

## Old Dominion University ODU Digital Commons

Community & Environmental Health Faculty  
Publications

Community & Environmental Health

2000

# Identification of Violence in the Home - Pediatric and Parental Reports

Bonnie D. Kerker

Sarah McCue Horwitz

John M. Leventhal

Stacey Plichta  
*Old Dominion University*

Phillip J. Leaf

Follow this and additional works at: [https://digitalcommons.odu.edu/commhealth\\_fac\\_pubs](https://digitalcommons.odu.edu/commhealth_fac_pubs)

 Part of the [Pediatrics Commons](#), and the [Public Health Commons](#)

### Repository Citation

Kerker, Bonnie D.; Horwitz, Sarah McCue; Leventhal, John M.; Plichta, Stacey; and Leaf, Phillip J., "Identification of Violence in the Home - Pediatric and Parental Reports" (2000). *Community & Environmental Health Faculty Publications*. 65.  
[https://digitalcommons.odu.edu/commhealth\\_fac\\_pubs/65](https://digitalcommons.odu.edu/commhealth_fac_pubs/65)

### Original Publication Citation

Kerker, B. D., Horwitz, S. M., Leventhal, J. M., Plichta, S., & Leaf, P. J. (2000). Identification of violence in the home - pediatric and parental reports. *Archives of Pediatrics & Adolescent Medicine*, 154(5), 457-462. doi:10.1001/archpedi.154.5.457

This Article is brought to you for free and open access by the Community & Environmental Health at ODU Digital Commons. It has been accepted for inclusion in Community & Environmental Health Faculty Publications by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

# Identification of Violence in the Home

## *Pediatric and Parental Reports*

Bonnie D. Kerker, MPH; Sarah McCue Horwitz, PhD; John M. Leventhal, MD; Stacey Plichta, ScD; Phillip J. Leaf, PhD

**Objectives:** To compare the rates of domestic violence reported by mothers with those identified by physicians, to compare the rates of harsh discipline practices reported by mothers with the rates of abuse identified by physicians, and to examine the relationship between reported domestic violence and harsh discipline practices.

**Design:** Interviews with parents and pediatricians to compare pediatric detection of domestic violence and child abuse with parental reports of domestic violence and harsh discipline practices.

**Setting:** Community-based pediatric practices in the 13-town greater New Haven, Conn, area.

**Participants:** Of the 23 practices invited, 19 agreed to participate. Of the 2006 parents of eligible 4- to 8-year-olds asked to participate, 1886 (94%) completed the Child Behavior Checklist. Of those invited into the interview portion, 1148 (83%) completed the 90-minute in-person interview.

**Main Outcome Measures:** Percentages of cases of domestic violence identified by pediatricians and reported

by mothers. Percentages of cases of child abuse detected by pediatricians and percentages of mothers reporting that they have hit their children and left a mark.

**Results:** Pediatricians detected domestic violence in 0.3% of the cases, but parents reported domestic violence in 4.2% ( $\kappa=0.106$  [95% confidence interval,  $-0.007$  to  $0.219$ ]). Pediatricians identified physical abuse of children in 0.5% of the cases, while mothers reported hitting their children and leaving a mark in 21.6% ( $\kappa=0.003$  [95% confidence interval,  $-0.018$  to  $0.024$ ]). Mothers reporting domestic violence were significantly more likely to report hitting hard enough to leave a mark (relative risk, 1.6 [95% confidence interval, 1.09-2.38]) compared with those not reporting domestic violence. Physicians identifying domestic violence were not significantly more likely to report child abuse than those not identifying domestic violence.

**Conclusions:** Parents report more cases of violence than pediatricians detect. Pediatricians should ask parents directly about domestic violence and harsh discipline.

*Arch Pediatr Adolesc Med.* 2000;154:457-462

From the Departments of Epidemiology and Public Health (Ms Kerker and Dr Horwitz) and Pediatrics (Dr Leventhal), Yale University School of Medicine, New Haven, Conn; the College of Health Sciences, Old Dominion University, Norfolk, Va (Dr Plichta); and Department of Mental Hygiene, The Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md (Dr Leaf).

**D**OMESTIC VIOLENCE is a significant problem in the United States. Between 2 and 4 million women are physically battered annually in the United States by male partners, and at least 25% to 30% of all American women are at risk of domestic violence during their lifetime.<sup>1</sup> Spousal or partner abuse not only can be physically and psychologically devastating to women, but it can also have similarly devastating effects on children.<sup>2</sup>

### *For editorial comment see page 431*

Over 3 million children in the United States witness violence between parents annually. Most studies assessing children of battered women report serious childhood problems, including increased anxieties, poor school performance, conduct disorders, in-

creased aggression, lower self-esteem, impaired social problem-solving skills, and generally high levels of behavioral problems and psychopathological conditions.<sup>3</sup>

Witnessing violence can traumatize children through fear and a sense of helplessness in being unable to protect their mothers. In fact, children often blame themselves for causing the violence.<sup>2</sup> In addition, the stressors of spousal abuse can severely impair women's parenting abilities. Abused women might be less equipped to care for their children and may be more depressed than other women, which certainly would affect their children's well-being.<sup>3</sup>

Moreover, child abuse occurs disproportionately in homes in which domestic violence exists. Around 3 million cases of child abuse and neglect are reported annually,<sup>4</sup> and children of battered women are 6 to 15 times more likely to be abused.<sup>1</sup> In cases of severe wife abuse, the coexistence of child abuse may be as high as 77%.<sup>1</sup>

## PARTICIPANTS AND METHODS DESIGN

### PROVIDER SAMPLE

Data reported here come from a large, community-based, longitudinal study of the diagnosis and management of psychosocial problems in primary care pediatric practices.<sup>8</sup> The study used a random sample of pediatric practices in the 13-town greater New Haven, Conn, area. Practices were grouped into 4 categories, and all of the prepaid group practices and neighborhood health centers were included in the study. Within the other 2 strata, we randomly selected practices for inclusion. Overall, 19 of the 23 invited practices agreed to participate, for an 83% participation rate. These practices included 50 pediatricians and 20 pediatric nurse practitioners.

For the health care provider interview, we developed a checklist of psychosocial and developmental problems based on a World Health Organization–sponsored primary care, child-oriented classification system by Burns et al.<sup>9</sup> Based on the 3 categories considered in this system (mental disorders, psychological symptoms, and social problems), we developed a 13-category Provider Assessment questionnaire, which included the areas of physical growth and development problems, school problems, cognitive/language problems, behavioral problems, psychophysiological problems, emotional problems, thought problems, peer activity problems, parent-child problems, social problems, and family difficulties. The form also included questions about medical conditions.

Following the child's index visit (the first visit by an age-appropriate child in a family), clinicians were asked to

complete information on each specific problem within the 13 categories. For each problem noted, clinicians were asked to rate the occurrence of the problem (ie, new, continuing, or past) and indicate its severity (ie, mild vs moderate/severe). The questionnaires had a test-retest (intraobserver [S.M.H. and J.M.L.]) agreement of .80.<sup>8</sup> Forms, which were completed for all participating children, took between 3 and 8 minutes to finish, and clinicians received \$6 for completing each form.

### PARENT SAMPLE

Recruitment of subjects from each practice occurred during two 3-week periods. The first period of recruitment was between September 1, 1987, and December 31, 1987, and the second between March 1, 1988, and June 30, 1988. Research staff was present in the waiting rooms during all hours of operation. Prior to seeing the clinician, families of all 4- to 8-year-olds were invited to participate, but they were only invited to do so on the first contact with an eligible child, with procedures approved by the Yale University School of Medicine's Institutional Review Board. If the adult accompanying the child agreed to participate, the Child Behavior Checklist, a standardized instrument for assessing children's mental health, was completed, and additional sociodemographic data were collected. Of the 2006 eligible families, 1886 (94%) agreed to participate and completed the Child Behavior Checklist.

Parents of all children who either screened positive on the parent-completed Child Behavior Checklist or were identified with a psychosocial problem by the pediatrician (n=919) and a 50% random sample of children who screened negative for these problems (n=464) were invited into the interview portion of the study. Of those invited, 1148 (83%) completed the 90-minute in-person

Other studies have shown that husbands who batter their wives are more likely to hurt their children.<sup>3</sup>

Identifying spousal abuse might be an important means of identifying both physical and emotional abuse of children. Because battered women often first present for help in the health care system, health care providers are in a unique position to help both women and their children. Abused women, however, are sometimes embarrassed by their physical scars and, thus, will not always seek care. They might avoid the health care system owing to either a fear of disclosure of abuse or the coercion of their partner.<sup>3</sup> Women are less likely, though, to sacrifice the health of their children and, therefore, often seek medical care from pediatricians.<sup>1</sup>

Given this health care-seeking behavior and the enormous effect that parents' well-being has on children, identifying domestic violence is relevant to health care, especially to pediatric health care. To care for the overall physical and mental health of children, pediatricians must have a comprehensive understanding of the children's home lives,<sup>2</sup> including physical and mental stressors. The traditional role of the pediatrician, then, must expand to include the psychosocial aspects of health care, as well as any problem that affects a child's environment.<sup>6</sup> Because parents often develop a rapport with pediatricians, an honest and forthcoming dialogue about violence in the home might not be difficult, especially if it is framed in terms of its relevance

to the children. As a result, pediatricians are in a unique position to discuss issues of the child's health and well-being, including domestic violence, with parents.<sup>5</sup>

Even when abused women do not seek help from pediatricians, these physicians may be in a unique position to recognize abuse. They might notice obvious bruises<sup>5</sup> or be able to detect less obvious signs such as depression, anxiety, failure to keep medical appointments, reluctance to answer questions about discipline in the home, or frequent office visits for complaints not borne out by the medical evaluation of the child.<sup>7</sup>

Most of the literature, however, focuses on adult medical practices, and little research has been done to understand the identification of domestic violence in the families of pediatric patients. Furthermore, although research findings have suggested an association between domestic violence and child abuse, the relationship between admission of domestic violence and admission of child abuse is not well understood.

Therefore, the purposes of this study were to (1) compare the rates of domestic violence reported by mothers with those identified by physicians, (2) compare the rates of harsh discipline practices reported by mothers with the rates of abuse identified by physicians, and (3) examine the relationship between reported domestic violence and harsh discipline practices. This research uses a unique data set composed of pediatricians' and patients' (parents') re-

interview, covering topics ranging from sociodemographic factors to child psychopathology and domestic violence. The analyses presented in this article are limited to the 965 patients seen by physicians, which was 84.1% of the sample. The remainder of the patients were seen by nurse practitioners. In addition, the sample was further limited to the 939 biological, adoptive, or foster mothers, which were 97.3% of the subsample.

Because we oversampled children identified with a psychosocial problem by the pediatrician and the Child Behavior Checklist, all analyses were done on both weighted and unweighted data. Data were weighted using the inverse probability of selection. The results are presented for the weighted data, with the unweighted data listed in brackets. The final weighted sample size was 1563.

## DEFINITION OF VARIABLES

The study results presented here used the family difficulties section and the parent-child problem section of the Provider Assessment questionnaire. To identify domestic violence (defined as spousal or partner abuse), only one question in the family difficulties section asked pediatricians if they had noted any spousal/partner abuse toward the mother of the index child. The parent-child section of the Provider Assessment questionnaire included questions about whether physicians identified current physical abuse, psychological abuse, or physical neglect among the children (as noted at the index visit) or had identified such problems in the past. Responses to these questions were grouped into 1 category—any abuse.

Questions on sociodemographic characteristics were asked of the mother at the baseline interview. These included questions on the child's age, sex, ethnicity, poverty status of the family, and household composition. Physical

abuse of the mother was measured by asking the question, "Have you ever been badly beaten or bruised by another person?" and then subsequent queries as to the relationship the woman had with her abuser. When the abuser was identified as a spouse or domestic partner, the case was coded as "positive for domestic violence." To identify self-reported harsh discipline practices, mothers were asked, "Have you ever hit your children hard enough to leave a mark?"

## STATISTICAL ANALYSIS

Data analysis was performed using the Statistical Analysis System (Version 6.1; SAS, Cary, NC). After detailing the demographics of the respondent population, we compared identification of domestic violence by the pediatricians with identification by the parents. Then, we examined the comparison between the parents' admission of having hit their children hard enough to leave a mark and the pediatricians' identification of physical abuse. To test the agreement between the categorical data, adjusting for chance,  $\kappa$  statistics were calculated. The  $\kappa$  statistic was used to quantify the agreement between the identification of domestic violence by parents and pediatricians, as well as the agreement between identification of hitting hard enough to leave a mark by parents and physical abuse by pediatricians.  $\kappa$  Values range from 1.0 (perfect agreement) to -1.0 (complete disagreement).  $\kappa$  Values higher than 0.75 represent high agreement, those between 0.40 and 0.75 indicate moderate agreement, and values less than 0.40 indicate poor agreement.<sup>10,11</sup> Finally, to determine whether there was an association between the mother's reports of domestic violence and hitting hard enough to leave a mark among parents, or between the pediatrician's identification of domestic violence and any abuse, we calculated relative risk values.

responses to questions about violence, and allows a comparison between what parents report about violence and what is being detected by their children's physicians.

## RESULTS

The sociodemographic characteristics of the population are given in **Table 1**. Most of the respondents (65.8%) were between the ages 31 and 40 years, 86.9% were white, 99% were the biological mothers of the children, 6.4% were recipients of food stamps, and 7.5% received Aid to Family and Dependent Children payments. About one quarter made an annual income of less than \$25 000, and 73.6% were married. Thirty-three percent of the index visits were for well-child care, and 59% were for acute care.

When comparing the identification of domestic violence by mothers and health care providers, we found that many more mothers reported such abuse than providers detected such problems (**Table 2**). While 4.2% of the respondents admitted to ever experiencing spousal/partner abuse, pediatricians identified only 0.3% of respondents as experiencing spousal/partner abuse. No significant correlation was noted between type of visit and pediatrician detection of domestic violence ( $\chi^2 = .42, P = .81$ ). Less than 5% of women who reported spousal abuse were identified by physicians as experiencing domestic violence. To measure the agreement between respondents and pediatricians, a  $\kappa$  coefficient

was also calculated (0.106 [0.108]; 95% confidence interval, -0.007 to 0.219 [-0.007 to 0.223]).

When we next compared mothers' and pediatricians' responses regarding harsh discipline practices and abuse, many more parents reported such practices than pediatricians identified abuse (**Table 3**). When parents were questioned, 21.6% indicated that they had left a mark when they had hit their children. In contrast, pediatricians identified physical abuse in only 0.5% of the patients, physical neglect in 0.1% of the patients, and psychological abuse in 0.3% of the patients. Overall, they found signs of some type of abuse or neglect in less than 1% of the patients. Type of visit, however, was significantly related to the report of any abuse by physicians ( $\chi^2 = 11.3, P = .004$ ), with abuse being identified more in well-child visits.

We also compared pediatricians' identification of physical abuse and parents' reports of hitting their children hard enough to leave a mark, and the agreement between parent-identification and physician-identification was low. Less than 1% of those cases reported by parents as experiencing this type of discipline were also identified by physicians as being physically abused. In addition, the  $\kappa$  coefficient between the physician and parent recognition was 0.003 [0.003]; 95% confidence interval, -0.018 to 0.024 [-0.018 to 0.024].

We also were interested in whether there was an association between the disclosure of spousal/partner abuse and

**Table 1. Sociodemographic Characteristics of 1148 Respondents**

Variable	Weighted [Unweighted] No.	Weighted [Unweighted] Percentage
Respondent age, y		
20-30	336 [219]	21.5 [23.3]
31-40	1028 [604]	65.8 [64.3]
>40	199 [116]	12.7 [12.4]
Respondent ethnicity		
White	1358 [789]	86.9 [84.0]
Black	115 [84]	7.4 [8.9]
Hispanic	80 [61]	5.1 [6.5]
Asian	9 [4]	0.6 [0.4]
Native American	1 [1]	0.1 [0.1]
Relationship to child		
Biological mother	1548 [930]	99.0 [99.0]
Adoptive mother	15 [9]	1.0 [1.0]
Foster care mother	0 [0]	0.0 [0]
Food stamp recipient	100 [72]	6.4 [7.7]
AFDC receipt*	117 [84]	7.5 [8.9]
Income group, \$		
<25 000	367 [252]	24.4 [27.8]
25 000-44 999	559 [335]	37.2 [36.9]
≥45 000	559 [321]	38.4 [35.4]
Marital status		
Married	1150 [671]	73.6 [71.4]
Never married	93 [62]	6.0 [6.6]
Divorced	99 [65]	6.3 [6.9]
Separated	46 [33]	2.9 [3.5]
Remarried	116 [69]	7.5 [7.3]
Cohabiting	49 [33]	3.2 [3.5]
Widowed	10 [6]	0.6 [0.6]

\*AFDC indicates Aid to Family and Dependent Children.

**Table 2. Mother-Reported and Physician-Identified Spousal/Partner Abuse**

Variable	Weighted [Unweighted] No.	Weighted [Unweighted] Percentage
Mother-reported spousal/partner abuse	65 [48]	4.2 [5.2]
Physician-identified spousal/partner abuse	5 [5]	0.3 [0.5]
Parent identified spousal abuse also identified by physician		
Yes	3 [3]	4.6 [6.25]
No	62 [45]	95.4 [93.75]

the identification of hitting hard enough to leave a mark by mothers, or detection of physical abuse by pediatricians. A significant association was noted between parents' reporting of spousal/partner abuse and their reporting of hitting hard enough to leave a mark (relative risk = 1.61 [1.66]; 95% confidence interval, 1.09-2.38 [1.13-2.44]). This indicates that parents reporting spousal/partner abuse were 1.6 times more likely to report that they had hit their children hard enough to leave a mark, compared with those who did not report domestic violence. No statistically significant relationship was noted between physicians' identification of spousal/partner abuse and their identification of any child abuse (relative risk = 5.85 [5.78]; 95% confidence interval, 0.39-90.90

**Table 3. Mother-Reported and Physician-Identified Discipline/Child Abuse**

Variable	Weighted [Unweighted] No.	Weighted [Unweighted] Percentage
Mother-reported discipline		
Mother has hit hard enough to leave a mark	335 [218]	21.6 [23.4]
Physician-identified child abuse		
Physical neglect	2 [2]	0.1 [0.2]
Physical abuse	8 [7]	0.5 [0.7]
Psychological abuse	5 [5]	0.3 [0.5]
Any abuse	14 [13]	0.9 [1.4]
Mother-identified hit leaving mark also identified as physical abuse by physician		
Yes	2 [2]	0.60 [0.92]
No	333 [216]	99.4 [99.1]

[0.38-83.3]). Although this relative risk is elevated, its lack of statistical significance is probably due to the low prevalence of identification. Nevertheless, this indicates that the rate of child abuse identification was not higher among those identified as experiencing spousal/partner abuse than those who were not experiencing such domestic violence.

## COMMENT

### SPOUSAL/PARTNER ABUSE

The results of this study indicate that women who seek pediatric care in a community setting experience a substantial amount of domestic violence. In this sample, 4.2% of women reported ever-experiencing spousal/partner abuse, indicating that domestic violence is more widespread than physicians might think. Domestic violence does not occur only among high-risk women who frequent the emergency department (ED). Moreover, this study indicates that, if asked appropriately, at least some women are apt to share this information. The identification by women of domestic violence in this study, however, might be an underestimation of total abuse because women were only asked about physical abuse.

Among nonpediatric outpatient practices, identification of domestic violence has been reported to be somewhat higher than the identification in our sample. Several studies of EDs and clinics indicate that physicians detect spousal abuse in 10% to 50% of instances.<sup>12</sup> Physicians, however, do not pay as much attention to violence as patients would like. A survey of 164 adult patients at public and private clinics disclosed that 78% of respondents favored routine inquiry about physical abuse and 68% favored routine inquiry about sexual abuse. In contrast, only 33% of physicians believed that questions about violence should be asked routinely, and only 7% of patients reported being asked about physical abuse. Even fewer patients (6%) reported being asked about sexual abuse.<sup>13</sup> In addition, according to an American Medical Association survey, more than 85% of Americans believed that they could tell a physician if they had been a victim or a perpetrator of family violence.<sup>14</sup> This was more than were willing to tell their priest, rabbi, or a police officer.<sup>14</sup>

The pediatricians in our study did not identify most cases of self-reported spousal/partner abuse. Our results point to a greatly missed opportunity for identifying family violence in the pediatric primary care setting. As discussed earlier, most women favor direct questioning about abuse and are probably less likely to disclose such information without inquiry. The need for direct questioning may be particularly necessary in pediatric practices, since women may not think that their domestic violence problems fall within the purview of pediatrics. Because women often develop trusting relationships with their children's pediatricians and may confide in them before any other nonfamily member, physicians have a unique opportunity to screen patients and initiate interventions.<sup>15</sup> It is up to the pediatrician, then, to expand the detection of domestic violence into the realm of pediatrics. In fact, the American Academy of Pediatrics Committee on Child Abuse and Neglect states that domestic violence is a pediatric issue. It recommends that pediatricians "attempt to recognize evidence of family or intimate partner violence in the office setting," and that they "intervene in a sensitive and skillful manner that maximizes the safety of women and children victims."<sup>7</sup>

Since 1992, the Joint Hospital Commission on the Accreditation of Healthcare Organizations has required that EDs and ambulatory settings of all accredited hospitals implement policies and procedures to identify victims and to treat or refer victims for treatment.<sup>15</sup> There is much evidence supporting the effectiveness of implementing protocols that encourage routine inquiry about domestic violence in EDs. In one study, identification of domestic violence over 1 year in a general ED rose from 5.6% to 30% when staff were trained in domestic violence and a domestic violence identification protocol was introduced.<sup>16</sup> In another study, the identification of domestic violence rose from 0%, when a standard self-administered health history form (that did not specifically ask about domestic violence) was used, to 11.6%, when a single question about domestic violence was added.<sup>17</sup> While the higher level of identification of domestic violence in EDs may be due in part to the fact that many women attending EDs are there precisely because of physical violence in the home, the increase in identification is also likely to be influenced by the use of protocols inquiring about such issues. Use of such strategies in pediatric practices may also increase the identification of domestic violence.

Previous studies have identified a very low level of detection of domestic violence in pediatric practice settings other than primary care. For example, battered women are rarely identified in pediatric EDs. In fact, some ED pediatricians have indicated that the care of battered women does not fall within the realm of pediatrics,<sup>1</sup> even though domestic violence is prevalent among families of children who use pediatric EDs. A recent study found that 52% of 157 women (with young children) surveyed at an urban pediatric ED reported a history of adult physical abuse.<sup>18</sup> Nevertheless, many studies indicate that physicians generally feel uncomfortable discussing violence with their patients because education about domestic violence is generally lacking in medical schools and residency curricula.<sup>1</sup> In addition, general ED physicians have identified a lack of privacy as the most fundamental bar-

rier to screening patients routinely about domestic violence. A lack of privacy is a serious obstacle because it means that there is often no safe place to ask women sensitive, personal questions. Staffing levels also have been described by ED physicians as inadequate to handle discussions about domestic violence.<sup>19</sup>

Moreover, a late 1980s study of all 143 accredited US and Canadian medical schools found that 58% of the responding schools did not require instruction about battering in their curriculum.<sup>1</sup> Physicians themselves also have noted several attitudes that act as barriers to their discussing the issue with patients. For example, they cite a fear of offending patients, a feeling that the issue is "culturally defined as private," a feeling that most patients are not at risk, a feeling of powerlessness to respond owing to a lack of training, and a feeling that it is not worthwhile if the patient does not leave the situation.<sup>1,20</sup> Understanding children's home environment, however, is essential for their proper care, and recognizing a violent environment could lead to a greater identification of child abuse and neglect.

## CHILD ABUSE

The prevalence of harsh disciplinary treatment of children was high among this population; more than 20% of the mothers indicated that they had left a mark when they had hit their children. Although most studies report that more than 90% of American families use spanking as a means of discipline, a much lower percentage report harsh or abusive spanking. For example, in a study of 2-parent, middle-class families, only 5% indicated that they sometimes inflict lasting marks when they spank their children.<sup>21</sup>

The pediatricians in this study rarely identified abuse of children among their patients. Although parents were not asked specifically about child abuse, we consider a positive response to "have hit hard enough to leave a mark" to indicate abusive behavior. Nevertheless, the pediatricians in our study may have identified somewhat fewer children than parents reported because of the different wording of the questions. It could be that physicians do not recognize this type of discipline as abuse. Or, since most 4- to 8-year-olds do not see the pediatrician very often, perhaps the marks were not left on the children often enough to be noticed by the pediatricians. Although we might expect a pediatrician to recognize the psychological profile of an abusing parent, perhaps physicians have received more training regarding the obvious, physical signs of abuse.

The findings of this study indicate that, in community-based practices, child abuse or neglect is rarely identified (0.9%). Nationwide, in the early 1990s, the identification rate of child maltreatment in the 3- to 9-year-old age range has been estimated, based on 1990 National Child Abuse and Neglect Data Set data and the 1990 US Census Tract, to have been 1.3%.<sup>22,23</sup> The rate of pediatric identification of abusive practices in our sample may not seem low when compared with the national rate, but both rates seem to underestimate parental reports of harsh discipline.

A further example of inadequate pediatric identification of abuse is a recent study, in which 31% of 173 abused children with head injuries were seen by physicians after the injury without the diagnosis initially being recognized.<sup>24</sup> Because the pediatrician is often the only nonfamilial adult

with whom the young child has contact, it is particularly important for primary care providers to understand and identify risk factors for harsh discipline practices or abuse, so that they can better recognize abusive situations.

One key risk factor in identifying child abuse is spousal/partner abuse. As discussed earlier, an association between domestic violence and child abuse/neglect has been suggested in research. In fact, children in homes in which their mothers are battered are at greater risk of physical abuse from either parent.<sup>5</sup> The association between responses of admission of child and spousal/partner abuse was supported by our study: respondents reporting domestic violence were 1.6 times more likely to report hitting their children hard enough to leave a mark compared with those who did not report spousal/partner abuse. Clearly, more research is needed in this area since identifying domestic violence may be an important factor in recognizing child abuse.

### STRENGTHS/LIMITATIONS

This original data set is large and a high response rate was attained (1886 participants [(94%)]). By limiting the patient sample to mothers and the health care provider sample to pediatricians, we were able to make inferences from our data to these specific populations. Furthermore, we were able to interview both health care providers and mothers regarding the same children. This is not generally common in community-based settings and has allowed us to examine the agreement between maternal reports and physicians' identification for the same children.

As noted earlier, a limitation to this study is the difference between the questions asked of the pediatricians and the mothers. Mothers were specifically asked about domestic violence, while pediatricians were asked to indicate if they had noted any family or social problems. In addition, the pediatricians' lower rate of identification of abuse could be because their definition of abuse does not include hitting hard enough to leave a mark; or because this harsh discipline practice reported by mothers may not have occurred often enough to be noticed by the physicians. The difference in the questions asked would be more troubling if we included more commonly accepted practices, such as spanking, in our measurement of parental reporting. However, we only included a practice that generally seems to be accepted as abusive, to ensure a more appropriate comparison.

This study was conducted in the late 1980s and early 1990s, when less attention was being paid to domestic violence and abuse. Because clinicians and families generally seem more aware of these issues in the late 1990s, more pediatricians may take the responsibility to ask about domestic violence and abuse today than they did then.

### IMPLICATIONS

In the past, pediatricians have been reluctant to discuss issues of domestic violence with their patient's parents because many physicians lacked training, did not feel comfortable with the topic, or believed that spousal/partner abuse is out of the pediatric domain. Identifying domestic violence, however, may be a useful risk factor for recognizing child abuse, which is clearly within the appropriate domain of pediatricians. Furthermore, pediatricians often miss opportu-

nities to identify cases of child abuse itself among their patients. It should be the responsibility of medical educators, then, to ensure that pediatricians are able and willing to discuss all aspects of family violence with patients and their parents in routine pediatric assessments. Only after health care providers are aware of the overall situation affecting a child can they give adequate and appropriate care.

Accepted for publication November 12, 1999.

This study was funded by grant R01 MH41638 and the Training Program in Mental Health Services Research, grant 5 T32 MH15783, from the National Institute of Mental Health, Bethesda, Md.

Presented at the Annual Meeting of the Pediatric Academic Societies, San Francisco, Calif, May 1, 1999.

We thank Griselda Chapa, MS, for her helpful comments on an earlier draft of the manuscript.

Corresponding author: Sarah McCue Horwitz, PhD, Department of Epidemiology and Public Health, Yale University School of Medicine, 60 College St, Box 208034, New Haven, CT 06520-8034.

### REFERENCES

1. Wright RJ, Wright RO, Isaac NE. Response to battered mothers in the pediatric emergency department. *Pediatrics*. 1997;99:186-192.
2. Dubowitz H, King H. Family violence. *Pediatric Clin North Am*. 1995;42:153-163.
3. McCloskey LA, Figueredo AJ, Koss MP. The effects of systemic family violence on children's mental health. *Child Dev*. 1995;66:1239-1261.
4. Steiner RP, Vansickle K, Lippmann SB. Domestic violence. *Postgrad Med*. 1996; 100:103-116.
5. Barkan SE, Gary LT. Women abuse and pediatricians: expanding the web of detection. *J Am Med Women's Assoc*. 1996;51:96-100.
6. Wolfe DA, Korsch B. Witnessing domestic violence during childhood and adolescence: implication for a pediatric practice. *Pediatrics*. 1994;94:594-599.
7. American Academy of Pediatrics Committee on Child Abuse and Neglect. The role of the pediatrician in recognizing and intervening on behalf of abused women. *Pediatrics*. 1998;101:1091-1092.
8. Horwitz SM, Leaf PJ, Leventhal JM, Forsyth B, Speechley KN. Identification and management of psychosocial and developmental problems in community-based, primary care pediatric practices. *Pediatrics*. 1992;89:480-485.
9. Burns BJ, Burke JD, Regier DA. A child-oriented psychosocial classification system. In: Lipkin M, Kupka K, eds. *Psychosocial Factors Affecting Health*. New York, NY: Praeger Scientific; 1982:185-208.
10. Cohen J. A coefficient of agreement of nominal scales. *Educ Psychol Meas*. 1960; 20:37-46.
11. Fleiss JL. *Statistical Methods for Rates and Proportions*. 2nd ed. New York, NY: John Wiley & Sons Inc; 1981.
12. Gremillion DH, Kanof EP. Overcoming barriers to physician involvement in identifying and referring victims of domestic violence. *Ann Emerg Med*. 1996;27:769-773.
13. Friedman LS, Samet JH, Roberts MS, Hudlin M, Hans P. Inquiry about victimization experiences. *Arch Intern Med*. 1992;152:1186-1190.
14. McAfee RE. Physicians and domestic violence: can we make a difference? *JAMA*. 1995;273:1790-1791.
15. Valenti J. Domestic violence. *JAMA*. 1998;280:470-472.
16. McLeer SV, Anwar R. A study of battered women presenting in an emergency department. *Am J Public Health*. 1989;79:65-66.
17. Freund KM, Bak SM, Blackhall L. Identifying domestic violence in primary care practice. *J Gen Intern Med*. 1996;11:44-46.
18. Duffy SJ, McGrath ME, Becker BM, Linakis JG. Mothers with histories of domestic violence in a pediatric emergency department. *Pediatrics*. 1999;103:1007-1013.
19. Waller AE, Hohenhaus SM, Shah PJ, Stern EA. Development and validation of an emergency department screening and referral protocol for victims of domestic violence. *Ann Emerg Med*. 1996;27:754-760.
20. Neufeld B. SAFE questions: overcoming barriers to the detection of domestic violence. *Ann Fam Physician*. 1996;53:2575-2580.
21. American Academy of Pediatrics. Guidance for effective discipline. *Pediatrics*. 1998;101:723-728.
22. US Department of Health and Human Services. *National Child Abuse and Neglect Data System: 1990 Summary Data Component*. Washington, DC: US Dept of Health and Human Services; 1990. Working Paper No. 1.
23. US Bureau of the Census. 1990 census lookup. Available at: <http://venus.census.gov/cdrom/lookup>. Accessed June 30, 1999.
24. Jenny C, Hymel KP, Ritzen A, Reinert SE, Hay TC. Analysis of missed cases of abusive head trauma. *JAMA*. 1999;281:621-626.