challenging their colleagues that support the use of harmful and/or ineffective discipline strategies (42%).

Some of the main constructs we examined were highly correlated. Preparedness to advise parents about child discipline was strongly positively correlated with value of advising parents about child discipline ( $r = 0.67$ ) and perceived professional norms of preparedness to advise parents about child discipline ( $r = 0.52$ ). Perceived professional norms of preparedness to advise parents about child discipline was positively correlated with value of advising parents about child discipline ( $r = 0.50$ ).

Multivariable regressions highlight how respondents varied in their perceptions of preparedness, professional preparedness norms, and value of advising parents about child discipline, as well as in their level of motivation for changing relevant norms (Table 4). However, only one characteristic was important across all 4 of these constructs: how often the respondent had been spanked as a child. Those who had been hit "often" as a child, compared to all who had been hit less or not at all, felt more prepared and felt there was greater value in advising parents about how best to discipline their children. Interestingly, those who never experienced CP in childhood were less motivated to change CP-related norms when compared to those who had experienced CP.

There was no other characteristic that mattered across all 4 constructs. Gender mattered only for personal preparedness to advise with women reporting being more prepared than men. Race mattered only for perceived personal and collegial preparedness norms: Asian respondents felt less prepared than all others, and White respondents perceived greater preparedness among colleagues than all others. Of all regions in the United States, respondents in the South were least likely to value advising parents about CP and least motivated to change norms regarding CP. Finally, respondents with 15 years or more of professional experience felt there was more value in providing such advice to parents compared to those with less experience.

Participants were asked to rate how effective various disciplinary strategies are at improving a child's behavior, assuming age-appropriate application (Figure). Of the 15 strategies named, a majority rated 11 of them as "somewhat" to "extremely" effective. Respondents identified the most effective strategies as being consistent with rules, praising good behavior, applying awareness of a child's developmental capabilities, redirection, and

rewards for good behavior. Conversely, a majority rated the remaining 4 strategies, including shaming, yelling, spanking, and assigning chores as punishment, as only a little or not at all effective.

Lack of time was identified as the most frequent barrier (89.7%) to educating parents about child discipline. The other barriers ranked as follows: 1) lack of reimbursement for counseling parents on this topic (48.0%), 2) lack of training about how to best counsel parents (46.6%), 3) concerns about cultural sensitivity (44.0%), 4) lack of employer resources (43.5%), 5) lack of knowledge about how to best counsel parents (31.5%), 6) lack of confidence about how to best counsel parents (29.0%), 7) lack of evidence that counseling parents about discipline is effective (22.7%), 8) discomfort with the topic (18.7%), and 9) belief that this issue is not a priority for your time with parents (14%). Respondents were also given the option to name additional barriers though only 9.8% did and no other common barrier emerged. When asked what might help to reduce or remove the barriers, 28% provided suggestions. One common theme to emerge was the potential for developing parenting education training for pediatricians in medical school and residency programs including "improve[ment of] developmental/parenting education in family medicine and pediatric training programs" and "more training and education on how to approach and give the parents the necessary training on discipline they need." Additionally, educational materials for parents regarding child discipline were suggested to assist pediatricians including "learning videos that can be watched by families in the office that pertain to effective discipline & positive parenting," "websites to direct parents to," and "concise handouts for parents with appropriate strategies at various ages." Finally, improved reimbursement by insurance companies for time spent with families discussing child discipline was highlighted as needing change including "better reimbursement for behavior consults to allow for more consistent follow up."

## DISCUSSION

Results of the current study offer an important supplement to our understanding of pediatrician's attitudes and perceived injunctive norms about parents' use of CP with examination of specific constructs not previously studied. Although pediatricians saw the value in providing advice to parents regarding child discipline, they only felt somewhat prepared to advise parents about how best to discipline their children and perceived colleagues to be slightly less prepared, a common finding in pediatrician self-assessments.<sup>25</sup> These findings indicate a need to focus on additional training for all pediatricians on how to most effectively engage with parents regarding healthy child discipline. Brief interventions designed to train pediatricians to counsel parents regarding child discipline have shown great promise in improving pediatricians' self-efficacy to advise parents, their promotion of alternative child discipline strategies with parents, and increased communication between pediatricians and parents regarding child discipline.<sup>26–29</sup>

**Table 4.** Preparedness and Perceived Professional Norms of Preparedness About Advising Parents About Child Discipline, and Motivations to Change Norms Regarding Corporal Punishment (CP) Regressed on Demographic Characteristics and History of Being Spanked

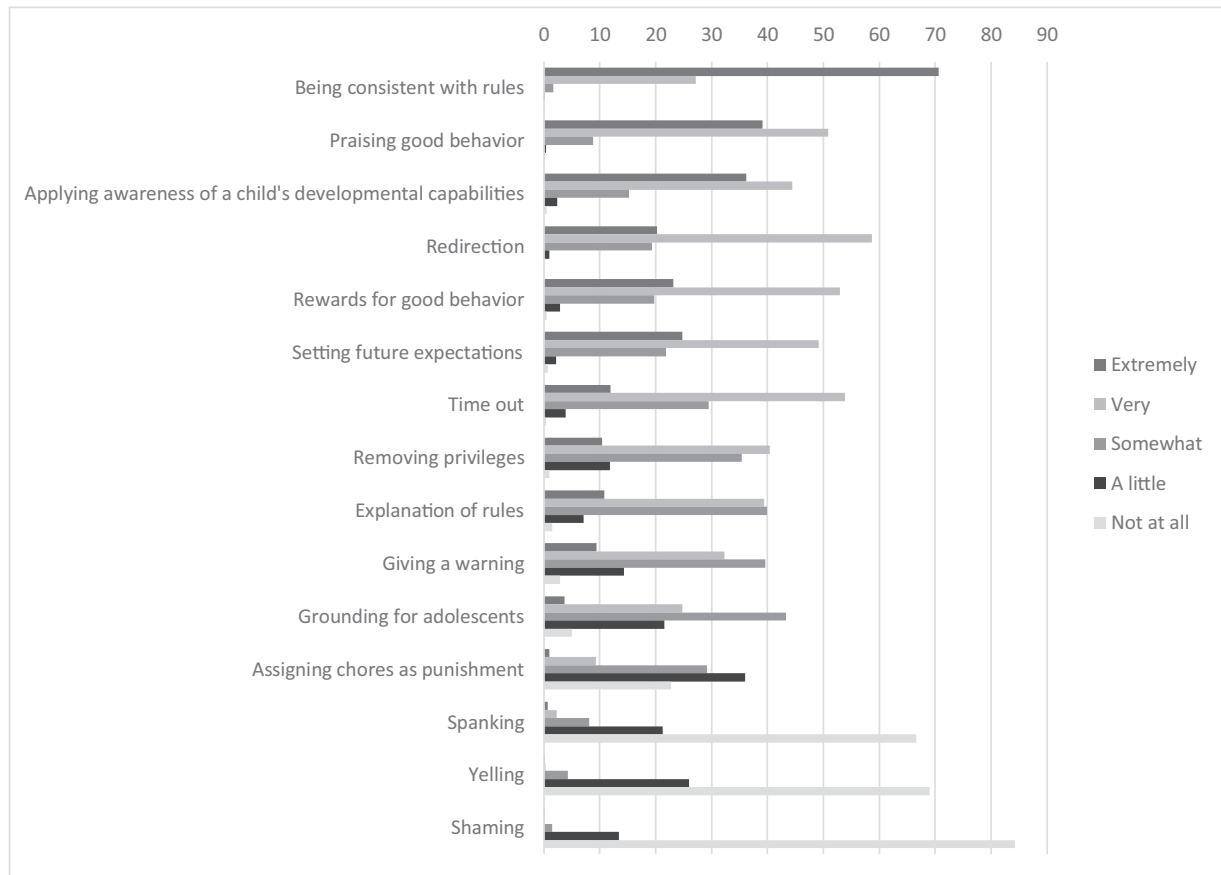
	Preparedness to Advise Parents About Child Discipline			Professional Preparedness Norms About Advising Parents About Child Discipline			Value of Advising Parents About Child Discipline			Motivation to Participate in Activities to Change Norms Regarding the Use of CP		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
Gender (ref = female)												
Male	−0.11	0.05	−0.08*	−0.06	0.05	−0.04	−0.04	0.04	−0.03	0.03	0.06	0.02
Race (ref = White)												
Black	−0.19	0.13	−0.05	−0.43	0.13	−0.12**	0.09	0.11	0.03	0.16	0.15	0.04
Asian	−0.26	0.07	−0.14***	−0.26	0.07	−0.15***	−0.09	0.06	−0.05	0.14	0.08	0.07
Hispanic	−0.02	0.10	−0.01	−0.20	0.10	−0.08*	0.13	0.09	0.05	0.15	0.12	0.05
Other	−0.02	0.12	−0.01	−0.16	0.12	−0.05	0.10	0.11	0.04	0.25	0.14	0.06
Region of United States (ref = Northeast)												
Midwest	0.05	0.07	0.03	−0.07	0.07	−0.04	−0.02	0.07	−0.01	−0.02	0.09	−0.01
West	0.07	0.06	0.05	0.02	0.06	0.01	−0.03	0.06	−0.02	<0.00	0.07	<0.00
South	0.04	0.06	0.04	0.01	0.06	0.01	−0.13	0.06	−0.11*	<0.00	0.07	−0.13**
Years of experience (ref = <14 years)												
15–24 years	0.08	0.06	0.06	−0.04	0.06	−0.03	0.14	0.05	0.11**	0.06	0.07	0.04
25+ years	0.06	0.06	0.05	−0.04	0.06	−0.03	0.16	0.05	0.14**	0.13	0.07	0.08
Spanked as child (ref = rarely)												
Never	−0.12	0.06	−0.07	−0.06	0.06	−0.04	−0.07	0.06	−0.05	−0.20	0.08	−0.10**
Sometimes	0.06	0.06	−0.15***	−0.11	−0.11	−0.08*	−0.03	0.05	−0.02	−0.09	0.07	−0.05
Often	0.22	0.10	0.09*	0.09	0.09	0.03	0.20	0.09	0.09*	0.06	0.11	0.02

B is the unstandardized beta coefficient, which is the degree of change in the outcome variable for every 1-unit change in the predictor variable; SE B is the standard error for the unstandardized beta, which is similar to the standard deviation for a mean;  $\beta$  is the standardized beta coefficient, which ranges from −1 to 0 or 0 to 1 depending on the direction of the relationship between the outcome and predictor, with a value closer to −1 or 1 indicating a stronger relationship.

\* $P < .05$ .

\*\* $P < .01$ .

\*\*\* $P < .001$ .



**Figure.** Responses to “How effective overall are the following disciplinary strategies at improving a child’s behavior, assuming age-appropriate application?” (N = 787).

Despite lack of training, pediatricians indicated having knowledge about effective discipline strategies that are not harmful to children, as well as clearly recognizing ineffective strategies. Further, pediatricians were very motivated to participate in activities designed to change norms regarding CP. Participants were especially motivated to talk to parents about using effective discipline strategies, learn more about research findings on effective discipline strategies, and learn more about research findings on harmful discipline strategies. Given that pediatricians are a trusted and influential source of advice for parents,<sup>14–16</sup> a unique opportunity exists to engage pediatricians in learning more about research regarding child discipline and how to effectively engage with parents regarding use of CP and more effective strategies. Pediatricians often have regular contact with families to provide information and discuss common challenges with child behavior. Such information on the harms of CP and how to implement more effective discipline strategies could be provided in short well-visits over time, with opportunity for parents to follow-up with questions or concerns. Respondents were least enthusiastic about challenging their colleagues that support the use of harmful and/or ineffective discipline strategies (42%). Incorporation of training into residency training programs is needed to shift overall attitudes regarding forms of harmful discipline among pediatricians and to increase capacity among pediatricians to engage with colleagues about the harms

of CP. Additionally, policy statements and resources released through organizations relevant for most pediatricians, like the AAP, may be an effective way to educate pediatricians and shift norms regarding providing parents advice on child discipline.<sup>21,22</sup>

Pediatricians identified several barriers to advising parents on child discipline that are likely to stand in their way of effectively sharing this knowledge with parents. Time was considered the greatest barrier. Development and distribution of educational materials on age-appropriate discipline strategies for pediatric clinics and hospitals to provide to parents could reduce the burden of additional time expected for pediatricians to address discipline with parents. For example, short video interventions provided for parents in a clinical setting have been shown to reduce attitudes supportive of CP use and help parents change how they discipline their children.<sup>30–33</sup> Such brief interventions are one potential method for reducing the additional time burden placed on pediatricians to engage with families around child discipline; they could be administered electronically in waiting or examination rooms before the well visit with pediatricians.<sup>21</sup> Additionally, the identification of unsupportive workplaces as a barrier to engaging with families highlights the need to start with educating clinic administrators about the importance of addressing this topic and how to best support pediatricians in this endeavor. The last major barrier, lack of reimbursement for counseling on this topic, is more challenging to

address but no less important. Addressing time, along with the related issue of reimbursement, will likely require a combination of policy changes and research. AAP policy currently recommends that providers educate parents about discipline,<sup>21</sup> but reimbursement policies are not adequate to incentivize all pediatricians to provide this important educational service. Some parents will require more educational support than others. Efforts should focus on testing brief parenting assessment tools to help pediatricians identify at-risk children and adjust their time and resources accordingly.<sup>34,35</sup> Because only 1 parent may be present for office visits, parenting assessment tools could assess the discipline behaviors of other caregivers and providers could encourage parents to share evidence-based resources with other family members.<sup>35</sup>

There are limitations to this study. This is the first study to assess many of these specific constructs and our measures have not been previously tested, so further studies are needed to replicate these findings. Additionally, despite the similar response rate to other professional surveys, there is the possibility that nonrespondents differed from those who responded to the survey and so there may be a lack of generalizability of results to all primary care pediatricians in the United States. The current study sample, however, is very similar demographically to the 2016 AAP membership (64% female and 73% White).<sup>36</sup>

With the release of the policy statement by the AAP on CP use,<sup>21</sup> the timing is especially suitable for implementing further steps for training pediatricians in how to best counsel parents about child discipline. The current study provides insight into the educational training needs for pediatricians to understand harmful discipline strategies, more effective discipline strategies, and how to engage families regarding child discipline. It is important to implement training given that most physicians report witnessing parental CP use at some point in a medical setting<sup>37</sup> and the significant influence of pediatricians in advising parents regarding CP.<sup>15,16</sup> Medical professionals have the power to spread scientific knowledge and consensus regarding public health issues<sup>38</sup> like CP use. Study results also highlight the major barriers for pediatricians to providing advice regarding child discipline to parents that need to be addressed, including physician time constraints. Additional research is also needed to identify effective ways for pediatricians to integrate child discipline advice into well child visits that are also time efficient. Ultimately such interventions should educate parents about the harms of CP and provide them with information about alternative forms of discipline that are both emotionally and physically healthier for children.

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