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# Behaviors of Children Who Are Exposed and Not Exposed to Intimate Partner Violence: An Analysis of 330 Black, White, and Hispanic Children

Judith M. McFarlane, DrPH\*; Janet Y. Groff, MD, PhD†; Jennifer A. O'Brien, MA‡; and Kathy Watson, MS<sup>a</sup>

**ABSTRACT.** *Objective.* To compare the behaviors of black, white, and Hispanic children who were 18 months to 18 years of age and exposed to intimate partner violence with an age- and ethnically similar sample of children who were not exposed to violence and to compare both exposed and nonexposed children to normative samples.

*Methods.* As part of a study on treatments for abused women in primary care public health clinics and Women, Infants and Children clinics in a large urban area, 258 abused mothers completed the Child Behavior Checklist (CBCL) on 1 of their randomly selected children between the ages of 18 months and 18 years. An ethnically similar sample of 72 nonabused mothers also completed the CBCL. The CBCL is a standardized instrument that provides a parental report of the extent of a child's behavioral problems and social competencies. The CBCL consists of a form for children 18 months to 5 years and a version for ages 6 to 18 years. The CBCL is orally administered to a parent, who rates the presence and frequency of certain behaviors on a 3-point scale (0 = not true, 1 = somewhat or sometimes true, and 2 = very true or often true). The time period is the last 6 months for the child 6 to 18 years of age and 2 months for the child 18 months to 5 years of age. Examples of behaviors for the child age 6 to 18 years include "gets in many fights," "truancy, skips school." Examples of behaviors for the child 18 months to 5 years of age include "cruel to animals," "physically attacks people," and "doesn't want to sleep alone." Both forms of the CBCL consist of 2 broadband factors of behavioral problems: internalizing and externalizing with mean scale scores for national normative samples as well as clinically referred and nonreferred samples of children. Internalizing behaviors include anxiety/depression, withdrawal, and somatic complaints. Externalizing behaviors include attention problems, aggressive behavior, and rule-breaking actions. Behavior scales yield a score of total behavioral problems. Scores are summed and then converted to normalized T scores. T scores  $\geq 60$  are within the borderline/clinical referral range—higher scores represent more deviant behavior. Multivariate analyses of variance (MANOVAs) were used to determine whether children from abused mothers differed significantly in their internalizing behaviors, externalizing behaviors, and total behavior problems from children of nonabused mothers. One sample *t* tests were used to compare children from abused and nonabused mothers to the matched clinically referred and nonreferred nor-

mative sample. Four pair-wise comparisons were considered: 1) children from abused women to referred norm, 2) children from abused women to nonreferred norm, 3) children from nonabused women to referred norm, and 4) children from nonabused to nonreferred norm. The internal, external, and total behavior problem T scores were dichotomized into a referral status: nonreferred = T score  $< 60$ , referred = T score  $\geq 60$ . Frequencies and percentages were used to describe the distribution of referral status among the children from the abused and nonabused women, and  $\chi^2$  tests of independence were used to determine whether the groups were significantly different.

*Results.* No significant differences in demographic characteristics between children from the abused women and nonabused women were observed. The sample consisted of a large number of Hispanic children (68.9%) and slightly more girls (53.6%), and nearly half (45.2%) had annual household incomes  $< \$10\,000$ . Means, standard deviations, and results from the MANOVAs performed on internal, external, and total behavior problem scores between children from abused and nonabused women revealed no significant differences ( $F[3,139] = 1.21$ ) for children ages 18 months through 5 years. Results from the MANOVA performed for ages 6 through 18 years revealed a significant group difference ( $F[3,183] = 3.13$ ). Univariate tests revealed significant group differences for internalizing behavior ( $F[1,185] = 6.81$ ), externalizing behavior ( $F[1,185] = 7.84$ ), and total behavior problems ( $F[1,185] = 9.45$ ). Overall, children of abused mothers had significantly higher internalizing ( $58.5 \pm 12.1$ ), externalizing ( $55.5 \pm 12.4$ ), and total behavior problems ( $57.6 \pm 12.3$ ) scores than the internalizing ( $52.9 \pm 13.7$ ), externalizing ( $49.7 \pm 10.6$ ), and total behavior problems ( $51.0 \pm 13.0$ ) scores exhibited for children of nonabused mothers. Most comparisons of children from the abused women to the referred and nonreferred norms are significant. The mean internal, external, and total behavior problem scores from children of abused women were significantly higher than the nonreferred norms and significantly lower than the referred norms. In contrast, all comparisons for children from nonabused women were not significantly different from the nonreferred norms.

*Conclusions.* Children, ages 6 to 18 years, of abused mothers exhibit significantly more internalizing, externalizing, and total behavior problems than children for the same age and sex of nonabused mothers. In addition, the mean internalizing behavior score for boys 6 to 11 years of age as well as girls and boys 12 to 18 years of age of abused mothers were not significantly different from the clinical referral norms. Internalizing behaviors of anxiety, withdrawal, and depression are consistent with suicidal risk. The association of a child's exposure to intimate partner violence and subsequent attempted and/or completed suicide demands research. Our data demonstrate that children of abused mothers have significantly more behavioral problems than the nonclini-

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cally referred norm children but also, for most children, display significantly fewer problems than the clinically referred children. These children of abused mothers are clearly suspended above normal and below deviant, with children ages 6 to 18 being at the greatest risk. If abused mothers can be identified and treated, then perhaps behavior problems of their children can be arrested and behavioral scores improved. The American Academy of Pediatrics Committee on Child Abuse and Neglect recommends routine screening of all women for abuse at the time of the well-child visit and implementation of a protocol that includes a safety plan for the entire family. Clinicians can use this research information to assess for intimate partner violence during child health visits and inform abused mothers of the potential effects on their children's behavior. Early detection and treatment for intimate partner violence against women has the potential to interrupt and prevent behavioral problems for their children. *Pediatrics* 2003;112:e202–e207. URL: <http://www.pediatrics.org/cgi/content/full/112/3/e202>; children, intimate partner violence.

ABBREVIATIONS. CBCL, Child Behavior Checklist; MANOVA, multivariate analysis of variance.

Julie, age 10, was at a friend's house when her mother was beaten and stabbed. Julie heard sirens and ran home. Paul and Mark, ages 2 and 6, were in their bedroom, where they had been carried by their father and the door had been locked. They listened as their mother screamed for help. Mark squeezed through the bedroom window and ran outside to find older sister Julie. Julie and Mark arrived back at the house to watch their father purposely cut himself with the same knife used to stab their mother and listened to him explain to the police minutes later how he was hurt defending himself from his wife. Six months later, none of the children had received counseling. Julie stopped playing soccer and associating with friends. Mark began to hit and kick other children at school, and Paul had stopped talking and refuses to leave his mother's side.

In the United States, it is estimated that 10 million children annually witness the punching, kicking, and beating of their parent, most commonly their mother.<sup>1,2</sup> Children who grow up observing intimate partner violence against their mother are at a much higher risk for emotional, behavioral, physiological, cognitive, and social problems.<sup>3–5</sup> Children of every age are affected in some way by exposure to domestic violence.<sup>6,7</sup> Infants and toddlers show poor weight gain, poor sleeping habits, irritability, and other evidence of general distress, such as regression.<sup>2</sup> Preschool children demonstrate anxiety and fearfulness, with boys showing more aggressive and disruptive behaviors than girls.<sup>8</sup> School-age children have been reported to have problems at school<sup>9</sup> and posttraumatic stress disorder.<sup>5</sup> In one study, 365 abused mothers described the same behaviors of depression, noncompliance, and aggression as their children, ages 6 to 12 years.<sup>10</sup>

Higher levels of abuse seem to result in more severe child dysfunction.<sup>7,9,11</sup> In one of the few longitudinal studies of the effects of marital violence, the consequences of domestic violence lasted far into adulthood, and parents' reports of marital violence predicted child outcomes independent of parents' reports of abusive behavior toward children and problems with alcohol or drug use.<sup>12</sup> These findings and the works of others affirm that although children

are sensitive to parental verbal aggression, it is the acts of physical abuse that are most influential.<sup>9,13</sup>

Most studies on children of abused women have involved mothers and children residing in battered women's shelters. Few community samples exist, and no study was identified using a triethnic public clinic population with a comparison group of children of nonabused women. The authors hypothesized that children who were exposed to intimate partner violence against their mothers during the preceding 12 months would have significantly more behavioral problems compared with children who were not exposed to intimate partner violence against their mothers.

## METHODS

The research reported here is from the baseline data of a randomized intervention study on the effectiveness of 2 levels of abuse treatment services. The study is being conducted in primary care public health clinics and Women, Infants & Children clinics in a large urban area. All women who were between the ages of 18 and 44 and spoke English or Spanish were screened for intimate partner (ie, spouse/common law, ex-spouse/ex-common law, boyfriend/girlfriend, or ex-boyfriend/girlfriend) physical or sexual assaults, occurring within the preceding 12 months, until a sample of 360 abused women were entered into the study. Using purposeful sampling for age, ethnicity, and primary language, a comparison group of 108 nonabused women who attended the same clinics were entered into the study. A list of all children between the ages of 18 months and 18 years was composed for each woman, and 1 child was chosen at random for the child behavior study. After informed written consent was obtained, each woman with a child eligible for the study was administered the most current version available of the Child Behavior Checklist (CBCL).<sup>14,15</sup> All women were offered a \$20 stipend for the interview.

The CBCL is a standardized instrument that provides a parental report of the extent of a child's behavioral problems and social competencies. The CBCL consists of a form for children 18 months to 5 years<sup>14</sup> and a version for ages 6 to 18 years.<sup>15</sup> The CBCL is orally administered to a parent, who rates the presence and frequency of certain behaviors on a 3-point scale (0 = not true, 1 = somewhat or sometimes true, and 2 = very true or often true). The time period is the last 6 months for the child 6 to 18 years of age and 2 months for the child 18 months to 5 years of age. Examples of behaviors for the child age 6 to 18 years include "destroys his/her own things," "gets in many fights," and "truancy, skips school." Examples of behaviors for the child 18 months to 5 years of age include "cruel to animals," "physically attacks people," and "doesn't want to sleep alone." Both forms of the CBCL consist of 2 broadband factors of behavioral problems: internalizing and externalizing, with mean scale scores for national normative samples as well as clinically referred and nonreferred samples of children.

Internalizing behaviors include anxiety/depression, withdrawal, and somatic complaints. Externalizing behaviors include attention problems, aggressive behavior, and rule-breaking actions. Behavioral scales yield a score of total behavioral problems. Scores are summed and then converted to normalized T scores. For 6- to 18-year-olds, T scores are age and sex specific. For children 18 months to 5 years, the T scores are not age or sex specific. For internal, external, and total behavior problems, T scores  $\geq 60$  are within the borderline/clinical referral range—higher scores represent more deviant behavior. Reliability for children 18 months to 5 years and 6 to 18 years in this sample were 0.91 to 0.87, 0.92 to 0.89, and 0.97 to 0.95 for internal, external, and total behavior problems, respectively.

## Data Analysis

Frequencies and percentages were used to describe the demographic characteristics of the children from abused and nonabused women.  $\chi^2$  tests of independence were used to determine whether the groups were different with respect to ethnicity, sex, and household income. Multivariate analyses of variance (MANOVAs) were

used to determine whether the groups differed significantly in their internalizing behaviors, externalizing behaviors, and total behavior problems. Because of the use of 2 different instruments coupled with sex and age group differences for the older children (6–18 years), the multivariate analyses were stratified into 2 groups: 18 months to 5 years and 6 to 18 years. Follow-up tests were performed when necessary. Although preliminary analyses included controlling for sex and age group main effects and interactions, no significant effects or interactions were observed; thus, only unadjusted results were presented. One-sample *t* tests were used to compare the groups to the matched clinically referred and nonreferred normative sample. Four pair-wise comparisons were considered: 1) children from abused women with referred norm, 2) children from abused women with nonreferred norm, 3) children from nonabused women with referred norm, and 4) children from nonabused with nonreferred norm. For controlling for type I error, the significance level for each pairwise comparison was set equal to 0.01. For providing efficient discrimination while minimizing the number of false positives, using the lower end of borderline as a cut score for referred versus nonreferred is recommended; therefore, the internal, external, and total behavior problem *T* scores were dichotomized into a referral status: nonreferred = *T* score <60, referred = *T* score ≥60.<sup>15</sup> Frequencies and percentages were used to describe the distribution of referral status among the children from the abused and nonabused women, and  $\chi^2$  tests of independence were used to determine whether the groups were significantly different.

## RESULTS

Frequencies, percentages, and results from the  $\chi^2$  tests of independence are shown in Table 1. No significant differences in demographic characteristics between children from the abused women and nonabused women were observed. The sample consisted of a large number of Hispanic children (68.9%) and slightly more girls (53.6%), and nearly half (45.2%) had annual household incomes <\$10 000.

Means, standard deviations, and results from the MANOVAs performed on internal, external, and total behavior problem scores between children from abused and nonabused women are shown in Table 2. Results indicated that there were no significant differences ( $F[3,139] = 1.21, P = .308$ ) between groups for ages 18 months through 5 years. However, results from the MANOVA performed for ages 6 through 18

years revealed a significant group difference ( $F[3,183] = 3.13, P = .027$ ). After adjusting  $\alpha$  to 0.0167 to control for an inflated type I error, univariate tests revealed significant group differences for internalizing behavior ( $F[1,185] = 6.81, P = .010$ ), externalizing behavior ( $F[1,185] = 7.84, P = .006$ ), and total behavior problems ( $F[1,185] = 9.45, P = .002$ ). Overall, children of abused mothers had significantly higher internalizing ( $58.5 \pm 12.1$ ), externalizing ( $55.5 \pm 12.4$ ), and total behavior problems ( $57.6 \pm 12.3$ ) scores than the internalizing ( $52.9 \pm 13.7$ ), externalizing ( $49.7 \pm 10.6$ ), and total behavior problems ( $51.0 \pm 13.0$ ) scores exhibited for children of nonabused mothers. Although ethnicity has been shown to be associated with abuse, because children were matched on ethnicity and ethnicity was not significant between groups, analyses were not adjusted for ethnicity.

Results of the 1-sample *t* tests are shown in Table 2. Most comparisons of children from the abused women with the referred and nonreferred norms are significant ( $P < .01$ ). The mean internal, external, and total behavior problem scores from children of abused women were significantly higher than the nonreferred norms and significantly lower than the referred norms. All comparisons for children from nonabused women were not significantly different from the nonreferred norms. However, most comparisons from the nonabused children were significantly different from the referred norms.

Frequencies, percentages, and the results of  $\chi^2$  test of independence for referral status (referred, nonreferred) are shown in Table 3. Overall, children 18 months to 5 years had fewer scores within the referral range. Approximately one fourth of the children from the nonabused women and more than one third of children from abused women were in the clinical referral range. Results from  $\chi^2$  tests of independence yielded a significant ( $\chi^2[1] = 4.81, P = .03$ ) difference between the abused and nonabused for external

**TABLE 1.** Demographic Characteristics of 258 Children of Abused Women Compared With 72 Children of Nonabused Women

Characteristic	Abuse		No Abuse		Total	
	N	%	N	%	N	%
Ethnicity						
Asian/Pacific Islander	2	0.8	2	2.9	4	1.2
Black	66	25.6	10	14.3	76	23.2
Hispanic	172	66.7	54	77.1	226	68.9
White	18	7.0	4	5.7	22	6.7
Total	258	100.0	70	100.0	328	100.0
	$\chi^2(3) = 6.00, P = .112$					
Sex						
Male	119	46.1	34	47.2	153	46.4
Female	139	53.9	38	52.8	177	53.6
Total	258	100.0	72	100.0	330	100.0
	$\chi^2(1) = 0.03, P = .869$					
Family income						
<\$5000	72	28.8	11	15.5	83	25.9
\$5000–\$10 000	50	20.0	12	16.9	62	19.3
\$10 000–\$20 000	76	30.4	27	38.0	103	32.1
>\$20 000	52	20.8	21	29.6	73	22.7
Total	250	100.0	71	100.0	321	100.0
	$\chi^2(3) = 6.94, P = .074$					



**TABLE 2.** Internal, External, and Total Behavior Problem Scores for Children From Abused and Nonabused Women Compared With a Referred and Nonreferred Normative Sample

Score	Abused		Nonabused		Norm Descriptives		Comparisons to Norm			
	N	Mean (SD)	N	Mean (SD)	Refer Mean (SD)	Nonrefer Mean (SD)	Abused		Nonabused	
							Refer	Nonrefer	Refer	Nonrefer
Internal										
18 mo–5 y*	116	56.3 (13.4)	27	52.3 (12.5)	61.2 (10.9)	50.2 (10.0)	‡	‡	‡	NS
6–11 y										
Boys	40	58.5 (12.1)	15	51.8 (13.1)	61.7 (11.8)	50.2 (9.6)	NS	‡	§	NS
Girls	57	57.9 (12.8)	13	55.4 (13.4)	61.4 (10.9)	50.1 (9.7)	§	‡	NS	NS
12–18 y										
Boys	23	60.7 (12.0)	9	50.1 (9.3)	61.5 (11.1)	50.5 (9.7)	NS	‡	‡	NS
Girls	22	57.7 (10.1)	8	54.1 (19.9)	62.0 (11.5)	50.1 (10.0)	NS	‡	NS	NS
Total†	142	58.5 (12.1)	45	52.9 (13.7)						
External										
18 mo–5 y*	116	55.5 (13.1)	27	51.3 (11.2)	57.3 (13.4)	50.2 (9.9)	NS	‡	‡	NS
6–11 y										
Boys	40	54.5 (13.6)	15	47.7 (10.6)	62.5 (11.6)	49.9 (9.8)	‡	§	‡	NS
Girls	57	55.1 (12.1)	13	48.2 (10.3)	61.2 (12.3)	50.0 (9.6)	‡	‡	‡	NS
12–18 y										
Boys	23	56.3 (11.0)	9	53.4 (8.9)	62.6 (10.7)	50.5 (9.7)	§	§	§	NS
Girls	22	57.4 (13.0)	8	52.4 (11.1)	62.8 (11.4)	50.8 (9.8)	‡	§	§	NS
Total†	142	55.5 (12.4)	45	49.7 (10.6)						
Total behavior problems										
18 mo–5 y*	116	57.8 (13.7)	27	52.8 (12.0)	61.7 (11.1)	50.1 (9.9)	‡	‡	‡	NS
6–11 y										
Boys	40	58.0 (12.5)	15	49.6 (12.5)	64.4 (10.7)	50.0 (9.9)	‡	‡	‡	NS
Girls	57	56.8 (12.9)	13	50.8 (14.9)	63.8 (11.3)	50.1 (9.9)	‡	‡	‡	NS
12–18 y										
Boys	23	58.5 (12.3)	9	52.2 (7.5)	64.0 (9.5)	50.5 (9.8)	§	‡	‡	NS
Girls	22	58.1 (11.4)	8	52.9 (17.1)	63.0 (10.9)	50.4 (10.1)	§	‡	NS	NS
Total†	142	57.6 (12.3)	45	51.0 (13.0)						

NS indicates not significant; SD, standard deviation.

\* Based on the scores for 18 months to 5 years, nonsignificant multivariate abuse group effect ( $F[3,139] = 1.21, P = .309$ ).

† Based on total scores for ages 6 to 18 years, significant multivariate abuse group effect ( $F[3,183] = 3.13, P = .027$ ) and univariate group effects for internal ( $F[1,185] = 6.81, P = .010$ ), external ( $F[1,185] = 7.84, P = .006$ ), and total behavior problems ( $F[1,185] = 9.45, P = .002$ ).

‡  $P < .01$ .

§  $P < .05$ .

**TABLE 3.** Frequencies and Percentages for Internal, External, and Total Behavior Problem Scores Categorized Into Referral Status: Referred (T Score  $\geq 60$ ) and Nonreferred (T  $< 60$ )

	18 Months–5 Years				6–11 Years				12–18 Years			
	Abused		Nonabused		Abused		Nonabused		Abused		Nonabused	
	n	%	n	%	n	%	n	%	n	%	n	%
Internal												
Nonreferred	67	57.8	20	74.1	50	51.5	19	67.9	26	57.8	12	70.6
Referred	49	42.2	7	25.9	47	48.5	9	32.1	19	42.2	5	29.4
Total	116	100.0	27	100.0	97	100.0	28	100.0	45	100.0	17	100.0
	$\chi^2(1) = 2.45, P = .12$				$\chi^2(1) = 2.34, P = .13$				$\chi^2(1) = 0.856, P = .36$			
External												
Nonreferred	74	63.8	21	77.8	62	39.9	24	85.7	25	55.6	12	70.6
Referred	42	36.2	6	22.2	35	36.1	4	14.3	20	44.4	5	29.4
Total	116	100.0	27	100.0	97	100.0	28	100.0	45	100.0	17	100.0
	$\chi^2(1) = 3.12, P = .08$				$\chi^2(1) = 4.81, P = .03$				$\chi^2(1) = 1.16, P = .28$			
Total behavior problems												
Nonreferred	67	57.8	20	74.1	52	53.6	21	75.0	24	53.3	13	76.5
Referred	49	42.2	7	25.9	45	46.4	7	25.0	21	46.7	4	23.5
Total	116	100.0	27	100.0	97	100.0	28	100.0	45	100.0	17	100.0
	$\chi^2(1) = 1.46, P = .23$				$\chi^2(1) = 4.09, P = .04$				$\chi^2(1) = 2.75, P = .10$			

scores and a significant ( $\chi^2[1] = 4.09$  hours,  $P = .04$ ) difference between the abused and nonabused for total behavior scores for children 6 to 11 years.

## DISCUSSION

On the basis of mother's report, children, ages 6 through 18 years, of abused mothers exhibit significantly more internalizing, externalizing, and total

behavior problems than children for the same age and sex of nonabused mothers. In addition, children of abused mothers exhibit significantly more behavioral problems than nonclinically referred children, although it is unknown how many children in the national norm sample may have resided in homes with intimate partner violence. In contrast, children of nonabused women do not differ from the nonclini-

cally referred norm children. Clearly, living in a violent home is associated with the child's behavior, regardless of age or sex. The behavior scores of children of abused mothers are significantly worse than the nonreferred children but also, for most behaviors, significantly better than the clinically referred. If abused mothers can be identified and treated, then can behavior problems of their children be arrested and scores lowered? Perhaps this is possible.

A recent study of 206 low-income, predominantly black children from inner-city, pediatric primary health care clinics revealed that mothers with a victimization history reported more externalizing and internalizing behaviors in their children, compared with mothers who had not been victimized.<sup>16</sup> The relation between mothers' history of victimization and their reports of internalizing and externalizing behavior problems in their children was mediated by pathways through maternal depression and disciplinary practices (verbal aggression). The authors concluded that treatment for victimized mothers that reduces their depressive symptoms may lead to fewer behavioral problems in their children.

In this study, children, ages 6 to 18, of abused mothers exhibited appreciably more behavior problems than children of the same age of nonabused mothers. There were no similar differences by abuse status for younger children. As no other case comparison studies were identified, we cannot contrast our findings to other studies. In addition, the CBCL was recently revised to the edition used in this study for children 18 months to 5 years of age. No studies were identified using the new age stratification with children of abused women. Earlier studies using the CBCL found that boys who are exposed to intimate partner violence are more likely to exhibit externalizing problems, whereas girls are more likely to exhibit internalizing problems,<sup>17</sup> and that a girl's age is a significant predictor of these externalizing behavior problems, with younger girls being more affected than older girls.<sup>18</sup> Two studies found no difference in sex-specific behavioral problems.<sup>19,20</sup> All of these studies were of children who resided in a shelter for abused women. Therefore, it is not known whether these results reflect the children's acute response to a crisis situation or to chronic exposure to intimate partner violence in the home. In a community sample of 83 children of abused women seeking police assistance, total behavioral problems for 4- to 11-year-old boys and girls were significantly higher than standardized norms. There was no such significant finding for children 12 to 18 years.<sup>11</sup> Tang<sup>21</sup> hypothesized that older children have more resources to facilitate their adjustment to parental intimate partner violence. Our study did not corroborate this finding. We found boys, 6 to 18 years old, of abused mothers to be at the highest risk for behavioral problems, with 44% of boys and girls 12 to 18 years of age to be in the clinical referral range for external behaviors of aggression and delinquency. A recent report from the National Institute of Justice found that childhood abuse and neglect increased the odds of arrest as a juvenile by 59%, as an adult by 28%, and for a violent crime by 30%, with boys

committing the majority of crimes.<sup>22</sup> The correlation of children's exposure to intimate partner violence and subsequent delinquency behavior merits immediate study.

Despite the limitations of maternal self-report of a child's behavior, which may underreport or overreport as a result of inadequate recall and/or lack of voluntary disclosure, as well as small sample sizes in some age- and sex-specific analyses, we found the mean internalizing behavior score for boys 6 to 11 years of age as well as girls and boys 12 to 18 years of age of abused mothers not significantly different from the clinical referral norms. Internalizing behaviors of anxiety, withdrawal, and depression are consistent with suicidal risk. The association of a child's exposure to intimate partner violence and subsequent attempted and/or completed suicide also demands research.

The American Academy of Pediatrics Committee on Child Abuse and Neglect recommends routine screening of all women for abuse at the time of the well-child visit and implementation of a protocol that includes a safety plan for the entire family.<sup>23</sup> This study found that children 6 to 18 years old of abused mothers have significantly more behavioral problems than same-age children of nonabused mothers. In addition, our data demonstrate that children of abused mothers have significantly more behavioral problems than the nonclinically referred norm children but also, for most children, display significantly fewer problems than the clinically referred children. These children of abused mothers are clearly suspended above normal and below deviant, with children ages 6 to 18 being at the greatest risk. Early detection and treatment for intimate partner violence against women has the potential to interrupt and prevent behavioral problems for their children.

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## REFERENCES

1. Humphreys J. Nursing care of children of battered women. *Pediatr Nurs.* 1997;23:122-128
2. Jaffee PG, Wolfe DA, Wilson SK. *Children of Battered Women.* Newbury Park, CA: Sage; 1990
3. Jouriles EN, McDonald R, Norwood W, Ware HS, Spiller A, Swank R. Knives, guns, and interparent violence: relations with child behavior problems. *J Fam Psychol.* 1998;12:178-194
4. Kolbo JR, Blakely EH, Engleman D. Children who witness domestic violence: a review of empirical literature. *J Interpers Violence.* 1996;11:281-293
5. Levendosky AA, Graham-Bermann SA. The moderating effects of parenting stress on children's adjustment in woman-abusing families. *J Interpers Violence.* 1998;13:383-397
6. Osofsky JD. The effects of exposure to violence on young children. *Am Psychol.* 1995;50:782-788
7. Campbell JC, Lewandowski LA. Mental and physical health effects of intimate partner violence on women and children. *Psychiatr Clin North Am.* 1997;20:253-274
8. Humphreys J. Dependent-care by battered women: protecting their children. *Health Care Women Int.* 1995;16:9-20
9. Holden GW, Geffner R, Jouriles EN. *Children Exposed to Marital Violence.* Washington, DC: American Psychological Association; 1998
10. McCloskey LA, Figueredo AJ, Koss MP. The effects of systemic family violence on children's mental health. *Child Dev.* 1995;66:1239-1261

11. Lemmey D, Malecha A, McFarlane J, et al. Severity of violence against women correlates with behavioral problems in their children. *Pediatr Nurs*. 2001;27:265-270
12. McNeal C, Amato P. Parents' marital violence: long-term consequences for children. *J Fam Iss*. 1998;19:123-139
13. Kilpatrick KL, Williams LM. Post-traumatic stress disorder in child witnesses to domestic violence. *Am J Orthopsychiatry*. 1997;67:639-644
14. Achenback TM, Rescorla LA. *Manual for the ASEBA Preschool Forms & Profiles*. Burlington, VT: University of Vermont, Department of Psychiatry; 2000
15. Achenback TM, Rescorla LA. *Manual for Child Behavior Checklist/4-18 and 1991 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry; 1991
16. Morrel TM, Dubowitz H, Kerr MA, Black MM. The effect of maternal victimization on children: a cross-informant study. *J Fam Violence*. 2003; 18:29-41
17. Fantuzzo JW, Lindquist CU. The effects of observing conjugal violence on children: a review and analysis of research methodology. *J Fam Violence*. 1989;4:77-94
18. O'Keefe M. Adjustment of children from martially violent homes. *Fam Soc*. 1994;75:403-415
19. Kerig PK. Gender and appraisals as mediators of adjustments in children exposed to interparental violence. *J Fam Violence*. 1998;13:345-363
20. Sparcarelli S, Sandler IN, Roosa M. History of spouse violence against mother: correlated risk and unique effects in child mental health. *J Fam Violence*. 1994;9:79-98
21. Tang C. Psychological impact of wife abuse: experiences of Chinese women and their children. *J Interpers Violence*. 1998;12:466-478
22. Widom CS, Maxfield MG. *An Update on the "Cycle of Violence."* Research in Brief. Washington, DC: US Department of Justice, National Institute of Justice. 2001. Publ. No. NCJ 184894
23. 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

**Behaviors of Children Who Are Exposed and Not Exposed to Intimate Partner Violence: An Analysis of 330 Black, White, and Hispanic Children**

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