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# Paternal Psychosocial Characteristics and Corporal Punishment of Their 3-Year-Old Children

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Shawna J. Lee,<sup>1</sup> Brian E. Perron,<sup>2</sup>  
Catherine A. Taylor,<sup>3</sup> and  
Neil B. Guterman<sup>4</sup>

## Abstract

This study uses data from 2,309 biological fathers who participated in the Fragile Families and Child Well-Being Study (FFCWS) to examine associations between psychosocial characteristics and levels of corporal punishment (CP) toward their 3-year-old children over the past month. Results indicate that 61% of the fathers reported no CP over the past month, 23% reported using CP once or twice, and 16% reported using CP a few times in the past month or more. In multivariate models controlling for important sociodemographic factors as well as characteristics of the child, fathers' parenting stress, major depression, heavy alcohol use, and drug use were significantly associated with greater use of CP, whereas involvement with the child and generalized anxiety disorder were not. Girls were less likely to be the recipient of CP than were boys, and child externalizing behavior problems but not internalizing behavior problems were associated with more CP.

<sup>1</sup>Wayne State University, Detroit, MI

<sup>2</sup>University of Michigan

<sup>3</sup>Tulane University, New Orleans, LA

<sup>4</sup>University of Chicago, Chicago, IL

## Corresponding Author:

Shawna J. Lee, School of Social Work and Merrill-Palmer Skillman Institute for Child and Family Development, Wayne State University, 4756 Cass Avenue, Detroit, MI 48202

E-mail: [shawnal@wayne.edu](mailto:shawnal@wayne.edu)

**Keywords**

corporal punishment, fathers, Fragile Families and Child Wellbeing Study, community study

Corporal punishment (CP), defined as “the use of physical force with the intention of causing a child to experience pain, but not injury, for the purpose of correcting or controlling a child’s behavior,” (Donnelly & Straus, 2005, p. 3) is widely used as a child disciplinary strategy in American families. Recent research from the Fragile Families and Child Well-Being Study (FFCWS) indicates that 55% of mothers had spanked their 3-year-old child at least once in the past month (C. A. Taylor, Guterman, Lee, & Rathouz, 2009). Similarly, in a national sample, 64% of mothers and 58% of fathers reported use of CP in the past 12 months (Straus & Stewart, 1999). Fathers are more likely to endorse use of aggressive parenting strategies, and, although studies are not conclusive on this issue, fathers are believed to spank children more than mothers do, after accounting for the fact that mothers spend more time with children than fathers (Straus & Stewart, 1999).

Use of CP peaks in the toddler years at approximately 3 years of age (Straus & Stewart, 1999), and, although CP is commonly used to discipline young children, research has accumulated that documents the potential negative consequences of CP for children’s well-being. Even after controlling for forms of coercive parenting, the child’s initial levels of aggression, and other potential covariates, maternal CP at age 3 was uniquely predictive of child behavioral problems at age 5 (Taylor, Manganello, Lee, & Rice, 2010). Abusive parents are more likely to use CP than nonabusive parents (Trickett & Kuczynski, 1986), and the use of CP is considered a direct risk factor for child physical abuse victimization as well as other physical, behavioral, and social health problems (Gershoff, 2002).

Despite an emerging consensus regarding the negative consequences of CP to children (Gershoff, 2002), little is known about the psychosocial mechanisms that may increase use of CP among fathers. Studies using either primarily or entirely mother respondents have shown that parental frustration is related to greater use of CP (Regalado, Sareen, Inkelas, Wissow, & Halfon, 2004). Maternal alcohol and drug use problems have also been linked to punitive discipline of children (Miller, Smyth, & Mudar, 1999). Previous FFCWS studies document that fathers with higher levels of depression are less involved with their children and experience more parenting stress (Bronte-Tinkew, Moore, Matthews, & Carrano, 2007), and fathers’ substance abuse has been linked to greater risk of child health and behavioral problems

(Osborne & Berger, 2009). However, these studies do not specifically examine the extent to which mental health and substance use influence fathers' use of coercive parenting practices. In a FFCWS study using a more limited number of psychosocial stressors than reported here, paternal parenting stress and lack of coparental support were associated with spanking but were not associated with other forms of coercive parenting (Lee, Guterman, & Lee, 2008).

Knowledge of paternal psychosocial factors that relate to fathers' disciplinary practices, including CP, is necessary for better understanding the etiology of child maltreatment and will aid in the development of services that target at-risk fathers by helping service providers understand the full range of psychosocial needs of fathers. In this study we assess the prevalence of CP using self-reported data from residential and non-residential fathers who participated in a large, diverse, community-based study of urban families. Second, we examine psychosocial mechanisms, including parenting stress, major depressive disorder, generalized anxiety disorder, alcohol use, and drug use, which are associated with paternal CP. Third, we examine the strength of the association between these factors and paternal CP, controlling for sociodemographic variables that have been linked with child maltreatment as well as paternal involvement with the child, an important factor to consider, given that greater involvement is likely to provide more situations in which fathers discipline their child.

## Method

### *Procedure and Participants*

This study uses data from the FFCWS, a birth cohort study in 20 U.S. cities with populations exceeding 200,000. All subject recruitment procedures were approved by the institutional review boards (IRB) at Columbia University and Princeton University and at the individual hospitals. A thorough description of the cities included in the study and the sampling strategy can be found in Reichman, Teitler, Garfinkel, and McLanahan (2001). The total FFCWS sample includes 4,898 families. The sample of fathers who provided data at Year 3 ( $n = 3,299$ ) included 77% ( $n = 2,966$ ) of the 3,830 fathers who participated in the baseline interview at birth plus 333 fathers not interviewed at baseline. We omitted 780 fathers because the child's mother did not participate in one or more waves of the study when data were collected on child characteristics (e.g., low birth weight, problem behaviors). An additional 210

fathers were dropped from analyses because, although they participated in the Year 3 interview, they did not provide information on key psychosocial characteristics. The final sample chosen consisted of 2,309 participants with an additional 49 fathers missing from the regression model due to missing data on other variables. Our sample includes married and cohabiting fathers, as well as non-residential fathers who indicated that they had seen the child more than once in the last 30 days. We use father self-reported data for analyses, with several exceptions. Because fathers were not asked about certain child characteristics, we use maternal report of low birth weight (baseline interview) and child behavior problems (Year 3 In-Home interview).

## Measures

*Paternal sociodemographic characteristics.* Paternal self-report data from the baseline interview at the time of the child's birth include father age, race and ethnicity, and education. Marital status and household income were from the fathers' Year 3 interview. Household income was skewed ( $M = \$46,061$ , median = \$35,000,  $SD = \$44,621$ ) and natural log transformed for analyses, with some imputed variables used. The imputation strategies are described in detail in FFCWS documentation (Fragile Families, 2008).

*Child characteristics.* At baseline mothers reported the child's sex and low birth weight if the child weighed < 2,500 grams at birth. During the Year 3 interview fathers reported the child's general health (1 = *fair or poor*, 2 = *good*, 3 = *very good*, 4 = *excellent*). During a separate in-home assessment at Year 3, mothers completed the Child Behavior Checklist 1.5-5 (CBCL; Achenbach & Rescorla, 2000). For example, mothers were asked whether it was *not true, somewhat or sometimes true, or very true or often true* that their child "clings to adults," "looks unhappy," "is too fearful," (internalizing behavior) or "is defiant," "is demanding," "destroys others' things," "is disobedient" (externalizing behavior).

## Paternal Psychosocial Characteristics

*Parenting Stress Index—Short Form (PSI-SF; Abidin, 1995; Haskett, Ahern, Ward, & Allaire, 2006).* A measure of parenting stress was created on the basis of fathers' responses to four statements such as, "Being a parent is harder than I thought it would be," and "I feel trapped by my responsibilities as a parent" (1 = *strongly disagree* to 4 = *strongly agree*;  $\alpha = .62$ ).

*Involvement with the child.* A mean score was created on the basis of the father's report of the number of days per week (0 = *never* to 7 = *every day*) he provided each of 13 common types of care to the child (e.g., sing songs or nursery rhymes with child, read stories to child, assist child with eating;  $\alpha = .83$ ).

The Composite International Diagnostic Interview—Short Form (CIDI-SF, Section A; Kessler, Andrews, Mroczek, Ustun, & Wittchen, 1998) was used to measure major depression and generalized anxiety disorder. The CIDI-SF is a standardized instrument that is consistent with the criteria set forth in the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; *DSM-III-R*; American Psychiatric Association, 1987). This instrument has good reliability and validity (Kessler et al., 1998). All disorders reflect current diagnoses.

*Generalized anxiety disorder.* This disorder is indicated by a period of 6 months or more when an individual feels excessively worried or anxious about more than one thing, more days than not, and has difficulty controlling worries. Common symptoms include being keyed up or on edge, irritability, restlessness, trouble falling asleep, tiring easily, difficulty concentrating, and tense or aching muscles. Participants were classified as having generalized anxiety disorder if they met full diagnostic criteria based on the CIDI-SF (0 = *no*, 1 = *yes*).

*Major depressive disorder.* This particular disorder is indicated by feelings of depression or anhedonia in the past year that lasted for 2 weeks or more, and if so, whether the symptoms lasted for most of the day and occurred every day of the 2-week period. If the respondent answered yes to those questions, they were probed regarding loss of interest, fatigue, change in weight, trouble sleeping, trouble concentrating, feelings of worthlessness, and thoughts about death. In this study, participants were classified as having major depressive disorder if they endorsed the screening items and three or more depressive symptoms (0 = *no*, 1 = *yes*).

*Alcohol use.* Respondents were asked the following question to assess alcohol use: "How frequently you drink alcoholic beverages? By a 'drink' we mean either a bottle of beer, a wine cooler, a glass of wine, a shot of liquor, or a mixed drink. With these definitions in mind, what is the largest number of drinks you have had in any single day during the past 12 months?" The response options were as follows: *none*, *between 1 and 3*, *4 to 10*, *11 to 20*, or *more than 20 drinks in a single day*. For the analyses we report in this study, alcohol use was coded as an ordinal variable (0 = *no drinks consumed in the past 12 months*, 1 = *1-3 drinks consumed in any single day during the past 12*

months, or 2 = 4 or more drinks consumed in any single day during the past 12 months).

We use this variable for several reasons. Only 2.4% of the men in this study met the *DSM-III-R* criteria for alcohol use dependence, which is based on having had 4 drinks or more in one day, in addition to indicating “yes” to 3 out of 7 symptoms measuring role interference, use of alcohol in hazardous situations, emotional and psychological problems as a result of alcohol use, and so forth. Although less stringent than the *DSM-III-R* diagnostic criteria, the variable utilized in this study allows us to examine potential differences in parenting behaviors as a function of *no-*, *moderate-*, or *heavy-drinking* days. Furthermore, this measure of alcohol use approximates the levels of heavy drinking days as defined by the National Institute on Alcohol and Alcoholism (NIAAA). Specifically, for men, a heavy-drinking day is considered 5 or more drinks in a single day, and for women it is 4 or more drinks in a single day (NIAAA, 2005). This measure is considered important given the adverse consequences associated with heavy drinking.

**Drug use.** Respondents were classified as using drugs on the basis of their response to the following question: “The next questions are about your use of drugs on your own. By ‘on your own,’ we mean either without a doctor’s prescription, in larger amounts than prescribed, or for a longer period than prescribed. With this definition in mind, did you use any of these drugs on your own during the past 12 months?” Following was a comprehensive list of drugs, including sedatives, tranquilizers, amphetamines, analgesics, inhalants, marijuana, cocaine, LSD, and heroin. Only 1.78% of the men in this study met the *DSM-III-R* criteria for drug dependence, which is determined on the basis of whether the participant used one or more of the drugs in the list and the presence of at least 3 of 7 symptoms of *DSM-III-R* dependence, including role interference, use of alcohol in hazardous situations, emotional and psychological problems as a result of alcohol use, and so forth. Due to the low prevalence of drug dependence, we opted to use a more liberal variable assessing any drug use in the past 12 months (0 = *no*, 1 = *yes*).

### **Dependent Measure: CP**

CP questions were asked of married and cohabiting fathers, as well as non-residential fathers who indicated that they had seen the child more than once in the last 30 days. CP was assessed on the basis of fathers’ responses to the following two questions: “Sometimes children behave pretty well and sometimes they don’t. In the past month, have you spanked (child) because (he/she) was misbehaving or acting up?” (1 = *no*, 2 = *yes*). If the father

indicated he had spanked the child in the past month, he was subsequently asked, "Did you do this (1 = *every day or nearly every day*, 2 = *a few times a week*, 3 = *a few times this past month*, or 4 = *only once or twice*)?" We created a three-level variable measuring paternal CP (No CP = *never in the past month*; Moderate CP = *only once or twice*; Heavy CP = *a few times to every day or nearly every day this past month*). These coding criteria were used for several reasons. The variable as operationalized here made the most sense, on the basis of distribution of the CP variable in this sample, because the variable was skewed toward "less spanking," with the distribution thinning out as the frequency of CP increases. Furthermore, it allows us to maintain consistency and make comparisons with other published studies (C. A. Taylor, Guterma et al., 2009) that used the same coding procedure.

### *Analysis Plan*

Table 1 presents sample characteristics and bivariate results for study variables. One-way analyses of variance (ANOVA) and chi-square tests were conducted to examine differences on study variables as a function of level of CP (No CP, Moderate CP, Heavy CP). Table 2 presents adjusted odds ratios and 95% confidence intervals for the multinomial regression results examining paternal factors that were associated with use of CP, after accounting for a comprehensive set of control and background characteristics of the father and child.

## **Results**

### *Univariate and Bivariate Summaries*

Overall, 61% of the fathers reported no CP, 23% reported moderate CP, and 16% reported heavy CP. ANOVA and chi-square tests revealed that, among the psychosocial variables of central focus in the current study, higher levels of paternal parenting stress, greater involvement with the child, major depressive disorder, alcohol use, and any drug use in the past year were all associated with greater use of CP (Table 1).

### *Multivariate Associations*

*Paternal sociodemographic characteristics.* The No-CP group was the reference group for these analyses (Table 2). The overall multinomial regression model exhibited a good fit with the data (LR  $\lambda_2(44) = 231.81$ ,  $p < .001$ ,



**Table 1.** Sample Characteristics and Bivariate Results ( $N = 2,309$ )

	Full-sample % or $M$ ( $SD$ )	No CP	Moderate CP	Heavy CP
<b>Paternal sociodemographics</b>				
Age at child's birth (range: 15-67)	28.04 (7.22)	28.29	27.80	27.44
Father marital status*				
Married	42%	39%	46%	50%
Cohabiting	30%	29%	31%	33%
Not married or cohabiting	28%	33%	22%	17%
Father race/ethnicity*				
White	22%	22%	20%	28%
African American	47%	45%	50%	48%
Hispanic	27%	28%	26%	21%
Other race	4%	5%	4%	3%
Father education*				
Less than high school	29%	31%	27%	23%
High school or equivalent	35%	34%	36%	39%
Some college or tech school	24%	21%	29%	26%
College or higher	12%	14%	9%	11%
Household income <sup>c</sup> (range: 0-\$500,000)	\$46,061 (\$44,621)	\$46,724	\$45,836	\$43,913
<b>Child characteristics</b>				
Child sex*				
Male	52%	49%	56%	60%
Female	48%	51%	44%	40%
Low birth weight	9% yes	9%	10%	9%
General health (range: 1-4)	3.52 (0.73)	3.51	3.53	3.56
CBCL Externalizing (range: 0-37) <sup>d</sup>	11.61 (6.71)	11.10 <sup>a,b</sup>	12.49 <sup>a</sup>	12.32 <sup>b</sup>
CBCL Internalizing (range: 0-26) <sup>d</sup>	5.40 (3.98)	5.39	5.54	5.26
<b>Paternal psychosocial characteristics</b>				
Parenting stress (range: 1-4) <sup>d</sup>	2.08 (0.67)	2.03 <sup>a</sup>	2.11 <sup>b</sup>	2.21 <sup>a,b</sup>
Involvement with child (range: 0-7) <sup>d</sup>	4.16 (1.35)	4.08 <sup>a,b</sup>	4.25 <sup>a</sup>	4.31 <sup>b</sup>
Generalized anxiety disorder (GID)	3% yes	3%	3%	2%
Major depressive disorder (MDD)*	12% yes	11%	13%	16%
<b>Alcohol use<sup>***</sup></b>				
No alcohol use in past year	31%	33%	26%	29%
1 to 3 drinks in one day in past year	40%	41%	41%	35%
4+ drinks in one day in past year	29%	26%	33%	36%
Any drug use in past year <sup>**</sup>	11% yes	10%	12%	15%

Note: CP = corporal punishment; No CP = never in the past month; Moderate CP = only once or twice this past month; Heavy CP = a few times this past month to every day or nearly every day this past month; CIDI = Composite International Diagnostic Interview—Short Form; CBCL = Child Behavior Checklist. Column percentages may not equal 100% due to rounding.  $\chi^2$  test significant results are denoted \* $p < .05$ . a. and b. One-way ANOVA (analysis of variance) significant differences ( $p < .05$ ) between cell pairs are denoted by letter superscript pairs, from Bonferroni-adjusted post hoc comparisons. c. Four cases with extremely high incomes  $> \$500,000$  were dropped from descriptive analyses. d. Higher scores indicate higher levels of the construct.

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

**Table 2.** Multinomial Regression Results: Paternal Psychosocial Characteristics and Use of Corporal Punishment Toward 3-Year-Old Children

	Moderate CP		Heavy CP	
	AOR	95% CI	AOR	95% CI
<b>Paternal sociodemographics</b>				
Age at child's birth	0.99	0.97-1.00	0.97**	0.95-0.99
Father marital status <sup>a</sup>				
Cohabiting	0.75*	0.57-0.98	0.72*	0.53-0.98
Not married or cohabiting	0.41***	0.30-0.56	0.26***	0.18-0.38
Father race/ethnicity <sup>b</sup>				
African American	1.63**	1.19-2.23	1.17	0.83-1.65
Hispanic	1.12	0.80-1.56	0.68*	0.46-0.99
Other race	1.31	0.74-2.32	0.71	0.36-1.43
Father education <sup>c</sup>				
High school or equivalent	1.26	0.96-1.65	1.64**	1.19-2.27
Some college or tech school	1.61**	1.18-2.19	1.74**	1.20-2.53
College or higher	0.68	0.43-1.07	0.85	0.51-1.42
Household income	1.06	0.97-1.16	1.03	0.93-1.13
<b>Child characteristics</b>				
Child sex: Girl <sup>d</sup>	0.73**	0.59-0.90	0.61***	0.48-0.78
Low birth weight	1.32	0.92-1.88	1.17	0.76-1.80
General health	1.00	0.87-1.16	1.05	0.88-1.25
CBCL Externalizing	2.05***	1.45-2.92	1.99***	1.32-3.00
CBCL Internalizing	0.74	0.44-1.24	0.67	0.37-1.23
<b>Paternal psychosocial characteristics</b>				
Parenting stress	1.22*	1.04-1.43	1.53***	1.27-1.84
Involvement with child	1.03	0.95-1.13	1.02	0.92-1.13
Generalized anxiety disorder (GAD)	0.78	0.39-1.55	0.71	0.32-1.58
Major depressive disorder (MDD)	1.31	0.93-1.84	1.53*	1.06-2.21
<b>Alcohol use<sup>e</sup></b>				
1 to 3 drinks in one day in past year	1.16	0.89-1.49	0.91	0.68-1.23
4+ drinks in one day in past year	1.57**	1.18-2.08	1.40*	1.02-1.93
Any drug use in past year	1.10	0.78-1.55	1.49*	1.03-2.15
LR $\chi^2(44) = 231.81$ ***; pseudo $R^2 = .06$				

Note: AOR = adjusted odds ratio; CI = confidence interval; CIDI = Composite International Diagnostic Interview—Short Form; CBCL = Child Behavior Checklist; CP = corporal punishment; Moderate CP = only once or twice this past month; Heavy CP = a few times this past month to every day or nearly every day this past month. Number of participants studied,  $n = 2,260$ . Nonspankers were the reference group in all analyses.

a. Reference group is married.

b. Reference group is White.

c. Reference group is less than high school.

d. Reference group is boy.

e. Reference group is no alcohol consumption in the past year.

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

pseudo  $R^2 = .06$ ). Younger fathers were more likely to engage in heavy CP than older fathers. Cohabiting fathers and fathers who were not married or cohabiting with the child's mother were less likely to report CP than fathers who were married, even after controlling for level of child involvement. Compared to White fathers, being African American was associated with higher levels of moderate CP and being Hispanic was associated with lower levels of heavy CP. With regard to paternal education, fathers with more moderate levels of education (high school degree or equivalent, some college or tech school) were generally more likely to engage in CP compared to fathers with less than a high school degree. There was no significant difference in use of CP between fathers with less than a high school degree and fathers with college degree or higher.

*Child characteristics.* Girls were much less likely to be the recipient of paternal CP than boys, especially heavy CP. As indicated in Table 1, 60% of heavy spankers had male children. Child externalizing behavior was also associated with higher levels of CP.

*Paternal psychosocial characteristics.* Paternal stress was linked to both moderate and heavy use of CP. Although higher levels of child involvement were significantly associated with greater use of CP at the bivariate level, involvement was not significantly associated with greater use of paternal CP in the fully controlled regression models. Major depressive disorder and any drug use in the past year were associated with heavy CP use but not significantly associated with moderate CP use. Alcohol use—specifically, having 4 or more drinks in 1 day in the past year, compared to no alcohol use—was associated with both moderate and heavy CP. However, consumption of 1 to 3 drinks in one day in the past year was not associated with greater use of CP. Generalized anxiety disorder was not associated with CP. Various interaction effects were probed, but none were statistically significant. For example, we tested the interaction between major depression and alcohol/drug use and the interaction between generalized anxiety and alcohol/drug use, and we did not find significant interaction effects between the substance use and mental health problem categories.

## Discussion

To our knowledge, this is the first study that documents significant associations with paternal stress, drug/alcohol use, and paternal CP, while simultaneously accounting for paternal mental health, sociodemographic characteristics, and father involvement with the child, as well as the child's

existing level of internalizing and externalizing behavior problems. In addition, this study makes use of self-reported data from fathers who participated in a large, diverse, community-based sample and contributes to an underdeveloped area of research examining the role of fathers in physical child discipline.

We found that fathers with a high school degree or equivalent engaged in more heavy CP than fathers without a high school degree. Also, some college or tech school was associated with being in the moderate and heavy CP categories. Though it is somewhat counterintuitive that fathers with more than a high school degree use more CP, these findings are not without precedent when examining results from several FFCWS studies. For example, when examining only paternal risk factors (as in the current study), higher levels of paternal education were associated with more spanking but not other forms of physical and psychological aggression (Lee et al., 2008). This pattern was concentrated only among Hispanic fathers, with nonsignificant findings for education among White and African American fathers. It may be that if we were to examine the race and ethnic differences more carefully (which was not the goal of this article) we may find that the positive association between higher education and CP would again be concentrated among Hispanic fathers. Though it is problematic to attribute a great deal of importance to this isolated finding, and it is also difficult to fully explain these findings in light of the limitations of the FFCWS study, we have speculated that better educated Hispanic fathers may more actively engage in child discipline. Furthermore, although there is limited empirical information about Hispanic fathers and child discipline, past research indicates that Hispanic fathers endorse or engage in fewer harsh parenting practices. It may be that more educated fathers are more acculturated and, therefore, more likely to adapt to cultural beliefs normalizing CP.

When examining paternal influence on maternal harsh parenting, fathers' higher education is associated with lowered likelihood of maternal CP (Guterman, Lee, Lee, Waldfogel, & Rathouz, 2009; C. A. Taylor, Lee, Guterman, & Rice, 2010). Father education was not significantly associated with use of CP. To summarize across these studies, it appears that father education is not consistently or strongly linked with his own harsh parenting (with the possible exception of Hispanic fathers), but father higher education is associated with mothers' decreased use of CP.

In contrast to some prior theorizing, we have failed to find that fathers' income or employment status is associated with harsh parenting or CP

(Guterman et al., 2009; Lee et al., 2008; C. A. Taylor, Lee et al., 2010). At least one other study using a community sample, individual socioeconomic factors were not related to onset of child maltreatment (Chaffin, Kelleher, & Hollenberg, 1996). Significant effects for paternal unemployment and income often come from studies of families at risk or indicated for abuse (e.g., Coohy, 2006). It may be that when focusing on at-risk families, low income in combination with other factors increases risk for abuse, whereas when examining community samples with proper controls for variables that are potentially confounded with income and employment (e.g., parenting stress, education, marital status), the link between paternal earnings and employment may not be as strong as previously thought.

Results show that paternal stress, heavy alcohol use, and any drug use are associated with fathers' increased use of CP, findings that are consistent with the existing research on mothers (Miller et al., 1999) and perhaps not surprising, given the associations between impulsive behavior, parental stress, and substance use disorders (Moeller, Barrett, Dougherty, Schmitz, & Swann, 2001). Although prior research shows that generalized anxiety disorder and depression can impair one's ability to effectively cope with life stressors (S. E. Taylor & Stanton, 2007), major depression was only significantly associated with heavy CP, and generalized anxiety disorder was not associated with any of the CP outcomes. We surmise that these conditions may primarily have an indirect influence on use of CP through their links to increased levels of parental stress, a question that should be examined in future research using path analytic approaches. Furthermore, it is important to keep in mind the very low numbers of fathers who had either of these disorders, with only 3% of fathers reporting generalized anxiety disorder and 12% reporting major depressive disorder.

The current study extends prior research by showing that, although African American fathers were significantly more likely than White fathers to engage in moderate CP, they were not more likely than White fathers to engage in heavy CP. In contrast, Hispanic fathers were significantly less likely to engage in heavy CP than White fathers, an important finding, given the limited research available on Hispanic fathers and their parenting practices. Results point to modifiable mechanisms that are linked to CP, that is, paternal stress and alcohol/drug use, which are factors amenable to change through evidence-based interventions and parenting education.

Our results also underscore the transactional nature of the parent-child relationship. We found that boys were more likely to experience paternal CP than girls (Gershoff, 2002) and that child externalizing behavior was

associated with greater use of paternal CP. In other analyses by this research team we have found that maternal CP is predictive of childhood behavioral problems (C. A. Taylor, Manganello, Lee, & Rice, 2010). Although in the current analyses we cannot discern the direction of the effects, it may be that there is a similar pathway for fathers, pointing to the need for early intervention with parents, especially those with high levels of stress and substance use.

### *Limitations and Future Directions*

These findings must to be considered in context of the study limitations. The FFCWS recruited families from large urban areas (Reichman et al., 2001), and the men included in the current analyses are all biological fathers. Therefore, results may not generalize to nonbiological male caregivers or fathers living in nonurban areas. The cross-sectional nature of the analysis does not allow for causal inference. Common to all studies using secondary data, there are limitations with respect to measurement. For example, the categorical measure of CP did not allow us to examine the severity of CP used by fathers in this study.

Despite these limitations, this study has a number of strengths and provides important directions for future research on the role of fathers in child maltreatment. The FFCWS is a socioeconomically diverse community study that provides the opportunity for prospective analysis of multiple complex factors that foreshadow risk for child maltreatment. Results point to the need for greater understanding regarding the complex role of young paternal age, paternal education, and marital status. Furthermore, results suggest that future studies should examine the role of major depressive disorder as a potential mediator in the relationship between parenting stress and greater use of CP.

Our findings document the importance of parenting stress and alcohol and drug use above and beyond the influence of psychiatric disorders, however, it is important to note the low prevalence of these disorders in the FFCWS. Results suggesting fruitful avenues for intervention may include parenting programs and treatment that target fathers' use of alcohol and drugs, as well as their levels of parenting stress. Better understanding potential points of intervention is especially important, given prior research from substance use treatment programs revealing a high rate of unmet family-related services needs (Perron, Ilgen, Hasche, & Howard, 2008) and

the need for greater inclusion of fathers in parenting services (Lee, Bellamy, & Guterman, 2009).

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## Bios

**Shawna J. Lee** is an assistant professor at the School of Social Work and faculty affiliate of the Merrill-Palmer Skillman Institute for Child and Family Development at Wayne State University. She graduated from the University of Michigan joint doctoral program in social work and psychology in August 2005 and completed her postdoctoral training at the Columbia University School of Social Work. Her research focuses on the role of fathers in the etiology of physical child abuse. She is corecipient of a grant from the Centers for Disease Control and Prevention to fund research using data from the FFCWS to examine risk and resilience factors that are related to fathers' physical and psychological aggression and corporal punishment directed toward their children. Dr. Lee serves on the editorial board of the journal *Child Maltreatment*.

**Brian E. Perron** completed his PhD at Washington University in 2007 and later joined the faculty at the University of Michigan, School of Social Work. Previously, he worked as a clinical social worker in community mental health, providing services to persons with serious mental illnesses and substance use disorders. His research focuses on issues related to the quality of care for persons with mental illnesses and substance use disorders. He is involved in a variety of research activities, including analysis of nationally representative data and clinic-based surveys and collaborating on field-based interventions. He is also interested in innovative research methodologies and provides statistical consultation for a number of projects.

**Catherine A. Taylor** is an assistant professor in the department of community health sciences at the Tulane University School of Public Health and Tropical Medicine. She

has a BA in biology from Cornell University; an MSW and MPH from Boston University Schools of Social Work and Public Health, respectively; and a PhD in public health from the University of California Los Angeles, department of community health sciences. She was a postdoctoral research scholar at the Columbia University School of Social Work. She is currently a coinvestigator on two evaluations of community-based parenting interventions designed to prevent or reduce child maltreatment, and one secondary data analysis project that uses data from the Fragile Families and Child Well-Being Study to investigate psychosocial and community factors that may be associated with child maltreatment. She is the PI of an NICHD funded project entitled "Prevention of child maltreatment: A focus on social norms and corporal punishment."

**Neil B. Guterman**, PhD, MSW, is the Mose and Sylvia Firestone professor at the School of Social Service Administration and faculty associate at the Chapin Hall Center for Children, both at the University of Chicago. He currently serves as the principal or coprincipal investigator for a number of federally and privately funded studies concerning child abuse and its prevention. He is the author of numerous scientific and professional publications in the field, including *Stopping Child Maltreatment Before It Starts: Emerging Horizons in Early Home Visitation Services* (Sage, 2001) and a forthcoming reference work, *Child Maltreatment Prevention* (with Randell and Sandra Alexander, G. W. Medical Publishers). As a noted authority on child abuse prevention, he has served on national and local advisory boards and provided collaborative expertise and consultation to federal, state, and local governmental bodies, foundations, national and international advocacy organizations, community-based agencies, and legal firms. He also consults as an editor to a number of scholarly journals in the field, including *Child Abuse and Neglect*, *Social Work*, *Social Service Review*, *Pediatrics*, *American Journal of Public Health*, and he serves on the editorial board of *Child Maltreatment*.