
Relations of Parental Report and Observation of Parenting to Maltreatment History

David S. Bennett

Drexel University College of Medicine

Margaret Wolan Sullivan

Michael Lewis

Robert Wood Johnson Medical School

Parenting assessments (the Parent-Child Conflict Tactics Scale, CTSPC; and a mother-child observation) were examined for their ability to identify mothers with a history of physically abusing or neglecting their child. Participants were mothers of 139 children (age 3 to 6 years; 58 with a history of maltreatment). Mothers with a history of maltreatment reported higher scores on the Neglect, Nonviolent Discipline, and Psychological Aggression subscales of the CTSPC. These group differences, however, were limited to mothers who acknowledged a history of maltreatment, as mothers who concealed their maltreatment history rated themselves similar to controls. Observation of parental behaviors during a brief, nonstressful task did not discriminate mothers who maltreated from mothers who did not maltreat. The findings suggest that parental report using the CTSPC may be useful in assessing parenting behaviors among mothers with a history of maltreatment, although socially desirable responding is a significant problem.

Keywords: *assessment; parenting; physical abuse; neglect*

Assessment of parenting is critical in making decisions regarding referrals to intervention programs, planning for child safety, recommendations for family reunification, and resolution of custody disputes (Haskett, Scott, & Fann, 1995); however, there is currently little agreement on how to best assess parenting behaviors (Locke & Prinz, 2002). It is generally agreed that legal definitions of *maltreatment* are inadequate

and serve to identify only the most severe or chronic cases (Becker et al., 1995; English, 1999; National Research Council, 1993). Several tools have been developed to assess more objectively and systematically the range of behaviors that may index abuse and neglect. These include measures of physical punitiveness (Milner, 1986; Straus & Hamby, 1997) and psychological maltreatment (Brassard, Hart, & Hardy, 1993). Yet the ability of such measures to identify parents who are prone to maltreatment remains understudied. Comparison of self-report scales' relation to currently observed parenting has been limited, and no single assessment has attained widespread acceptance in clinical practice or research.

The identification and assessment of parents who maltreat their children is particularly challenging among families of young children. Preschool-age children are more vulnerable to suggestion (Bruck & Ceci, 1999), and their self-reports are less consistent than those of older children (Ghetti, Goodman, Eisen, Qin, & Davis, 2002), leading evaluators to search for additional and more reliable sources of assessment information. Parental self-report is often

Authors' Note: We gratefully acknowledge the assistance of the Philadelphia Department of Human Services and the New Jersey Division of Youth and Family Services. This study was supported by Grant DA11153/MH56751 to Michael Lewis from the National Institute of Mental Health and the National Institute on Drug Abuse, and by Grant MH64473 to Michael Lewis from the National Institute of Mental Health. An earlier report of this data was presented at the Federal Child Neglect Research Consortium Meeting (January, 2004) in Bethesda, MD. Correspondence should be directed to David Bennett, 4641 Roosevelt Boulevard, Philadelphia, PA, 19124; e-mail: david.bennett@drexelmed.edu

relied on by clinicians in evaluation and treatment settings and by caseworkers conducting investigations or ongoing family monitoring despite the limited evidence of its utility or validity. Parental report is potentially biased in that parents may present in a socially desirable manner (Miller-Perrin & Perrin, 1999). Parents may try to minimize negative behaviors (“fake good”) or, less frequently, exaggerate their problems (“fake bad”; Milner & Crouch, 1997). Some recent parenting scales attempt to control for or otherwise take this tendency into account.

The Parent-Child Conflict Tactics Scale (CTSPC; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998), along with its predecessor the Conflict Tactics Scale (CTS; Straus, 1979), is one of the most commonly used self-report measures of abusive and neglectful parenting behaviors (Straus & Hamby, 1997). The CTSPC offers several potential advantages in the assessment of maltreatment. First, the CTSPC uses explicit behavioral criteria that are less open to interpretation than are definitions of neglect and physical abuse used by various child protective service (CPS) agencies (Straus & Hamby, 1997). Second, the CTSPC attempts to minimize socially desirable responding by beginning with socially desirable items and randomizing subsequent items as to their level of harshness or inappropriateness. Third, the CTSPC is unusual in that it contains a brief subscale that also screens for neglectful parenting. Finally, and perhaps most important, the CTSPC focuses on the frequency of parenting behaviors rather than on the harmful consequences to the child (e.g., injuries, malnourishment), which parents might be particularly unlikely to endorse.

The construct validity of the CTSPC and/or CTS is demonstrated by its relations to Child Abuse Potential Inventory scores (Caliso & Milner, 1992), measures of stress (Straus & Kaufman Kantor, 1987), and to increased rates of child externalizing and internalizing problems (Hotelling, Straus, & Lincoln, 1989; Jouriles & Norwood, 1995; Miller, Downs, & Gondoli, 1989; O’Keefe, 1994). Yet no prior study appears to have examined whether the CTSPC (or CTS) discriminates parents with a known history of maltreatment from community controls without a history of maltreatment. Women who reported being physically abused as children did rate their parents as having used elevated levels of verbal abuse and violent discipline on the CTS (Caliso & Milner, 1992); however, these findings are limited by the use of retrospective reports unsupported by external verification of maltreatment. Discriminant validity must be established if the CTSPC is to be used to assess or screen in clinical

settings parents with versus without a history of maltreatment.

Observation of parenting behavior is an alternative method that can be used to augment self-report assessments. Parenting observations offer the advantage of recording overt behavior, which may be less open to differing interpretations than are items on a self-report (Gardner, 2000). Mothers with a history of maltreatment have been found repeatedly to exhibit low levels of positive behavior toward and involvement with their child during observations (Alessandri, 1992; Aragona & Eyberg, 1981; Bousha & Twentyman, 1984; Burgess & Conger, 1978; Dadds, Mullins, McAllister, & Atkinson, 2003; Kavanagh, Youngblade, Reid, & Fagot, 1988; Schindler & Arkowitz, 1986). Observational studies of mothers who maltreat their children also find elevated use of critical statements and controlling or coercive parental behavior (Aragona & Eyberg, 1981; Burgess & Conger, 1978; Cerezo, D’Ocon, & Dolz, 1996; Dolz, Cerezo, & Milner, 1997; Mash, Johnston, & Kovitz, 1983; Timmer, Borrego, & Urquiza, 2002; Whipple & Webster-Stratton, 1991). Collectively, these studies indicate the importance of assessing positive and negative parenting behaviors during observations. However, like self-report, observation may be affected by socially desirable responding.

The extent to which “faking good,” either in response to self-report or observational assessment, exists among parents with histories of child maltreatment is largely unknown. One estimate suggests that 21% of parents with a “definite” or “very highly probable” history of abuse completely deny (and 47% to partially deny) allegations of abuse when interviewed by CPS staff (Lanyon, Dannenbaum, & Brown, 1991). Such denials are not surprising given that the interview was part of a CPS investigation. The prevalence of parents’ concealment of maltreatment, however, is unknown outside this context. Given the potential importance of such concealment on clinical assessment, the current study also examined the prevalence and potential impact of concealment in a group of mothers with a history of documented maltreatment.

In addition to social desirability, parental attributions for child behavior may affect whether parents acknowledge maltreatment. Mothers who are abusive, for example, have been found to perceive children to be more responsible for their misbehavior and, perhaps as a consequence, to endorse harsher punishment (Graham, Weiner, Cobb, & Henderson, 2001). Thus, parents who are maltreating their children and who blame difficult interactions with their child on the child (i.e., externalize blame) may be

more likely to believe the harsh parenting is justified, and to dismiss or otherwise conceal the abusive parenting. In contrast, mothers who blame themselves or their own parenting for difficult interactions with their child may be more accepting of their role in the maltreatment and, consequently, more likely to acknowledge their use of harsh or inappropriate parenting. Accordingly, we would expect Concealers (mothers who do not report their maltreatment history) to make attributions for negative interactions with their child that are more child based and less parent based than the attributions of those who acknowledge a history of CPS involvement. We would expect this attribution style to be most evident for stressful mother-child interactions (e.g., when the parent has difficulty teaching the child something) than in the context of positive mother-child interactions (e.g., when the child has an easy time learning). Thus, external (child blaming) attributions are likely to be consistent with the tendency to conceal a CPS history and to present in a more socially desirable manner.

Child sex also needs to be considered when examining harsh and neglectful parenting. Prior research with samples who are not maltreated has at times found sex differences in discipline techniques. Generally, boys receive more physical discipline, but not necessarily more psychological aggression from parents than do girls (Giles-Sims, Straus, & Sugarman, 1995; Lytton & Romney, 1991; Straus & Field, 2003; Straus & Stewart, 1999). These modest, inconsistent sex effects may be more evident among samples who are maltreated.

The purpose of the current study was to examine whether mothers with a CPS history of maltreatment differ from community controls on either a standardized self-report (i.e., the CTSPC) or on a brief, non-stressful parenting observation. Mothers with a maltreatment history were hypothesized to score higher on each of the CTSPC subscales and to exhibit less positive and more negative behavior toward their child during the observed mother-child interaction. Second, the question of whether these two distinct assessment methods, self-report and observation, could be combined to improve identification of mothers with a history of maltreatment from controls was examined. The relation between self-ratings and observations of parenting is generally modest; and, therefore, unique information may be provided by each source (Gardner, 2000). Third, the current study sought to examine the prevalence of socially desirable responding and behavior by comparing mothers' response to an interview question ("Have you or your partner ever been referred to Child Protective Services for family services?") against CPS records.

Responses allowed us to test the hypothesis that mothers who concealed their history of maltreatment (i.e., CPS involvement) also would report less use of inappropriate discipline and would exhibit less negative parenting behavior during an observation than mothers who acknowledged their history of maltreatment. Finally, parental attributions were examined to determine whether they differed between mothers who acknowledged or failed to report a history of maltreating their child. We hypothesized that mothers who attribute difficult interactions with their child to their child as opposed to their own parenting are more likely to conceal a history of child maltreatment, consistent with a "child blaming" schemata.

METHOD

Sample

Subjects were mothers of 139 children (76 boys, 63 girls; ages 3 to 6 years; $M = 5.0$, $SD = .8$) who contacted the research program in response to flyers posted in publicly funded preschool or therapeutic programs known to include children referred by CPS. A record review indicated that mothers of 58 children (42%) had a history of one or more substantiated incidents of maltreatment, with 27 having a history of neglect, 19 a history of physical abuse, and 12 a history of neglect and physical abuse. Mothers with unsubstantiated allegations ($n = 7$ of the initial 146 mothers) were excluded from all data analyses. Mothers' ethnicity was as follows: 65% African American, 19% White, 12% Latino, and 4% other minorities. Children with a substantiated history of sexual abuse and children with known histories of mental retardation or significant physical disabilities were excluded from the current study. Before enrolling, mothers were informed that this was a study of emotional development among children with histories of neglect or physical abuse; mothers signed consents permitting the research team to review CPS records for neglect and abuse allegations involving their child and were told they would be asked about any CPS investigation. The current study was approved by Institutional Review Boards at the University of Medicine and Dentistry of New Jersey and at MCP Hahnemann University (now Drexel University College of Medicine).

Procedure

Mothers completed a brief demographic interview, the CTSPC (Straus et al., 1998) and the Parent Attribution Checklist (Melson, Ladd, & Hsu, 1993), both of which were administered as interviews because of poor reading skills among some mothers.

TABLE 1: Factor Structure of Observed Parenting Ratings

Rating	Factor Loadings	
	1	2
Positive parenting		
1. Mother provides specific, concrete feedback when child errs.	.74	.12
2. Mother accurately describes behavior in global manner when child succeeds.	.69	-.09
3. Mother is warm and supportive when child struggles or has difficulty.	.65	.04
4. Mother expresses pride when child is successful.	.55	-.29
5. Mother accurately describes behavior in specific manner when child succeeds.	.53	.02
6. Mother expresses confidence in child when child struggles or questions ability.	.45	-.08
Negative parenting		
7. Mother allows child to take the lead.	.09	-.73
8. Mother expresses anger, annoyance, frustration.	.02	.65
9. Mother physically controls or restrains child.	.09	.59
10. Child is successful in meeting parent's direction; no need for constant correction.	.07	-.53
11. Mother is highly intrusive and controlling.	-.01	.51
12. Mother shames child, expresses contempt, humiliation, disgust	-.13	.40

NOTE: Items 7 and 10 were reverse scored when summed for the Negative Parenting composite.

Mothers then participated in two teaching tasks with their child. A female research assistant conducted the procedures at the child's preschool or at the research program's office in a room used for this purpose. Mothers received U.S. \$15 for participating.

Measures

Observation of parental behavior during a teaching task. Observation-based measures of mothers' parenting behavior were obtained during teaching tasks as such tasks have been found to discriminate parents who are maltreating from nonmaltreating (e.g., Alessandri, 1992; Burgess & Conger, 1978; Deitrich-MacLean & Walden, 1988). In the current tasks, modeled after the brief problem-solving tasks used by Alessandri (1992), the mother and child were given 5 minutes to acclimate to the setting. Mother and child were then seated at a table and asked to look at a structure made of 26 colored wooden blocks. The examiner stated "We want you to make your set of blocks look like this one" and told the mother that the child "will need your help with the colors, the number of blocks and the shape. I want you to help him or her do the model exactly like this one. But don't do it for him or her: teach him or her how to do it the same as the model." She then left the mother and child alone to complete the block structure. After this, a second task was presented. Here, the examiner gave the mother and child a disassembled 20-piece puzzle and a picture of the completed puzzle. She stated that the child "will need your help, just like before. I want you to help him or her do the puzzle exactly like in the picture, but don't do it for him or her, teach him or her how to get it the same as the picture." Collectively, the block

structure and puzzle tasks were videotaped for 20 minutes.

Coders who were blind to CPS status coded 12 different parenting behaviors from videotape using a 5-point scale (ranging from 1 = *never observed* to 5 = *almost always observed*). The behaviors selected for coding were drawn from a review of studies showing significant differences in maternal interaction between controls and maltreating mothers (Alessandri, 1992; Herrenkohl, Herrenkohl, Rupert, Egolf, & Lutz, 1995; King, Rogers, Walters, & Oldershaw, 1994; Oldershaw, Walters, & Hall, 1989; Tuteur, Ewigman, Peterson, & Hosokawa, 1995). Behaviors selected for scoring based on the above studies included warmth, encouragement of the child, negative feedback, intrusiveness, and physical control of the child (see Table 1 for the complete list). Principal components analysis with oblique rotation was conducted on the dimensions and yielded a two-factor solution explaining 36.3% of the variance. Although four factors had eigenvalues greater than 1.00, scree plot analysis and interpretability favored a two-factor solution with factors labeled as Positive Parenting (19.1% of variance explained) and Negative Parenting (17.3%). Coders were three bachelor's-level college graduates who were full-time members of the research staff. They were trained to criterion (i.e., 80% or higher within 1 point), averaged over 10 tapes drawn at random from the study. Disagreements were discussed and resolved by consensus with a Ph.D.-level psychologist. Median intraclass correlation coefficients for interrater reliability, computed on 10% of the observations, were .78 (range: .61 to .94) for the Positive Parenting items and .93 (range: .50 to .98) for the Negative Parenting items. In addition to the factor scores, a negative

parenting proportion score was computed by dividing the Negative Parenting score by the total score (i.e., Negative plus Positive Parenting scores).

Parent-Child Conflict Tactics Scale (CTSPC). The CTSPC (Straus et al., 1998) is a revision of the parent-child version of the Conflict Tactics Scale (Straus, 1979). It contains four subscales: Neglect, Nonviolent Discipline, Physical Assault, and Psychological Aggression. The Physical Assault subscale ranges from relatively accepted forms of corporal discipline through highly aggressive parental behavior. Mothers are asked to endorse the frequency that they have used each method in the past year on a 7-point scale (0 = *never* to 6 = *more than 20 times*). Scores are summed for each subscale: Nonviolent Discipline (e.g., “explained why something was wrong,” “put him or her in time-out,” 4 items; Cronbach’s alpha = .68), Physical Assault (e.g., ranging from *spanked him or her on the bottom with your bare hand* through *threatened him or her with a knife or gun*; 13 items; alpha = .72), and Psychological Aggression (e.g., “shouted, yelled, or screamed at,” “called him or her dumb or lazy or some other name like that,” 5 items; alpha = .66). In addition, the Neglect subscale (e.g., “had to leave your child home alone, even when you thought some adult should be with him or her,” 5 items; alpha = .58) has 5 similarly rated items. Subscales were correlated as follows: Nonviolent Discipline was positively related to Physical Assault ($r = .31, p < .001$) and Psychological Aggression ($r = .42, p < .001$), but not to Neglect ($r = .11, ns$). Physical Assault was positively related to Psychological Aggression ($r = .64, p < .001$) and Neglect ($r = .31, p < .001$), and Psychological Aggression to Neglect ($r = .32, p < .001$).

Maternal concealment of maltreatment status. Concealment of CPS neglect and physical abuse status was assessed by asking mothers directly at the end of the demographic interview whether they or their partner had ever been referred to CPS (specific names of local agencies were used) for family services. Contact with the local CPS agencies are almost always made in relation to child maltreatment allegations, as other local agencies administer programs such as food stamps and housing assistance. Follow-up probes established that this was, in fact, the case. In addition, mothers also were asked separate, specific questions about these other social service programs, so it is highly unlikely that mothers with a history of maltreating their child would deny having had a history with CPS because they misinterpreted that the question was asking about social services. Mothers’ responses were later compared to the CPS database. Mothers who did not admit to a CPS history but who were found to have

a record of substantiated physical abuse or neglect were designated as Concealers.

Parent Attribution Checklist (PAC). The learning subscales of the PAC (Melson et al., 1993) were administered to assess maternal beliefs about their child’s behavior when they have a difficult time teaching their child something new, and when they have an easy time teaching their child. Specifically, the PAC asks mothers to endorse reasons for their child’s performance “when it is *difficult* for me to help my child learn” (24 items) and “when it is *easy* for me to help my child learn” (24 items). Mothers endorse an item *yes* if they believe the explanation applies to them (1 = yes, 0 = no). The “difficult” and “easy” learning experiences are divided into Parent Stable (e.g., “I don’t know the best way to teach these things”), Parent Unstable (e.g., “I sometimes find my patience wearing thin”), Child Stable (e.g., “My child usually has difficulty learning”), and Child Unstable (e.g., “My child sometimes doesn’t try hard enough”) attribution subscales. Because of our interest in examining parent versus child attributions of “blame,” we summed the Parent Stable and Parent Unstable scores into an overall Parent Blame score for the difficult (alpha = .81) and easy (alpha = .59) learning situations. Likewise, the Child Stable and Child Unstable scores were summed into overall Child Blame scores for the difficult (alpha = .76) and easy (alpha = .68) learning situations.

RESULTS

Demographics as a Function of Maltreatment Status

The first question examined was whether mothers with histories of maltreatment differed from controls on demographic variables (see Table 2). Mothers who were maltreating their children were, on average, about 2 years younger than those of controls, while children who were maltreated were a few months older than controls. Mothers who were maltreating their children had fewer years of schooling and lower occupational status (using the Watt, 1976, coding system) than controls. Subsequently, maternal age, child age, maternal education, and maternal occupation levels were used as covariates in analyses that compare mothers who maltreated their children and controls.

Self-Report of Discipline as a Function of Maltreatment Status

Self-report of parenting was examined as a function of maltreatment status (see Table 3). CTSPC

TABLE 2: Demographic Characteristics of Sample

	<i>Controls</i> (n = 81)	<i>Maltreatment</i> (n = 58)	t or χ^2 Value
Age: Child	4.9 (.8)	5.2 (.9)	$t(136) = 2.19^*$
Mother	31.7 (7.0)	29.6 (5.3)	$t(136) = 2.00^*$
Gender: Boys	47 (58%)	29 (50%)	$\chi^2(1) = .88$
Girls	34 (42%)	29 (50%)	
Ethnicity: African American or Latino	65 (82%)	41 (71%)	$\chi^2(1) = 2.57$
White or other	14 (18%)	17 (29%)	
Maternal education (years)	12.8 (2.6)	11.4 (2.0)	$t(136) = 3.82^{**}$
Maternal occupation ^a	2.8 (1.7)	1.8 (1.3)	$t(135) = 4.13^{**}$

NOTE: Standard deviations appear in parentheses following age, education, and occupation data.

a. Occupation was coded using a 6-point scale (1 = *unemployed*, 6 = *professional, or owner of a major business*; see Watt, 1976).

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

TABLE 3: Parenting Measures as a Function of Maltreatment Status (MANCOVAs, With Estimated Means and Standard Errors)

<i>Parenting Measure</i>	<i>Controls</i> n = 81 M (SD)	<i>Maltreatment</i> ^a n = 58 M (SD)	<i>Neglect</i> n = 27 M (SD)	<i>Abuse</i> n = 19 M (SD)	<i>Neglect and Abuse</i> n = 12 M (SD)
Self-reported discipline (CTSPC)					
Neglect	.2 (.2)	1.1 (.2)**	1.1 (.3)	.9 (.4)	1.4 (.5)
Nonviolent discipline	16.2 (.7)	18.6 (.8)*	18.1 (1.1)	18.9 (1.3)	18.6 (1.7)
Physical assault	6.4 (.8)	8.1 (.9)	7.6 (1.3)	8.5 (1.5)	7.9 (2.0)
Psychological aggression	8.6 (.7)	10.9 (.8)*	9.8 (1.1)	10.8 (1.3)	12.6 (1.7)
Observed parenting (teaching tasks)					
Positive parenting	2.2 (.1)	2.4 (.1)	2.3 (.1)	2.4 (.2)	2.4 (.2)
Negative parenting	1.8 (.1)	1.8 (.1)	1.9 (.1)	1.8 (.1)	1.9 (.2)
Proportion negative	.45 (.01)	.44 (.01)	.45 (.02)	.43 (.02)	.44 (.03)

NOTE: CTSPC = Parent-Child Conflict Tactics Scale.

a. *Maltreatment* refers to the sample of all mothers with a history of either neglect, physical abuse, or both. Asterisks denote significantly different scores between the Control and Maltreatment groups.

* $p \leq .05$. ** $p \leq .01$.

scores differed by maltreatment status and by sex, as mothers who had maltreated their children and mothers of boys reported higher CTSPC scores when a 2 (maltreatment status) \times 2 (child sex) MANCOVA using the four subscales as dependent variables was conducted. Multivariate maltreatment status, $F(4, 124) = 3.55$, $p < .01$, Wilks's lambda = .90, and sex, $F(4, 124) = 3.57$, $p < .01$, Wilks's lambda = .90, effects were found. There also was a trend for a Maltreatment \times Sex interaction, $F(4, 124) = 2.06$, $p < .10$, Wilks's lambda = .94, as maltreating mothers of boys reported the highest CTSPC scores.

Examining specific subscales, mothers who maltreated their children reported higher scores on the Neglect, Psychological Aggression, and Nonviolent Discipline subscales than did controls. Boys also received higher scores than girls on the Psychological Aggression, $F(1, 127) = 6.95$, $p < .01$, and Nonviolent Discipline, $F(1, 127) = 5.51$, $p < .05$, subscales. A Maltreatment \times Sex interaction was found on the Neglect subscale, as mothers who had maltreated their sons

received the highest neglect scores, $F(1, 127) = 4.29$, $p < .05$.

Table 3 also presents the estimated means for each CTSPC subscale as a function of the type of maltreatment. To compare mothers with a history of neglect, abuse, neglect and abuse, and controls, a 4 (maltreatment group) \times 2 (sex) MANCOVA was conducted. Maltreatment groups did not differ across the CTSPC subscales. However, there was a Maltreatment Group \times Sex Interaction, $F(12, 318) = 1.79$, $p < .05$, Wilks's lambda = .84, in part, because of a trend for mothers who were neglectful and mothers of boys who were neglectful and/or abusive to report higher Neglect scores than mothers of girls in these two groups, $F(3) = 2.13$, $p = .10$.

Observed Parenting as a Function of Maltreatment Status

Table 3 also examines group differences in observed parenting. Parenting observations did not differentiate mothers who had maltreated their children

TABLE 4: Parenting Measures as a Function of Maltreatment Status and Concealment of Status (MANCOVAs, With Estimated Means and Standard Errors)

Parenting measure	Controls n = 81	Maltreatment Acknowledged n = 41	Maltreatment Concealed n = 16	Univariate F Value
Self-reported discipline (CTSPC)				
Neglect	0.1 ^a (.2)	1.4 ^b (.3)	0.4 ^a (.4)	6.67***
Nonviolent discipline	16.3 (.6)	18.8 (.9)	17.7 (1.5)	2.31
Physical assault	6.4 ^a (.8)	9.3 ^b (1.0)	5.1 ^a (1.7)	3.38*
Psychological aggression	8.6 ^a (.6)	12.3 ^b (.8)	6.7 ^a (1.4)	8.48***
Observed parenting (teaching tasks)				
Positive parenting	2.2 (.1)	2.4 (.1)	2.3 (.2)	0.94
Negative parenting	1.8 (.1)	1.9 (.1)	1.8 (.2)	0.28
Proportion negative	0.45 (.01)	0.44 (.02)	0.44 (.03)	0.12

NOTE: CTSPC = Parent-Child Conflict Tactics Scale.

Cell means with different superscripts indicate significantly different estimated means between groups.

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

from controls. A trend was found for mothers to exhibit more positive, and negative, parenting behaviors toward boys, $F(2, 127) = 2.38$, $p < .10$. The Maltreatment Status \times Sex interaction was not significant. When all four groups were examined, no differences were found by maltreatment group, sex, or their interaction. Finally, the negative parenting proportion score also failed to distinguish maltreated from control groups.

Parenting Measures as a Function of Concealment

Of mothers who had maltreated their children, 28% did not acknowledge CPS involvement. Mothers who had neglected their children concealed their history of CPS involvement more frequently (i.e., 12 of 27, or 44%) than mothers who were abusive (4 of 30, or 13%; $\chi^2(1) = 6.81$, $p < .01$). Acknowledgers and Concealers did not differ on any demographic characteristic, in the number of maltreatment allegations, or in the recency of their last substantiated allegation.

Table 4 presents the estimated means for each CTSPC subscale as a function of maternal acknowledgment versus concealment of a CPS history. The overall group effect was significant, $F(8, 242) = 3.47$, $p = .001$, Wilks's lambda = .81. Mothers who acknowledged a CPS history reported higher scores on the Neglect, Physical Assault, and Psychological Aggression subscales than did either mothers who concealed their CPS history or controls. Thus, mothers who concealed their history of maltreatment rated themselves as similar to controls who were nonmaltreating on the CTSPC. Concealers, therefore, appear to be consistent across both self-report formats (i.e., their response to a direct question about CPS involvement during an interview, and the more detailed report of specific parenting tactics assessed later during their

visit) in underreporting their negative parenting behaviors. A significant sex effect also was found, again indicating greater use of discipline by mothers of boys, $F(4, 121) = 3.56$, $p < .01$, Wilks's lambda = .90. There was no Group \times Sex interaction.

Table 4 also presents observed parenting as a function of concealment. No differences were observed in Positive and Negative Parenting scores as a function of maltreatment group (i.e., controls vs. Acknowledgers vs. Concealers), sex, or the interaction of group and sex.

Utility: Can We Use Self-Report and Parenting Observations to Identify CPS-Designated Cases of Maltreatment?

Given the need for clinicians and researchers to accurately discriminate parents who maltreat their children from those who do not, we next examined the ability of self-reports and parenting observations, independently and in combination, to identify mothers with a known CPS history of maltreatment. First, the four CTSPC subscale scores were entered simultaneously in a logistic regression to predict the presence versus absence of a maltreatment history. The CTSPC had high specificity (95.1%, 77 of 81 controls were correctly classified) but poor sensitivity (31.6%, as only 18 of 57 mothers with a history of maltreatment were correctly identified). Only the Neglect subscale was a significant predictor of maltreatment status ($\beta = .59$, odds ratio [OR] = 1.80, $p < .05$).

To identify an optimal CTSPC cut-score for the current sample, two total scores were computed: one for the sum of the three negative parenting subscales (i.e., Neglect, Physical Assault, and Psychological Aggression) and one using all four subscales (i.e., including Nonviolent Discipline). Receiver operating characteristic (ROC) curves were examined for both

total scores. The area under the curve for the four-subscale score (.601) was significantly greater than the area under the curve for the three-subscale score (.565; $z = 2.00, p < .05$), indicating that the inclusion of the Nonviolent Discipline score improved the CTSPC's ability to identify maltreatment status. Optimal cut-scores were 21 for the three-subscale score (sensitivity = 41.9%, specificity = 74.2%, positive predictive value [PPV] = 61.0%, negative predictive value [NPV] = 56.9%) and 38 for the four-subscale score (sensitivity = 51.2%, specificity = 68.5%, PPV = 61.1%, NPV = 59.2%).

Next, observed parenting was examined as a predictor of maltreatment as Positive Parenting and Negative Parenting scores were simultaneously entered in a logistic regression. As for the self-report, specificity was high (88.9%, 72/81); however, sensitivity was low (17.2%, 10/58). Neither the Positive nor Negative Parenting scores predicted maltreatment. Thus, although self-report and parenting observations were fairly accurate in identifying controls, both under-identified mothers with a CPS history.

Does sensitivity improve when self-report and observation data are combined? Specificity remained high (88.9%, 72/81); however, sensitivity remained poor (40.4%, 23/57) as the addition of the observation data did not significantly add to the discrimination of groups. Of the six parenting measures entered in the combined logistic regression, only the CTSPC Neglect subscale was a significant predictor of maltreatment status ($\beta = .59, OR = 1.81, p < .01$). In general, self-report and observation measures, singly and in combination, failed to identify one half or more of the mothers who had a history of maltreating their children.

Utility as a Function of Concealment Status

The question of whether the parenting assessments better discriminated Acknowledgers than Concealers from controls was examined, using the four CTSPC subscales and two observed parenting factors as predictors. Acknowledgers (but not Concealers) reported higher scores than controls on most CTSPC subscales. Hence, we hypothesized that sensitivity would be greater for Acknowledgers than for Concealers. In using all six parenting variables to discriminate Acknowledgers from controls, sensitivity was 41.5% (17/41), and specificity was high (96.3%, 78/81). The Neglect subscale was the only variable to discriminate Acknowledgers from controls ($\beta = .67, OR = 1.95, p < .01$), though a trend was found for the Psychological Aggression subscale ($\beta = .10, OR = 1.10, p < .10$). When discriminating Concealers from controls the specificity also was high (100%, 81/81);

however, the sensitivity was very poor as only one Concealer was identified with a history of maltreatment (6.7% [1/15]). Hence, the parenting assessments, and CTSPC in particular, were better at identifying a history of maltreatment among mothers who acknowledged rather than concealed their maltreatment.

Are Concealers More Likely to Blame Their Child and Less Likely to Blame Themselves for Difficult Mother-Child Interactions?

Parental blame for situations in which the parent had difficulty teaching their child differed as a function of concealment, $F(2, 128) = 5.81, p < .01$. Specifically, mothers who acknowledged their maltreatment history were more likely to blame their difficulty on their own parenting than were Concealers or controls (Parent Blame score for Concealers: $M = 2.7, SE = .8$; Acknowledgers: $M = 5.2, SE = .5$; controls: $M = 3.4, SE = .3$). In contrast, Concealers, Acknowledgers, and controls did not differ in child blame when they had difficulty teaching.¹

Relation Between Self-Reported and Observed Parenting

We examined the degree to which mothers' reported parenting on the CTSPC was related to their observed parenting. For the sample as a whole, maternal reports of parenting behavior tended to be unrelated to observed parenting. One exception was found, as mothers who rated themselves high on the Physical Assault subscale were rated low by observers on Positive Parenting ($r = -.18, p < .05$).

DISCUSSION

Mothers with a CPS history reported higher scores than controls on the Neglect, Nonviolent Discipline, and Psychological Aggression subscales, but not on the Physical Assault subscale of the CTSPC. Moreover, the CTSPC had good specificity, as it was unlikely to misclassify mothers who did not have a history of maltreatment. Thus, it appears that high scores on the CTSPC are indicative of abusive and/or neglectful parenting; however, the meaning of low scores is less clear, particularly among mothers with a known history of maltreatment. In contrast to self-report, brief, nonstressful observations of mother-child interaction during semistructured teaching tasks did not differentiate mothers with a CPS history from controls. Combining self-report and observation data in regressions, about 40% of mothers who acknowledged a history of maltreatment were correctly identified, compared to less than 10% of Concealers. Examining the

optimal cut-score on the CTSPC in a ROC analysis, 51% of mothers who had maltreated their children were identified. Such modest sensitivity limits the usefulness of such assessments for clinicians, case-workers, and researchers.

The Neglect subscale was the best discriminator of the maltreatment and control groups. However, most mothers with a history of maltreatment did not endorse any neglectful behaviors, limiting the subscale's practical utility. It is possible that the severe nature of some items (e.g., "you were so drunk or high that you had a problem taking care of your child") makes it unlikely that mothers will endorse them. A more recent and comprehensive measure of neglect that uses less severe items (Kantor et al., 2004) might better identify mothers who are maltreating their children.

Although the CTSPC was better than observation at identifying maltreating mothers, the sensitivity of the assessments was limited to those who acknowledged having a history with CPS. Mothers who concealed their history rated their behavior as similar to controls on each CTSPC subscale. Thus, mothers who concealed their CPS history of maltreatment during the interview made normative self-reports of parenting, suggesting that mothers' motivation to present in a socially desirable manner is important to consider when assessing this population.

Why would Concealers report normative levels of inappropriate parenting? One possibility is that Concealers made greater improvement than Acknowledgers in their parenting since the time of their most recent allegation to CPS. Their parenting reports may simply reflect this improvement. Thus, their "concealment" may not be face saving or denial but simply reflect an actual change in their parenting behavior. Yet the only external validation of mothers' current parenting behavior, the parenting observations, failed to differentiate Concealers from Acknowledgers. Further evidence against this hypothesis comes from the findings that Concealers and Acknowledgers did not differ in their number of allegations, which might be used as one measure of chronicity, and the two groups did not differ in the recency of their last allegation (i.e., both groups had a similar amount of time to work on improving their parenting behaviors). A second, perhaps more likely explanation is that mothers who concealed their history of maltreatment presented in a consistent, socially desirable manner. Although a direct measure of social desirability was not included in the current study, Concealers not only failed to acknowledge their CPS history but also reported less use of harsh discipline, and they were less likely to take responsibility or to blame themselves for difficult interactions with their

children than were Acknowledgers. This is consistent with the finding that mothers who are maltreating their children are less likely to blame themselves for negative mother-child interactions (Bradley & Peters, 1991) but also provides further evidence that a subgroup of mothers who have maltreated their children will present in a socially desirable manner and deny responsibility, at least publicly, for their parenting difficulties.

The fact that some mothers with a history of maltreatment did not acknowledge it even when they knew that their CPS records would be reviewed underscores the difficulty of assessing parenting behaviors among at-risk parents. Although the use of lie or "fake good" scales may help to identify socially desirable response sets, the utility of such scales is largely unknown among parents at risk for maltreatment (Milner & Crouch, 1997; Robertson & Milner, 1985). Only one study using the CTSPC assessed social desirability among parents who were maltreating their children and found only a weak relation between social desirability and parenting behaviors (Newberger & White, 1987). In contrast, the current findings suggest that some assessment of parents' tendency to respond in a socially desirable manner is necessary when parent report is used, as it appears that CTSPC ratings may be "faked good" among a significant minority of at-risk parents, even when there appears to be relatively little motive for doing so. More research regarding the possible effects of socially desirable responding by parents on the CTSPC is needed.

The current findings raise some practical questions for those attempting to identify parents with a history of maltreatment. First, can a single question that simply asks parents if they have a history of CPS involvement better identify parents with a history of maltreatment than the administration of a self-report such as the CTSPC? Although the sensitivity of the single-item question (i.e., the number who acknowledged CPS involvement of the total number who had CPS records) was greater than that of the four-subscale CTSPC total score (72% vs. 51%), it is questionable whether such relatively high sensitivity would replicate in the more common situation in which a clinician evaluating parenting skills does not have access to CPS records. Moreover, clinicians are generally more interested in identifying whether a parent is using harsh or neglectful parenting, regardless of whether they have a CPS record. However, future research should compare the ability of such brief screens to more comprehensive self-report measures in identifying maltreating parents. Second, should the Nonviolent Discipline subscale of the CTSPC be included when attempting to screen for maltreat-

ment? Consistent with Straus et al. (1998). The Nonviolent Discipline subscale was related to greater parental use of physical discipline and psychological aggression (though not to severe physical assault). Straus et al. hypothesized that the positive relation between these diverse parenting styles reflected the degree of child misbehavior, as high levels of misbehavior may elicit high levels of appropriate and inappropriate parental strategies. Given that the inclusion of the Nonviolent Discipline subscale enhanced the ability of the total CTSPC score to identify parents with a history of maltreatment, the subscale's inclusion appears warranted on a psychometric, if not on a conceptual, basis when screening for maltreatment.

The lack of discriminability from the observation system used in the current study is consistent with some prior research finding no maltreatment group differences or only a small number of group differences amidst a large number of comparisons (Mash et al., 1983; Starr, 1987). Furthermore, some research has found observations of parenting to be unrelated to self-ratings of parenting (Patterson, Reid, & Dishion, 1992). Our finding that a brief, nonstressful observation is unlikely to provide an accurate screen for maltreatment highlights the problem confronting clinicians working on parenting issues with clients, and that of caseworkers making home visits or other evaluative assessments of parents. Given that parents may well work to conceal maltreatment and that unreported maltreatment may be fairly high among the population in general, the field is in great need of identifying some method or combination of methods that can reliably detect when parenting may lead to child harm.

The variety of observation systems used across studies makes comparison difficult. Some studies used small samples (e.g., King et al., 1994, observed only 4 participants), while others used more extreme samples (e.g., Cerezo et al., 1996, included children who had experienced physical abuse for at least 2 years prior to the mother-child observation). The low discriminant validity for observations in the current study may reflect factors such as the brevity of the observations, the semistructured nature of the tasks, and their relatively pleasant, undemanding nature. These parameters may not have sufficiently challenged mothers' abilities to manage their children's behavior (Webster-Stratton, 1985). Schindler and Arkowitz (1986) used the more demanding "Parent's Game" to discriminate mothers with histories of abuse from controls. Similarly, Mash et al. (1983) found mothers who were abusive to be more controlling of their children, but only during the more stress-

ful of two tasks during which increased demands for performance were placed on the mother and child. Yet it is also possible that using a less structured task than that employed in the current study may better discriminate groups. The use of an unstructured, child-directed task rather than a parent-directed task may also produce greater differences between groups (Aragona & Eyberg, 1981). Still others find mother-child conflict in a naturalistic setting to have greater concurrent validity with ratings of child conduct problems than conflict observed during structured tasks (Gardner, Burton, Wilson, & Ward, cited in Gardner, 2000). Consensus on how to best observe parents to detect the potential for maltreatment has not yet emerged.

To reduce socially desirable responding during observations, future research should consider using observational contexts that further encourage mothers to elicit typical parenting behavior (e.g., longer observation periods and home observations, such as used by Bousha & Twentyman, 1984; Burgess & Conger, 1978; Cerezo et al., 1996) or, no parenting behavior at all, given that parents with a history of maltreatment, particularly neglect, tend to interact with their children less frequently than do controls (Bousha & Twentyman, 1984; Burgess & Conger, 1978). More research is needed comparing the discriminant and predictive validity of various observation systems (e.g., structured vs. unstructured and/or naturalistic; molecular coding vs. molar coding) across subtypes of maltreatment before any conclusions can be made as to which parent-child observation tasks are most effective in identifying parents at risk for maltreatment.

Prior research supports the contention that parents who abuse their children, do not necessarily lack parenting knowledge but rather exhibit different parenting behaviors, in part, because of high stress levels and impulsive response styles (Friedrich & Wheeler, 1982). The current findings also imply that mothers with a CPS history of child maltreatment may not necessarily exhibit a knowledge deficit regarding their parenting skills. A significant minority of mothers with a CPS history may have underreported their use of inappropriate parenting behaviors (i.e., Concealers), suggesting an awareness of its inappropriateness. Furthermore, mothers with a CPS history exhibited parenting behaviors similar to control group mothers when videotaped during the teaching tasks. Hence, on a positive note, mothers with a history of maltreatment are capable of inhibiting negative behavior and exhibiting some positive interactions with their children when opportunities and a clear scaffold for the interaction are provided. Missing opportuni-

ties for such “normal” interaction may be an important component of a maltreating parenting style, as suggested by the relation between a negative self-report on the Physical Assault subscale and decreased positive parenting during the observation. One potentially helpful intervention approach would be to provide such direct opportunities, as in parent-child interaction therapy (Borrego, Urquiza, Rasmussen, & Zebell, 1999; Chaffin et al., 2004). It is also possible that mothers who are maltreating their children have knowledge of what they should not do but when emotionally aroused or stressed may have difficulty enacting an appropriate parenting strategy. Maternal characteristics such as the presence of anger and depressive symptoms have been related to maltreatment risk (Casady & Lee, 2002; Mammen, Kolko, & Pilkonis, 2002; Rodriguez & Green, 1997) as parents who are angry and depressed may have difficulty enacting appropriate discipline strategies. A recent parent training study supports the importance of addressing such parental factors, as adding a stress management component to a parenting group was found to increase therapeutic change for parents and children (Kazdin & Whitley, 2003).

Several methodological issues deserve mention. CPS substantiation is widely acknowledged to be an imperfect index of maltreatment. Straus et al. (1998) found the rate of severe physical assault on the CTSPC to be 11 times higher than the national rate reported by CPS records in an epidemiological study. Recent estimates are even higher (Theodore et al., 2005). It is, therefore, possible that our control group contained some mothers who, though never investigated by CPS, did maltreat their children. Second, studies with more participants are needed to better examine parenting assessments for subtypes of maltreatment (e.g., parents with histories of neglect vs. abuse vs. neglect and abuse) because of the large variability within these groups. Third, the interrater reliability for the Positive Parenting factor was modest, which may have limited its ability to discriminate groups. Fourth, it is possible that using the CTSPC as an interview rather than as a self-report may have led to suppressed reporting of negative parenting behaviors (see Tourangeau & Smith, 1996). Finally, the current sample consisted of parents who knew they were enrolling in a study related to child maltreatment, and the findings may not necessarily generalize to the broader population of parents with histories of child maltreatment. Similarly, given that regression models tend to overestimate the “true” relation between variables (van Houwelingen & Le Cessie, 1990), it is possible that the degree of discriminability found between the CTSPC subscales and maltreatment status in the

current sample would not generalize to other samples. Likewise, our findings do not necessarily generalize to other parenting assessments, of which there is no gold standard. Locke and Prinz (2002) reviewed 76 questionnaires, 27 interview schedules, and 33 observation systems assessing parental discipline and/or nurturance, including the CTSPC. Although these various measures assess somewhat similar parenting dimensions, they differ in a variety of ways (e.g., response formats, time period assessed, developmental period assessed) such that findings for the CTSPC and the observation system used in the current study may not generalize to other self-report or observation measures.

The current study is unique in examining the practical utility of the CTSPC, a commonly used and easily administered self-report, and a brief observation to differentiate mothers with a history of maltreatment from controls. Research examining the concurrent and predictive validity of multiple assessment measures, both used independently and in combination, is needed. For example, the Child Abuse Potential Inventory (CAP; Milner, 1986), which assesses risk factors associated with maltreatment rather than actual maltreating behaviors, has been found to predict whether or not future CPS reports are made (Chaffin & Valle, 2003). Research directly comparing the CTSPC to the CAP and similar measures within the same sample is needed to identify the relative psychometric characteristics of each. The current study also highlights the need to develop improved assessments to identify parents who are concealing their parenting behaviors and history. Such research should examine the ability of “lie” or “fake good” scales to identify parents who respond in a socially desirable manner. The identification of assessments that most accurately identify parents who are prone to child maltreatment will be important for evaluators, clinicians, and researchers alike in trying to understand and prevent maltreatment.

NOTE

1. No group differences were observed for Parent or Child Blame for situations in which mothers had an easy time teaching their child.

REFERENCES

- Alessandri, S. M. (1992). Mother-child interactional correlates of maltreated and nonmaltreated children's play behavior. *Development and Psychopathology, 4*, 257-270.
- Aragona, J. A., & Eyberg, S. M. (1981). Neglected children: Mothers' report of child behavior problems and observed verbal behavior. *Child Development, 52*, 596-602.

- Becker, J. V., Alpert, J. L., BigFoot, D. S., Bonner, B. L., Geddie, L. F., Henggeler, S. W., et al. (1995). Empirical research on child abuse treatment: Report by the Child Abuse and Neglect Treatment Working Group, American Psychological Association. *Journal of Clinical Child Psychology, 24*, 23-46.
- Borrego, J., Urquiza, A. J., Rasmussen, R. A., & Zebell, N. (1999). Parent-child interaction therapy with a family at high risk for physical abuse. *Child Maltreatment, 4*, 331-342.
- Bousha, D. M., & Twentyman, C. T. (1984). Mother-child interactional style in abuse, neglect and control groups: Naturalistic observations in the home. *Journal of Abnormal Psychology, 93*, 106-114.
- Bradley, E. J., & Peters, D. R. (1991). Physically abusive and non-abusive mothers' perceptions of parenting and child behavior. *American Journal of Orthopsychiatry, 61*, 455-460.
- Brassard, M. R., Hart, S. N., & Hardy, D. B. (1993). The Psychological Maltreatment Rating Scales. *Child Abuse and Neglect, 17*, 715-729.
- Bruck, M., & Ceci, S. J. (1999). The suggestibility of children's memory. *Annual Review of Psychology, 50*, 419-439.
- Burgess, R. L., & Conger, R. D. (1978). Family interaction in abusive, neglectful and normal families. *Child Development, 49*, 1163-1173.
- Caliso, J. A., & Milner, J. S. (1992). Childhood history of abuse and child abuse screening. *Child Abuse and Neglect, 16*, 647-659.
- Casady, M. A., & Lee, R. E. (2002). Environments of physically neglected children. *Psychological Reports, 91*, 711-721.
- Cerezo, M. A., D'Ocon, A., & Dolz, L. (1996). Mother-child interactive patterns in abusive families versus nonabusive families: An observational study. *Child Abuse and Neglect, 20*, 573-587.
- Chaffin, M., Silovsky, J. F., Funderburk, B., Valle, L. A., Brestan, E. V., Balachova, T., et al. (2004). Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology, 72*, 500-510.
- Chaffin, M., & Valle, L. A. (2003). Dynamic prediction characteristics of the Child Abuse Potential Inventory. *Child Abuse and Neglect, 27*, 463-481.
- Dadds, M. R., Mullins, M. J., McAllister, R. A., & Atkinson, E. (2003). Attributions, affect, and behavior in abuse-risk mothers: A laboratory study. *Child Abuse and Neglect, 27*, 21-45.
- Deitrich-MacLean, G., & Walden, T. (1988). Distinguishing teaching interactions of physically abusive from nonabusive parent-child dyads. *Child Abuse and Neglect, 12*, 469-479.
- Dolz, L., Cerezo, M. A., & Milner, J. S. (1997). Mother-child interactional patterns in high- and low-risk mothers. *Child Abuse and Neglect, 21*, 1149-1158.
- English, D. J. (1999). Evaluation and risk assessment of child neglect in public child protection services. In H. Dubowitz (Ed.), *Neglected children: Research, practice, and policy* (pp. 191-210). Thousand Oaks, CA: Sage.
- Friedrich, W. N., & Wheeler, K. K. (1982). The abusing parent revisited: A decade of psychological research. *Journal of Nervous and Mental Disease, 71*, 577-587.
- Gardner, F. (2000). Methodological issues in the direct observation of parent-child interaction: Do observational findings reflect the natural behavior of participants? *Clinical Child and Family Psychology Review, 3*, 185-198.
- Ghetti, S., Goodman, G. S., Eisen, M. L., Qin, J., & Davis, S. L. (2002). Consistency in children's reports of sexual and physical abuse. *Child Abuse and Neglect, 26*, 977-995.
- Giles-Sims, J., Straus, M. A., & Sugarman, D. B. (1995). Child, maternal, and family characteristics associated with spanking. *Family Relations, 44*, 170-176.
- Graham, S., Weiner, B., Cobb, M., & Henderson, T. (2001). An attributional analysis of child abuse among low-income African American mothers. *Journal of Social and Clinical Psychology, 20*, 233-257.
- Haskett, M. E., Scott, S. S., & Fann, K. D. (1995). Child Abuse Potential Inventory and parenting behavior: Relationships with high-risk correlates. *Child Abuse and Neglect, 19*, 1483-1495.
- Herrenkohl, E. C., Herrenkohl, R. C., Rupert, L. J., Egolf, B. P., & Lutz, G. (1995). Risk factors for behavioral dysfunction: The relative impact of maltreatment, SES, physical health problems, cognitive ability, and quality of parent-child interaction. *Child Abuse and Neglect, 19*, 191-203.
- Hotaling, G. T., Straus, M. A., & Lincoln, A. J. (1989). Intrafamily violence, and crime and violence outside the family. In L. Ohlin & M. Tonry (Eds.), *Family violence* (pp. 315-375). Chicago: University of Chicago Press.
- Jouriles, E. N., & Norwood, W. D. (1995). Physical aggression toward boys and girls in families characterized by the battering of women. *Journal of Family Psychology, 9*, 69-78.
- Kantor, G. K., Holt, M. K., Mebert, C. J., Straus, M. A., Drach, K. M., Ricci, L. R., et al. (2004). Development and preliminary psychometric properties of the Multidimensional Neglectful Behavior Scale—Child Report. *Child Maltreatment, 9*, 409-428.
- Kavanagh, K. A., Youngblade, L., Reid, J. B., & Fagot, B. I. (1988). Interactions between children and abusive versus control parents. *Journal of Clinical Child Psychology, 17*, 137-142.
- Kazdin, A. E., & Whitley, M. K. (2003). Treatment of parental stress to enhance therapeutic change among children referred for aggressive and antisocial behavior. *Journal of Consulting and Clinical Psychology, 71*, 504-515.
- King, G. A., Rogers, C.-L., Walters, G. C., & Oldershaw, L. (1994). Parenting behavior rating scales: Preliminary validation with intrusive, abusive mothers. *Child Abuse and Neglect, 18*, 247-259.
- Lanyon, R. I., Dannenbaum, S. E., & Brown, A. R. (1991). Detection of deliberate denial in child abusers. *Journal of Interpersonal Violence, 6*, 301-309.
- Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical Psychology Review, 22*, 895-929.
- Lytton, H., & Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. *Psychological Bulletin, 109*, 267-296.
- Mammen, O. K., Kolko, D. J., & Pilkonis, P. A. (2002). Negative affect and parental aggression in child physical abuse. *Child Abuse and Neglect, 26*, 407-424.
- Mash, E. J., Johnston, C., & Kovitz, K. (1983). A comparison of the mother-child interactions of physically abused and non-abused children during play and task situations. *Journal of Clinical Child Psychology, 12*, 337-346.
- Melson, G. F., Ladd, G. W., & Hsu, H. (1993). Maternal support networks, maternal cognitions, and young children's social and cognitive development. *Child Development, 64*, 1401-1417.
- Miller, B. A., Downs, W. R., & Gondoli, D. M. (1989). Delinquency, childhood violence, and the development of alcoholism in women. *Crime & Delinquency, 35*, 94-108.
- Miller-Perrin, C. L., & Perrin, R. D. (1999). *Child maltreatment: An introduction*. Thousand Oaks, CA: Sage.
- Milner, J. S. (1986). *The Child Abuse Potential Inventory: Manual* (2nd ed.). Webster, NC: Psytec.
- Milner, J. S. (2003). Social information processing in high-risk and physically abusive parents. *Child Abuse and Neglect, 27*, 7-20.
- Milner, J. S., & Crouch, J. L. (1997). Impact and detection of response distortions on parenting measures used to assess risk for child physical abuse. *Journal of Personality Assessment, 69*, 633-650.
- National Research Council. (1993). *Understanding child abuse and neglect*. Washington, DC: National Academy Press.
- Newberger, C., & White, K. M. (1987, April). *Parental awareness and conflict tactics in relation to individual and environmental variables*. Paper presented at the biennial meeting of the Society for Research in Child Development, Baltimore.
- O'Keefe, M. (1994). Linking marital violence, mother-child/father-child aggression, and child behavior problems. *Journal of Family Violence, 9*, 63-78.
- Oldershaw, L., Walters, G. C., & Hall, D. K. (1989). A behavioral approach to the classification of different types of physically abusive mothers. *Merrill-Palmer Quarterly, 35*, 255-279.
- Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia.

- Robertson, W. K. T., & Milner, J. S. (1985). Detection of conscious deception using the Child Abuse Potential Inventory Lie Scale. *Journal of Personality Assessment, 49*, 541-544.
- Rodriguez, C. M., & Green, A. J. (1997). Parenting stress and anger expression as predictors of child abuse potential. *Child Abuse and Neglect, 21*, 367-377.
- Schindler, F., & Arkowitz, H. (1986). The assessment of mother-child interactions in physically abusive and nonabusive families. *Journal of Family Violence, 1*, 247-257.
- Starr, R. H. (1987). Clinical judgment of abuse-proneness based on parent-child interactions. *Child Abuse and Neglect, 11*, 87-92.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. *Journal of Marriage and the Family, 41*, 75-88.
- Straus, M. A., & Field, C. (2003). Psychological aggression by American parents: National data on prevalence, chronicity, and severity. *Journal of Marriage and the Family, 65*, 795-808.
- Straus, M. A., & Hamby, S. L. (1997). Measuring physical and psychological maltreatment of children with the Conflict Tactics Scales. In G. K. Kantor & J. L. Jasinski (Eds.), *Out of the darkness: Contemporary perspectives on family violence* (pp. 119-135). Thousand Oaks, CA: Sage.
- Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the Parent-Child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse and Neglect, 22*, 249-270.
- Straus, M. A., & Kaufman Kantor, G. (1987). Stress and child abuse. In R. E. Helfer & R. S. Kempe (Eds.), *The battered child* (pp. 75-88). Chicago: University of Chicago Press.
- Straus, M. A., & Stewart, J. H. (1999). Corporal punishment by American parents: National data on prevalence, chronicity, severity, and duration, in relation to child and family characteristics. *Clinical Child and Family Psychology Review, 2*, 55-70.
- Theodore, A. D., Chang, J. J., Runyan, D. K., Hunter, W. M., Bangdiwala, S. I., & Agras, R. (2005). Epidemiologic features of the physical and sexual maltreatment of children in the Carolinas. *Pediatrics, 115*, 331-337.
- Timmer, S. G., Borrego, J., & Urquiza, A. J. (2002). Antecedents of coercive interactions in physically abusive mother-child dyads. *Journal of Interpersonal Violence, 17*, 836-853.
- Tourangeau, R., & Smith, T. W., (1996). Asking sensitive questions: The impact of data collection mode, question format, and question context. *Public Opinion Quarterly, 60*, 275-304.
- Tuteur, J. M., Ewigman, B. E., Peterson, L., & Hosokawa, M. C. (1995). The Maternal Observation Matrix and the Mother-Child Interaction Scale: Brief observational screening instruments for physically abusive mothers. *Journal of Clinical Child Psychology, 24*, 55-62.
- van Houwelingen, J. C., & Le Cessie, S. (1990). Predictive value of statistical models. *Statistics in Medicine, 9*, 1303-1325.
- Watt, N. F. (1976). *Two-factor index of social position: Amherst modification*. Unpublished manuscript, University of Massachusetts at Amherst.
- Webster-Stratton, C. (1985). Comparisons of behavior transactions between conduct-disordered children and their mothers in the clinic and at home. *Journal of Abnormal Child Psychology, 13*, 169-183.
- Whipple, E. E., & Webster-Stratton, C. (1991). The role of parental stress in physically abusive families. *Child Abuse and Neglect, 15*, 279-291.
- David S. Bennett, Ph.D., is assistant professor of psychiatry at Drexel University College of Medicine and director of the Growth, Learning, and Development program. His research focuses on the emotional and behavioral adjustment of children from at-risk populations, including children with histories of physical abuse, neglect, prenatal substance exposure, and chronic physical problems.*
- Margaret Wolan Sullivan, Ph.D., is professor at the Institute for the Study of Child Development at Robert Wood Johnson Medical School, and director of the Infant Learning Lab. Her research focuses on the emotional and physiological responses of young infants in response to learning and frustration, and the development of children's shame and pride, including the roles of parenting in socializing these emotions, especially among children with histories of maltreatment. She serves on the editorial board of Infants and Young Children and also reviews for a number of major journals in her field.*
- Michael Lewis, Ph.D., is University Distinguished Professor of Pediatrics and Psychiatry, director of the Institute for the Study of Child Development at Robert Wood Johnson Medical School, and professor of psychology and cognitive science at Rutgers University. His studies of emotional development resulted in Children's Emotions and Moods, the first attempt to delineate the normal course of emotional growth. He is coeditor of the Handbook of Emotions (with J. M. Haviland-Jones, 2000) and has authored numerous other books, including Shame, the Exposed Self (1992), and articles on emotional development and adjustment. His research on the self-conscious emotions include work with those who are sexually abused, and children who are physically abused and neglected.*