

Assessment

<http://asm.sagepub.com>

Child Versus Parent Reports of Parenting Practices: Implications for the Conceptualization of Child Behavioral and Emotional Problems

Christopher T. Barry, Paul J. Frick and Sarah J. Grafeman
Assessment 2008; 15; 294 originally published online Jan 8, 2008;
DOI: 10.1177/1073191107312212

The online version of this article can be found at:
<http://asm.sagepub.com/cgi/content/abstract/15/3/294>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Assessment* can be found at:

Email Alerts: <http://asm.sagepub.com/cgi/alerts>

Subscriptions: <http://asm.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations (this article cites 26 articles hosted on the SAGE Journals Online and HighWire Press platforms):
<http://asm.sagepub.com/cgi/content/refs/15/3/294>

Child Versus Parent Reports of Parenting Practices

Implications for the Conceptualization of Child Behavioral and Emotional Problems

Christopher T. Barry

University of Southern Mississippi

Paul J. Frick

University of New Orleans

Sarah J. Grafeman

University of Southern Mississippi

This study examined parent and child reports of parenting practices separately to predict child and parent reports of child externalizing and internalizing features, as well as delinquent activity. Participants included 98 children (51 male, 47 female) from a community sample, aged 9-15 at the beginning of the study. Results revealed that child reports of parenting practices were significantly correlated with a greater number of indices of delinquency and conduct problems than were parent reports. Child reports of parenting also showed some association with delinquency at three yearly follow-ups, whereas parent reports did not. Finally, reports of negative parenting from both informants were concurrently related to internalizing characteristics. Implications for child assessment and planning interventions for children and parents are discussed.

Keywords: parenting practices; assessment

Negative parenting practices (e.g., inconsistent discipline, harsh discipline, poor monitoring, and supervision) and the lack of positive parenting practices (e.g., positive reinforcement, involvement) have been the targets of many parent management interventions that have proven very effective in reducing conduct problem behaviors (e.g., Barkley, 1997; Forehand & Long, 2001). However, it is unclear to what extent a distinction between negative parenting and absence of positive parenting would provide useful clinical information targeting different areas of behavioral or emotional functioning.

Furthermore, though some previous evidence indicates that child reports of parenting practices are related to the presence of child externalizing behaviors (e.g., Frick, Christian, & Wootton, 1999), the bulk of research in this area has focused on observational methods of assessing parenting practices (e.g., Caron, Weiss, Harris, & Catron, 2006; McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991; Zaslow et al., 2006) or reports of parenting practices by parents themselves (e.g., see review by Locke & Prinz, 2002; Zaslow et al., 2006). Thus, the potential usefulness of the child's perspective of the rearing environment for

This work was supported by Grant MH55654-02 from the National Institute of Mental Health made to the second author. Correspondence concerning this article should be addressed to Christopher T. Barry, PhD, Department of Psychology, University of Southern Mississippi, 118 College Dr., Box 5025, Hattiesburg, MS 39406; e-mail: christopher.barry@usm.edu.

Assessment, Volume 15, No. 3, September 2008 294-303
DOI: 10.1177/1073191107312212
© 2008 Sage Publications

understanding the child's emotional and behavioral functioning has not been considered extensively. This relative lack of focus on child reports of parenting is understandable in light of questions concerning the reliability and validity of such reports. However, some research has shown that the relation between child reports of parenting practices and externalizing behaviors is particularly evident during adolescence (Frick et al., 1999), a time when youth can be expected to provide reliable and valid reports of parenting and their own behavioral functioning (Kamphaus & Frick, 2005).

Although dysfunctional parenting practices have been most consistently related to externalizing behaviors, such as conduct problems and delinquency (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Loeber & Dishion, 1983), there is also research to suggest that parenting practices are associated with features of internalizing problems such as depression (Dallaire et al., 2006). In their study, Dallaire and colleagues (2006) found that parent reports of both positive and negative parenting practices were related to parent and child reports of the child's depressive features. The use of child self-reports of internalizing characteristics has been a well-accepted practice—one that given the nature of these characteristics likely sheds important light on the emotional functioning of youth in a way that other informants cannot (Kamphaus & Frick, 2005; Klein, Dougherty, & Olino, 2005; Silverman & Ollendick, 2005).

One recent study by Caron and colleagues (2006) investigated the association between observed parenting behavior and both child externalizing and internalizing features. Their findings point to the importance of psychological control (e.g., threats, guilt induction) in predicting both types of child problems, particularly for children whose parents also exhibited low warmth. However, a focus on the emotional climate established by parents is different from the examination of specific parenting practices/behaviors and their associations with child emotional/behavioral functioning.

The present study investigated whether both negative parenting practices and the absence of positive parenting practices are associated differentially with symptoms of Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), and delinquency (i.e., violent, property, drug, and status offenses), as well as child internalizing characteristics. Perhaps most important, this study considers the child's and parent's perspectives independently as to their associations with child externalizing and internalizing features. Finally, the present study has a longitudinal component in that the relation between parent and child reports of parenting practices at an initial assessment and reports of delinquency and police contacts at three yearly follow-ups was tested.

It was hypothesized that reports of parenting would be correlated with reports of the child's behavioral and emotional functioning from the same informant (e.g., parent reports of parenting would be related to parent reports of externalizing and internalizing characteristics). Second, parent reports of parenting were expected to be more useful for predicting concurrent and later child externalizing behaviors compared to child reports of parenting in light of the relatively young age of participants at the beginning of the study and the likelihood of child underreporting of these behaviors. Third, even with the relatively young age of participants at the beginning of the study, it was hypothesized that child reports of parenting were expected to predict unique variance in child internalizing features, simply given the nature of such features, although some concerns have also been raised about possible youth underreporting of internalizing characteristics, particularly anxiety (Silverman & Ollendick, 2005).

METHOD

Participants

Approximately 4,000 parents of third, fourth, sixth, and seventh graders in two school systems in a moderate-sized city in the southeastern United States received announcements about the study. The two school systems were chosen because one served the immediate urban area, and the second served the surrounding region that was predominantly suburban and rural. Following receipt of the parents' consent forms and rating scales, the child's teacher completed analogous questionnaires. For each child who participated in this initial screening, his or her teacher received \$10 for classroom educational supplies. This screening yielded a sample of 1,136 children.

From this initial screening, a subgroup of children was recruited to participate in a longitudinal study of children's risk for violence and delinquency. This subgroup was selected to ensure equal numbers of children who were high and low on conduct problems based on parent and teacher ratings of ODD and CD symptoms from the fourth edition of the Child Symptom Inventory-4 (CSI-4; Gadow & Sprafkin, 1995). The sample of 1,136 children was divided into groups based on combined parent and teacher ratings of conduct problems, with one group being below the mean on conduct problems and the other being at or above the upper quartile on conduct problems, with the latter being considered the group at high risk for later delinquency. These groups were then stratified on gender, ethnicity, and socioeconomic status (SES), and 50 children in each group were recruited to participate in the study.

through a random stratified sampling procedure, with the groups matching the group from which they were sampled on gender, ethnicity, and SES. This led to a sample of 98 children (2 children in the high-risk group were lost because of errors in data collection). The sample was 47% female and 21% African American (the only ethnic group represented other than White), and the average Duncan's SEI, as an indicator of SES (Hauser & Featherman, 1977), was 46.67 ($SD = 19.96$). Children in the sample had an average Kaufman Brief Intelligence (K-BIT; Kaufman & Kaufman, 1990) composite score of 104.83 ($SD = 12.88$).

This group of 98 children was invited to participate in three yearly follow-up assessments. At the 1-year follow-up, 93 children participated, with 87 and 79 children participating at the last two follow-up assessments, respectively. There was no differential attrition across study groups. At the final assessment, there were 39 participants from the group that was high on conduct problems and 40 children from the group low on conduct problems.

Materials

Alabama Parenting Questionnaire (APQ). The APQ is a 42-item child- and parent-report measure assessing five parenting constructs (Shelton, Frick, & Wootton, 1996). These constructs are parental involvement (10 items), use of positive reinforcement (6 items), poor parental monitoring and supervision (10 items), use of inconsistent discipline (6 items), and corporal punishment (3 items). The APQ consists of a global report in which parenting behaviors are rated by the parents and children as to their typical frequency on a 5-point scale from 1 (*never*) to 5 (*always*) and an interview format in which the same practices are rated on their frequency on four occasions, at least 3 days apart.

The five-factor structure of the APQ has been supported in two large community samples (Elgar, Waschbusch, Dadds, & Sigvaldason, 2007; Essau, Sasagawa, & Frick, 2006). Also, parent ratings on the APQ have been associated with observations of parenting behavior in 4- to 8-year-old boys (Hawes & Dadds, 2006). Furthermore, a number of studies have shown that the APQ scales are associated with conduct problems in children in community (Dadds, Maujean, & Fraser, 2003), clinic-referred (Frick et al., 1999; Hawes & Dadds, 2006; Shelton et al., 1996), and inpatient samples (Blader, 2004).

Past research has indicated that the parenting constructs can be combined into two composites: a positive parenting composite involving the parental involvement and positive reinforcement scales and a negative composite involving the poor monitoring and supervision, inconsistent discipline, and corporal punishment scales (Frick et al., 1999; Frick, Kimonis, Dandreaux, & Farrell, 2003; Shelton et al., 1996). To form these composites, subscales

were converted to z scores and summed within each of the assessment formats. In the present study, negative parenting and positive parenting were investigated separately for parent and child reports, combining the global report and interview report formats, given the significant positive correlations between these formats for child and parent reports. More specifically, the correlations between the global and interview formats for negative and positive parenting were $r = .37$ ($p < .001$) and $r = .44$ ($p < .001$), respectively. For the child report, the correlations between the global and interview formats for negative and positive parenting were $r = .49$ ($p < .001$) and $r = .42$ ($p < .001$), respectively.

The NIMH Diagnostic Interview Schedule for Children—Version 4 (DISC-IV). The parent and child reports on the DISC-IV were used to assess for all symptoms of ODD and CD at the initial comprehensive assessment (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). The DISC-IV is a highly structured interview designed to be administered by lay interviewers with appropriate training. It has proven to be highly reliable on both the symptom and diagnostic level (Lahey et al., 1994). Interviewers were a licensed psychologist or advanced graduate students in psychology who were trained in standardized administration procedures for the DISC. For the purposes of the present study, child and parent reports on the DISC were considered separately.

Self-Report of Delinquency Scale (SRD). The SRD assesses the child's self-report of 36 illegal juvenile acts and was administered to participants at the three yearly follow-ups (Elliott & Ageton, 1980). The SRD was developed from a list of all offenses reported in the Uniform Crime Report with a juvenile base rate of greater than 1% (Elliott & Huizinga, 1984). Consistent with past uses of the scale (e.g., Krueger et al., 1994), a composite measure was created summing the number of delinquent acts committed (with a possible range of 0-33), with questions regarding sexual behavior and coercion being omitted. This composite had a *coefficient alpha* of .74 at baseline. Follow-up reports of delinquency asked participants to indicate whether they had engaged in each act within the last year, whereas reports at baseline were in reference to whether the participant had ever engaged in the behavior. Self-reports of delinquency have been considered particularly useful because they are significantly correlated with official records of delinquent behavior (Krueger et al., 1994) and youth report engaging in behaviors of which parents or other adults may be unaware (Cashel, 2003; Huizinga & Elliott, 1986).

Police contacts. Parents were asked whether their child had any previous police contacts at the initial assessment and for the previous year for the follow-up assessments. This report served as a proxy measure of parent-reported

delinquency for the present study. Police contacts were coded dichotomously according to whether any contacts had occurred, given the low base rate of police involvement in a nonreferred sample, particularly at the time of the first assessment in the present study.

Behavior Assessment System for Children (BASC). The BASC is a widely used comprehensive rating system of a variety of child and adolescent behaviors and characteristics (Reynolds & Kamphaus, 1992). The BASC was standardized on a large nationwide sample and has demonstrated good reliability and validity at the subscale level (see Kamphaus & Frick, 2005). The Anxiety and Depression subscales of both the parent-report and child-report versions of the BASC were used to assess internalizing characteristics in this study. Both scales have demonstrated good reliability and good convergent validity with other indicators of their respective target characteristics (Reynolds & Kamphaus, 1992).

Procedure

Selected parents and children who participated in the screening procedure described above were invited to participate in a longitudinal study of children's personality and behavior that included the measures used in the current study (see Frick, Kimonis, et al., 2003 for a more complete description of the full assessment procedures). For the initial comprehensive assessment, participants were tested in two sessions with the procedures in a standardized order for all participants. The first session started with an informed consent procedure conducted with the parent and child together. They were then separated, and parents were administered a semistructured interview to obtain demographic information, followed by the DISC-IV interview and the APQ ratings. In a separate room, the children were administered the Kaufman Brief Intelligence Test and the DISC-IV. At a second testing session, the child completed the BASC, as well as several other self-report questionnaires, as part of a larger study. The interview format of the APQ was administered over the phone on four occasions, at least 3 days apart, as suggested in previous research (Shelton et al., 1996). Parents received \$100.00 for their participation in the comprehensive assessment procedures, and the youth received a \$15.00 gift certificate to either a local music store or bookstore.

The remaining three follow-up assessments took place over the phone once per year over the next 3 years. Parents were asked to allow their children to be interviewed by phone in a private place in the home. Prior to answering questions, children were asked whether they were able to answer the questions privately. Finally, children only provided answers in such a way that anyone overhearing the

conversation would not know the questions. Only data from the SRD measure and parent reports of police contacts from these follow-ups were analyzed for the present study. Parents received \$65.00 for their participation in each follow-up assessment, and the youth received a \$15.00 gift certificate to either a local music store or bookstore.

RESULTS

Externalizing Problems

Correlational analyses. Parent and child reports of parenting were significantly correlated for both positive parenting ($r = .44, p < .001$) and negative parenting ($r = .32, p < .01$). Parent and child reports of CD symptoms were also significantly correlated ($r = .32, p < .01$), but they were not for ODD symptoms ($r = .13, p > .10$). Child self-reports of delinquency were also significantly correlated with parent reports of child police contacts ($r = .25, p < .05$). Correlations among child reports of parenting, conduct problems, delinquency, and police contacts are shown in Table 1. These analyses revealed that child reports of negative parenting were related to a variety of behavioral indicators including self-reports of delinquency ($r = .42, p < .001$), self-reports of CD symptoms ($r = .25, p < .05$), self-reports of ODD symptoms ($r = .30, p < .01$), and parent reports of ODD and CD symptoms ($r = .24, p < .05$, and $r = .23, p < .05$, respectively). Child reports of positive parenting were not statistically significantly related to reports of ODD or CD symptoms for either informant. Positive parenting was inversely related to self-reported delinquency ($r = -.34, p < .01$) and to parent reports of the child's police contacts ($r = -.27, p < .01$). It should be noted that in all our correlational analyses, those coefficients significant at the $p < .001$ level of *alpha* are still statistically significant when correcting for the number of correlations examined in each set of analyses.

Parents' reports of their own parenting practices were typically not associated with indicators of child behavioral functioning for this sample. Specifically, parents' reports of their own use of negative parenting strategies were significantly correlated with parent reports of the child's CD ($r = .23, p < .05$) and ODD ($r = .31, p < .01$) symptoms. However, parent reports of negative parenting were not associated with child reports of conduct problems or delinquency. In addition, parents' reports of their own use of positive parenting strategies were not significantly correlated with any indicators of conduct problems or delinquency. Last, examination of the distribution of reports of CD and ODD symptoms revealed that the distribution of youth reports of CD symptoms was highly

TABLE 1
Correlations Between Conduct Problems, Delinquency, and Child Reports of Parenting

	<i>Positive Parenting</i>	<i>Negative Parenting</i>	<i>YCD sx</i>	<i>YODD sx</i>	<i>PCD sx</i>	<i>PODD sx</i>	<i>Delinq.</i>	<i>Police</i>
Positive parenting	—	-.20	-.17	-.15	-.05	-.08	-.34**	-.27**
Negative parenting		—	.25*	.30**	.23*	.24*	.42***	.14
YCD sx			—	.57***	.32**	.22*	.49***	.06
YODD sx				—	.22*	.13	.34**	.03
PCD sx					—	.64***	.10	.25*
PODD sx						—	.07	.03
Delinq.							—	.25*
Police								—

NOTE: YCD sx = youth self-reports of Conduct Disorder (CD) symptoms; YODD sx = youth self-reports of Oppositional Defiant Disorder (ODD) symptoms; PCD sx = parent reports of child CD symptoms; PODD sx = parent reports of child ODD symptoms; Delinq. = delinquency at initial assessment; Police = parent reported child police contacts. Correcting for the number of correlations examined in this table results in coefficients that are significant at the $p < .001$ level of alpha still being statistically significant. The correlation coefficients significant at the $p < .05$ and $p < .01$ levels of alpha still indicate small-to-moderate effect sizes.

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

TABLE 2
Predictive Associations Between Reports of Parenting Practices and Later Delinquency

	<i>Y Pos Parenting</i>	<i>Y Neg Parenting</i>	<i>P Pos Parenting</i>	<i>P Neg Parenting</i>	<i>Del 1</i>	<i>Del 2</i>	<i>Del 3</i>
Y Pos Parenting	—	-.20	.44***	-.31**	-.36** (-.18)	-.14 (-.04)	-.26* (-.05)
Y Neg Parenting		—	-.07	.32**	.38*** (.07)	.36** (.25*)	.33** (.08)
P Pos Parenting			—	-.22*	-.16 (-.32**)	.05 (.05)	-.08 (.05)
P Neg Parenting				—	.13 (.05)	.10 (.06)	.20 (.11)
Del 1					—	.68***	.60***
Del 2						—	.74***
Del 3							—

NOTE: Y Pos Parenting = youth reports of positive parenting; Y Neg Parenting = youth reports of negative parenting; P Pos Parenting = parent reports of positive parenting; P Neg Parenting = parent reports of negative parenting; Del 1 = delinquency at 1-year follow-up; Del 2 = delinquency at 2-year follow-up; Del 3 = delinquency at 3-year follow-up. Coefficients in parentheses are partial correlations controlling for delinquency at the initial assessment. Correcting for the number of correlations examined in this table results in coefficients that are significant at the $p < .001$ level of alpha still being statistically significant. The correlation coefficients significant at the $p < .05$ and $p < .01$ levels of alpha still indicate small-to-moderate effect sizes.

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

positively skewed (i.e., *skewness* = 4.15) and leptokurtic (i.e., *kurtosis* = 21.8). However, scoring this variable dichotomously (i.e., 0 for *no reports* of symptoms and 1 for *any reported symptoms*) resulted in very little change in the magnitude of all correlations involving youth-reported CD symptoms.

Predictive associations with delinquency. These child and parent reports of parenting were then correlated with later delinquency as reported by children at the three yearly follow-ups and police contacts as reported by parents at the three follow-ups. The results of the correlations regarding child reports of delinquency at the three follow-ups are shown in Table 2. As shown in Table 2, it was youth reports of parenting that were consistently correlated with the level of later youth-reported delinquency. Partial correlation analyses of the association between child reports of parenting and later delinquency were then conducted to

control for baseline delinquency. From these analyses, the only significant partial correlations were between child reports of negative parenting and delinquency at the second follow-up ($pr = .24$, $p < .05$) and parent reports of positive parenting and delinquency at the first follow-up ($pr = -.32$, $p < .01$).

Predictive associations involving parent reports of police contacts at the follow-up assessments are reported in Table 3. These analyses revealed that only child reports of positive parenting were significantly correlated with later police contacts, that is, child reports of relatively low positive parenting was associated with parent reports of police contacts 1 year ($r = -.33$, $p < .01$), 2 years ($r = -.28$, $p < .05$), and 3 years ($r = -.23$, $p < .05$) later.

Structural equation modeling. Structural equation modeling was conducted using AMOS 6.0. These analyses allowed for a test of the association of different informants'

TABLE 3
Predictive Associations Between Reports of Parenting Practices and Police Contacts at Later Follow-Ups

	Police 1	Police 2	Police 3
Y Pos Parenting	-.33**	-.28*	-.23*
Y Neg Parenting	.12	.09	.06
P Pos Parenting	-.10	-.10	-.09
P Neg Parenting	.00	-.07	-.02

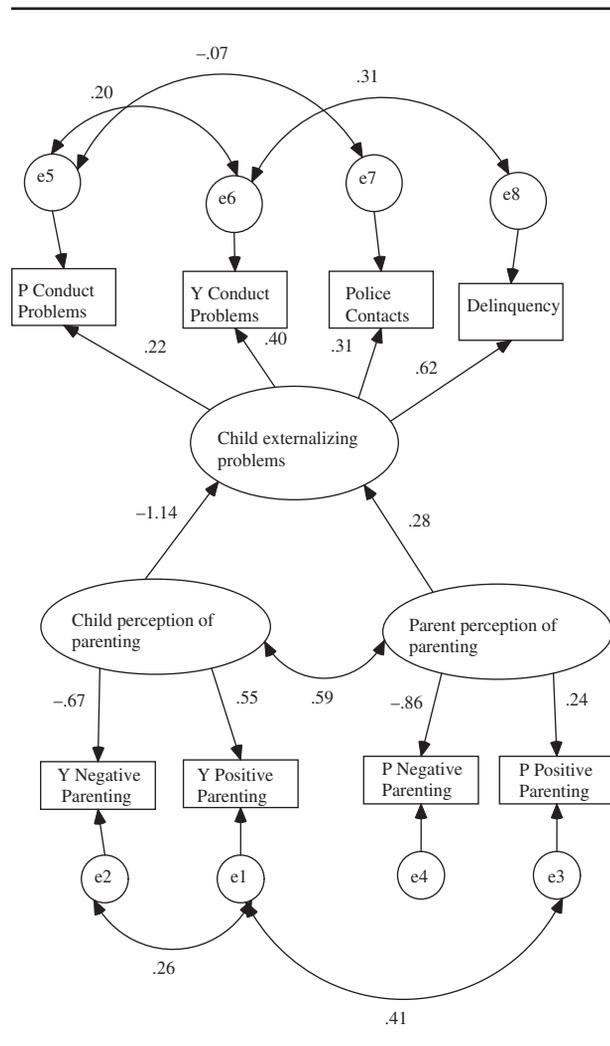
NOTE: Y Pos Parenting = youth reports of positive parenting; Y Neg Parenting = youth reports of negative parenting; P Pos Parenting = parent reports of positive parenting; P Neg Parenting = parent reports of negative parenting; Police 1 = police contacts reported at 1-year follow-up; Police 2 = police contacts at 2-year follow-up; Police 3 = delinquency at 3-year follow-up. Correcting for the number of correlations examined in this table results in these coefficients no longer being considered statistically significant. However, the correlation coefficients significant at the $p < .05$ and $p < .01$ levels of α still indicate small-to-moderate effect sizes.
 * $p < .05$. ** $p < .01$.

reports of parenting on latent constructs of externalizing problems, formed by taking the shared variance across reporters and type of externalizing behaviors. A model depicting the prediction of conduct problems and delinquency across type of parenting and informant is shown in Figure 1, with standardized coefficients shown. Parent and child perception of parenting practices served as latent variables indicated by parent and child reports of positive and negative parenting practices on the APQ. These latent variables were predictors of the endogenous latent variable, child externalizing problems with four indicator variables (i.e., parent reports of conduct problems from the DISC, child reports of conduct problems from the DISC, parent reports of police contacts, and child reports of delinquency from the SRD). The χ^2 for the model was not significant, $\chi^2(13) = 17.54, p > .10$. Furthermore, the root mean square error of approximate (RMSEA) was .06, and the comparative fit index (CFI) was .95, all indicating good fit for this model. As shown in Figure 1, the latent constructs of child and parent reports of parenting were related, and the perception of parenting was particularly important in the prediction of child externalizing behaviors.

Internalizing Problems

Correlational and regression analyses. The correlational analyses were repeated for parent and child reports of internalizing features (i.e., anxiety and depression) from the BASC. The correlations are shown in Table 4. Parent reports of negative parenting practices were correlated with reports of anxiety from both the child's ($r = .25, p < .05$) and parent's ($r = .27, p < .05$) perspectives. Likewise,

FIGURE 1
Structural Equation Model of Child Externalizing Problems Predicted From Reports of Parenting Practices



parent reports of negative parenting were associated with child depression from child ($r = .26, p < .05$) and parent ($r = .34, p < .01$) reports. Similarly, negative parenting from the child's perspective was significantly correlated with parent ($r = .32, p < .01$) and child ($r = .56, p < .001$) reports of depression. Negative parenting as indicated by child reports also corresponded to child self-reports of anxiety ($r = .32, p < .01$). The presence of positive parenting, as indicated by child report, was significantly negatively correlated with child self-reports of depression ($r = -.36, p < .001$).

To account for the possibility of these results being explained by comorbidity between internalizing features and conduct problems, the correlations were repeated,

TABLE 4
Correlations Between Reports of Parenting Practices and Child Internalizing Problems

	<i>Y Pos Parenting</i>	<i>Y Neg Parenting</i>	<i>P Pos Parenting</i>	<i>P Neg Parenting</i>	<i>Y Dep</i>	<i>Y Anx</i>	<i>P Dep</i>	<i>P Anx</i>
Y Pos Parenting	—	-.20	.44***	-.31**	-.36***	-.12	-.16	.03
Y Neg Parenting		—	-.07	.32**	.32**	.32**	.56***	.09
P Pos Parenting			—	-.22*	-.04	-.10	.01	.11
P Neg Parenting				—	.26*	.25*	.34**	.27*
Y Dep					—	.34**	.26*	.08
Y Anx						—	.16	.20*
P Dep							—	.70***
P Anx								—

NOTE: Y Pos Parenting = youth reports of positive parenting; Y Neg Parenting = youth reports of negative parenting; P Pos Parenting = parent reports of positive parenting; P Neg Parenting = parent reports of negative parenting; Y Dep = youth reports of depression; Y Anx = youth reports of anxiety; P Dep = parent reports of youth's depression; P Anx = parent reports of youth's anxiety. Each of these indices was from the BASC. Correcting for the number of correlations examined in this table results in coefficients that are significant at the $p < .001$ level of alpha still being statistically significant. The correlation coefficients significant at the $p < .05$ and $p < .01$ levels of alpha still indicate small-to-moderate effect sizes. * $p < .05$. ** $p < .01$. *** $p < .001$.

controlling for a composite score of parent and self-reports of conduct problems. More specifically, parent and child reports were combined such that an ODD or CD symptom was considered present if either informant endorsed it, with ODD and CD scores being summed. This either/or approach is consistent with recommendations by Piacentini, Cohen, and Cohen (1992) for combining data from multiple informants.

First, the correlation between parent reports of negative parenting and child reports of anxiety was no longer significant ($pr = .17$, $p > .10$), whereas the correlation between child reports of negative parenting and child reports of anxiety was still significant ($pr = .25$, $p < .05$) after controlling for level of conduct problems. Similarly, for child reports of depression, only the partial correlations with child reports of positive and negative parenting remained significant ($pr = .51$, $p < .001$, and $pr = .31$, $p < .01$, respectively). The correlation between parent-reported negative parenting and parent-reported child anxiety, as well as the correlations involving parent reports of child depression, were no longer significant after controlling for level of conduct problems.

Structural equation modeling. A structural equation model depicting the relations between parent and child reports of parenting and internalizing features is shown in Figure 2. Standardized coefficients are shown. Again, parent and child perception of parenting practices served as latent variables, indicated by parent and child reports of positive and negative parenting practices on the APQ. Contrary to the model shown in Figure 1, the latent parenting variables in this model were indicative of negative parenting. Depression and anxiety were also latent variables in this model indicated by parent and child reports of depression and anxiety on the BASC. In this model, unique error

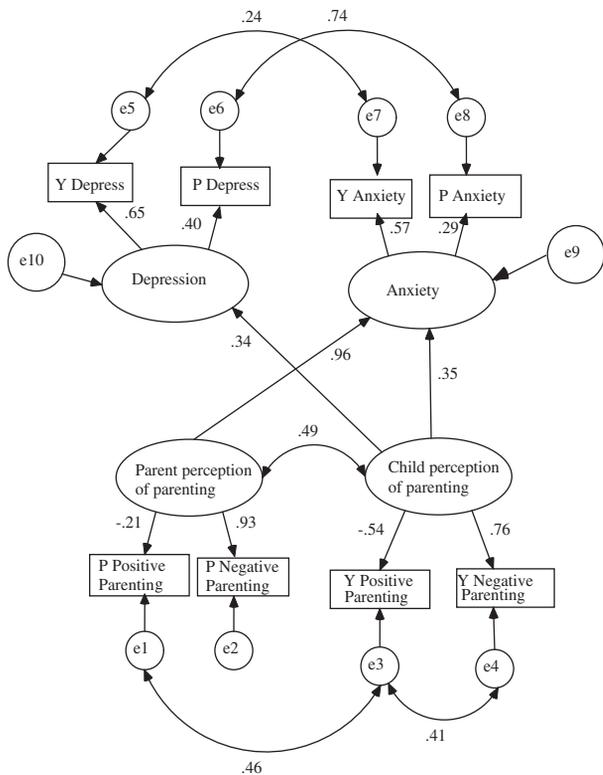
terms for the latent constructs of anxiety and depression were included (i.e., e_9 and e_{10} , respectively). The χ^2 for the model was not significant, $\chi^2(12) = 10.35$, $p > .10$. The root mean squared error of approximate and comparative fit index for this model were 0.00 and 1.00, respectively, indicating that this model fits our data quite well. The model for internalizing features shown in Figure 2 indicates that the perspectives of both children and their parents concerning parenting practices were predictive of the child's anxiety, whereas only the child's perception of parenting was associated with characteristics of depression for the child.

DISCUSSION

The results of the present study suggest that assessment of a child's perception of parenting practices can be useful. In general, children's reports of parenting showed small-to-moderate associations with conduct problems and delinquency. These associations were present even when parents were informants of these behaviors. Thus, shared method variance could not solely account for these correlations. This latter pattern was somewhat in contrast to our second hypothesis, although the relations within informants between reports of parenting and reports of behavioral/emotional functioning were still consistent with our first hypothesis. Therefore, the findings do point to the issue of shared method variance as a partial explanation of our findings.

From the child's point of view, low positive reinforcement and parental involvement appeared to be particularly tied to the child's self-report of delinquent acts that include overt (i.e., violence) and potentially more covert (i.e., drug, property offenses) behaviors concurrently and up to 3 years later. Although child reports of parenting

FIGURE 2
Structural Equation Model of Child
Internalizing Problems Predicted From
Reports of Parenting Practices



were predictive of delinquency, the results of this study still indicate that a better predictor of later delinquency is previous delinquency. Nevertheless, assessment of positive parenting practices in the form of parental involvement and use of positive reinforcement from the child's point of view may be important for predicting and designing efforts to prevent the youth's involvement in delinquent/illegal activities. A potential reason for this finding is that relatively infrequent use of positive parenting practices may be associated with the lack of affiliation with parental values and possibly other positive aspects of the community, such that a child or adolescent is then more likely to engage in delinquent activities (Guerra & Williams, 2006). However, this possibility was not directly examined in this study.

As noted earlier, given concerns regarding the ability of children to provide reliable and accurate accounts of psychological constructs, including parenting behavior, traditional approaches have relied on parent reports and/or observations of these behaviors and determining their

relation to outcomes of interest (e.g., externalizing behaviors). These concerns are well placed for children who are below a developmental level at which they are not considered to be useful informants on a variety of behavioral and psychological domains. The current study, however, focused on a community sample of children from preadolescence to early adolescence who—given the recruitment strategy employed—exhibited a wide range of conduct problem and delinquent behaviors. We expect that these participants were able to reliably convey their views on the parenting strategies to which they were exposed, as well as provide information about some of their own behaviors of which their parents likely were not aware. In the present sample, child reports of parenting were moderately correlated with parent reports of parenting, whereas the correlations across informants were previously found to be rather small in magnitude in a slightly younger clinic-referred sample (i.e., subscale *r*s ranging from .08 to $-.28$; Shelton et al., 1996). The associations found in the present study suggest that parents and children generally agree on their reports of parenting but that they also provide some variability in their perceptions of the parenting practices that occur.

The pattern of findings regarding parent and child reports of internalizing problems also suggests that child reports of parenting may be a useful target of assessment, which was consistent with our third hypothesis. This conclusion is made tentatively and is based on the negative association between child reports of positive parenting and features of depression, as well as the finding that only correlations with internalizing problems that involved child reports of parenting remained significant when controlling for conduct problems. Given the associations between child reports of parenting and both externalizing and internalizing problems, the child reports of parenting practices may be driven by the child's overall perception of the quality of the parent-child relationship rather than the frequency of specific parenting acts. This perception appears to be of greater clinical importance than has been previously considered.

These results must be interpreted with some caution, given the limitations in the methodology. First, parent reports of police contacts were used as a measure of delinquency separate from self-reports. In this sample, even when scored dichotomously, parent reports of police contacts were positively skewed at all four assessments. In addition, this measure does not provide the breadth of information included in reports of property, violent, drug, and status offenses that were available through the child reports. It is also quite likely that youth in the age group investigated in this study would be much more accurate in their reports of many such acts, as parents may not be aware of the frequency or extent of their child's/adolescent's delinquent behavior (Kamphaus & Frick, 2005).

Second, potential intervening variables (e.g., child temperament) through which different parenting practices might be related to externalizing behaviors or internalizing features were not investigated, making explanation of these results incomplete. For example, transactional models have demonstrated that a child's propensity toward poor behavioral regulation could then lead to more frequent use of negative parenting (Brody & Ge, 2001). Likewise, a parent's own history of depression could not only place the child directly at risk for such problems but might also do so through the parent's interactions with the child (e.g., Jacob & Johnson, 1997). Again, such direct and indirect causal mechanisms were not examined in this study. Likewise, the present results are correlational in nature and do not examine possible causal mechanisms in the associations between parenting practices and child psychopathology.

Furthermore, our sampling strategy was designed to recruit a high-risk sample as part of a larger project that included more antisocial youth than would be typical in an unselected community sample. Therefore, the results of our study may not be generalizable to the population of youth in the age group under investigation. It should also be noted that our conceptualization of parenting practices is based on the particular approach used to assess parenting in this study, so a broader range of parenting constructs should be considered in future research. Similarly, because the assessment relied on parent and child reports of the parenting practices of interests and because the APQ does not include any validity scales, we are left to consider the reports of the perceptions that parents and children wanted to convey about parenting practices in their homes rather than to be certain that the reports fully reflected the types of parenting behaviors that actually occurred. Indeed, previous research has shown only a moderate correlation between survey-based reports of parenting by parents and observer ratings of parenting (see Zaslow et al., 2006 for review).

In addition, the magnitude of many of the correlations found in the present study was relatively small as was the sample size. We opted to consider not only the statistical significance of the correlations found in the present study but their effect sizes as well. Because of the small sample in the present study, the use of a more stringent level of *alpha* would have led to limited detection of effects. The results of this study should be interpreted in light of the correlational nature of the results, the low effect sizes for some of the findings, and the small sample size.

Finally, despite the apparent importance of child perception of parenting practices in predicting child functioning, child report is limited in that developmentally, children at or below a certain age cannot be expected to provide reliable reports of parenting or their own functioning (Kamphaus & Frick, 2005), that is, the utility of youth reports of parenting practices may be confined to a particular age group.

However, the limited age range of participants and sample size in this study did not allow for this issue to be addressed.

Despite these limitations, the results suggest that assessments of parenting practices should also include the child's perception of such practices. It is important, though, that the child be at a developmental level (i.e., approximately age 9; Frick et al., 1999; Shelton et al., 1996) that would likely yield valid reports. The potential usefulness of child reports of parenting practices found in the present study is somewhat in contrast to previous research for children from preadolescence to later adolescence. A previous study demonstrated that parental reports of both negative and positive parenting practices were most clearly associated with child conduct problems prior to adolescence (i.e., ages 8-12), with parent reports of parental involvement still being related to child conduct problems during adolescence (i.e., ages 13-17; Frick et al., 1999). One possibility for this discrepancy could be the difference in samples. The clinic-referred sample of youth in the previous study may have been more likely to underreport some of their behavioral problems but may have still reported problems in their relationships with their parents, thus attenuating the relation between child reports of parenting and externalizing or internalizing problems.

Although these discrepant findings need to be reconciled in future research, the present study suggests that the child's perception of parenting may not only be a useful indicator of his or her current level of externalizing problems but may also foretell the child's later involvement in delinquent activities. In addition to the assessment implications noted above, the present findings suggest that it is important that parenting-based cognitive-behavioral interventions continue to include strategies to increase parents' involvement in their child's activities and their use of positive reinforcement, as well as to target negative parenting practices. Furthermore, beginning with preadolescents, it may also be important to note how the child perceives the positive and negative strategies used by his or her parents, which could then lead to interventions regarding the quality of the parent-child communication and overall relationship. Aside from parents, the youth's perception of a positive connection to other adults could promote acceptance by the youth of positive adult/community values and decrease the likelihood of problematic behavioral and emotional functioning.

REFERENCES

- Barkley, R. A. (1997). *Defiant children: A clinician's manual for assessment and parent training* (2nd ed.). New York: Guilford.
- Blader, J. C. (2004). Symptom, family, and service predictors of children's psychiatric rehospitalization within one year of discharge. *Journal*

- of the American Academy of Child and Adolescent Psychiatry, 43, 440-451.
- Brody, G. H., & Ge, X. (2001). Linking parenting processes and self-regulation to psychological functioning and alcohol use during early adolescence. *Journal of Family Psychology, 15*, 82-94.
- Caron, A., Weiss, B., Harris, V., & Catron, T. (2006). Parenting behavior dimensions and child psychopathology: Specificity, task dependency, and interactive relations. *Journal of Clinical Child and Adolescent Psychology, 35*, 34-45.
- Cashel, M. L. (2003). Validity of self-reports of delinquency and social-emotional functioning among youth on probation. *Journal of Offender Rehabilitation, 37*, 11-23.
- Dadds, M. R., Maujean, A., & Fraser, J. A. (2003). Parenting and conduct problems in children: Australian data and psychometric properties of the Alabama Parenting Questionnaire. *Australian Psychologist, 38*, 238-241.
- Dallaire, D., Pineda, A., Cole, D., Ciesla, J., Jacquez, F., LaGrange, B., et al. (2006). Relation of Positive and Negative Parenting to Children's Depressive Symptoms. *Journal of Clinical Child and Adolescent Psychology, 35*, 313-322.
- Dishion, T. J., Patterson, G. R., Stoolmiller, M., & Skinner, M. L. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology, 27*, 172-180.
- Elgar, F. J., Waschbusch, D. A., Dadds, M. R., & Sigvaldason, N. (2007). Development and validation of a short form of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies, 16*, 243-259.
- Elliott, D. S., & Ageton, S. R. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review, 45*, 95-110.
- Elliott, D. S., & Huizinga, D. (1984). *The relationship between delinquent behavior and ADM problems*. Boulder, CO: Behavioral Research Institute.
- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies, 15*, 597-616.
- Forehand, R., & Long, N. (2001). *Parenting the strong-willed child*. Chicago: Contemporary Books.
- Frick, P. J., Christian, R. E., & Wootton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification, 23*, 106-128.
- Frick, P. J., Kimonis, E. R., Dandreaux, D. M., & Farrell, J. M. (2003). The four-year stability of psychopathic traits in non-referred youth. *Behavioral Sciences and the Law, 21*, 713-736.
- Gadow, K. D., & Sprafkin, J. (1995). *Adolescent supplement to the child symptom inventories manual*. Stony Brook, NY: Checkmate Plus.
- Guerra, N. G., & Williams, K. R. (2006). Ethnicity, youth violence, and the ecology of development. In N. G. Guerra & E. P. Smith (Eds.), *Preventing youth violence in a multicultural society* (pp. 17-45). Washington, DC: American Psychological Association.
- Hauser, R. M., & Featherman, D. L. (1977). *The process of stratification: Trends and analyses*. New York: Academic Press.
- Hawes, D. J., & Dadds, M. R. (2006). Assessing parenting practices through parent-report and direct observation during parenting-training. *Journal of Child and Family Studies, 15*, 555-568.
- Huizinga, D., & Elliott, D. S. (1986). Reassessing the reliability and validity of self-report delinquency measures. *Journal of Quantitative Criminology, 2*, 293-327.
- Jacob, T., & Johnson, S. L. (1997). Parent-child interaction among depressed fathers and mothers: Impact on child functioning. *Journal of Family Psychology, 11*, 391-409.
- Kamphaus, R. W., & Frick, P. J. (2005). *Clinical assessment of child and adolescent personality and behavior* (2nd ed.). New York: Springer.
- Kaufman, A. S., & Kaufman, N. L. (1990). *Kaufman Brief Intelligence Test manual*. Circle Pines, MN: American Guidance Service.
- Klein, D. N., Dougherty, L. R., & Olino, T. M. (2005). Toward guidelines for evidence-based assessment of depression in children and adolescents. *Journal of Clinical Child and Adolescent Psychology, 34*, 412-432.
- Krueger, R. F., Schmutte, P. S., Caspi, A., Moffitt, T. E., Campbell, K., & Silva, P. A. (1994). Personality traits are linked to crime among males and females: Evidence from a birth cohort. *Journal of Abnormal Psychology, 103*, 328-338.
- Lahey, B. B., Applegate, B., Barkley, R. A., Garfinkel, B., Kerdyk, J., Frick, P. J., et al. (1994). DSM-IV field trials for oppositional defiant disorder and conduct disorder in children and adolescents. *American Journal of Psychiatry, 151*, 1163-1171.
- Locke, L. M., & Prinz, R. J. (2002). Measurement of parental discipline and nurturance. *Clinical Psychology Review, 22*, 895-930.
- Loeber, R., & Dishion, T. J. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin, 94*, 68-99.
- McNeil, C. B., Eyberg, S., Eisenstadt, T. H., Newcomb, K., & Funderburk, B. (1991). Parent-child interaction therapy with behavior problem children: Generalization of treatment effects to the school setting. *Journal of Clinical Child Psychology, 20*, 140-151.
- Piacentini, J. C., Cohen, P., & Cohen, J. (1992). Combining discrepant diagnostic information from multiple sources. *Journal of Abnormal Child Psychology, 20*, 51-63.
- Reynolds, C. R., & Kamphaus, R. W. (1992). *Behavioral assessment system for children*. Circle Pines, MN: American Guidance Service.
- Shaffer, D., Fisher, P., Lucas, C. P., Dulcan, M. K., & Schwab-Stone, M. E. (2000). NIMH Diagnostic Interview Schedule for Children Version IV (NIMH DISC-IV): Description, differences from previous versions, and reliability of some common diagnoses. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 28-38.
- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-aged children. *Journal of Clinical Child Psychology, 25*, 317-329.
- Silverman, W. K., & Ollendick, T. H. (2005). Evidence-based assessment of anxiety and its disorders in children and adolescents. *Journal of Clinical Child and Adolescent Psychology, 34*, 380-411.
- Zaslow, M. J., Weinfeld, N. S., Gallagher, M., Hair, E. C., Ogawa, J. R., Egeland, B., et al. (2006). Longitudinal prediction of child outcomes from differing measures of parenting in a low-income sample. *Developmental Psychology, 42*, 27-37.