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Linking Family Characteristics with Poor Peer Relations: The Mediating Role of Conduct Problems

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Abstract

Parent, teacher, and peer ratings were collected for 75 grade school boys to test the hypothesis that certain family interaction patterns would be associated with poor peer relations. Path analyses provided support for a mediational model, in which punitive and ineffective discipline was related to child conduct problems in home and school settings which, in turn, predicted poor peer relations. Further analyses suggested that distinct subgroups of boys could be identified who exhibited conduct problems at home only, at school only, in both settings, or in neither setting. Boys who exhibited cross-situational conduct problems were more likely to experience multiple concurrent problems (e.g., in both home and school settings) and were more likely than any other group to experience poor peer relations. However, only about one-third of the boys with poor peer relations in this sample exhibited problem profiles consistent with the proposed model (e.g., experienced high rates of punitive/ineffective home discipline and exhibited conduct problems in home and school settings), suggesting that the proposed model reflects one common (but not exclusive) pathway to poor peer relations.

Children who are rejected by their peers during the grade school years are at risk for continuing adjustment difficulties and a number of negative adolescent outcomes, such as school failure and delinquency (cf. Parker & Asher, 1987). Recently, investigators have begun to speculate about the etiology of peer difficulties, focusing particularly on the ways in which parental characteristics and family interaction patterns may influence children's social development and peer adjustment (cf. Parke, et al., 1989). Since many peer-rejected children display high rates of impulsive, non-compliant and aggressive behaviors in their peer interactions (cf. Coie, Dodge & Kupersmidt, 1990), one oft-stated hypothesis is that family characteristics that foster or support child conduct problems may contribute to peer difficulties (cf. Putallaz & Heflin, 1990).

Extensive research has demonstrated associations between certain family characteristics and high rates of child conduct problems. In particular, unsuitable discipline practices (e.g., frequent and harsh punishment; inconsistent and ineffective limit setting) and family discord (e.g., marital conflict and parental hostility) appear more commonly in families of conduct problem children than in families of nonproblematic children (Becker, Peterson, Hellmer, Shoemaker & Quay, 1959; Emery, 1982; Loeber & Dishion, 1984; Patterson, 1986). Yet, relatively few studies have included concurrent measures of children's peer relations in order to elucidate the nature and extent of the association between such negative family characteristics and poor peer relations.

Patterson, Dishion and Bank (1984) were among the first to test a model empirically linking inconsistent discipline and family discord (e.g., observer ratings of maternal inconsistency and direct observations of negative sibling interactions) to child fighting (as reported by mothers, teachers and peers) and peer difficulties (ratings of “getting along with others” provided by child, teacher and peers). A path analysis suggested that their proposed model, in which a link between negative family characteristics and child social difficulties was mediated by child fighting, provided a good fit to the data. In a later study, Pettit, Dodge, and Brown (1988) found that maternal reports of negative family experiences (e.g., exposure to deviant aggressive models, asocial maternal values, harsh discipline, and low levels of prosocial instruction) accounted for a significant amount of variance (34%) in teacher ratings of preschool children’s social skills. Taken together in a multiple regression analysis, these family experiences did not account for significant amounts of variance in teacher ratings of child aggression at school nor in peer sociometric ratings; however, a few univariate correlations were significant. Maternal reports of harsh discipline correlated significantly with teacher-rated child aggression ($r = .28$) and maternal expectations for and endorsement of child aggression correlated significantly with peer sociometric ratings (r ’s = $-.25$ and $-.30$, respectively).

These studies certainly suggest that negative family experiences, particularly punitive and ineffective discipline and family discord, can contribute to poor peer relations by fostering child conduct problems. This study was designed to replicate these findings and to expand upon them in several ways. First, whereas previous studies focused only on maternal characteristics, we included reports from fathers as well as mothers. Prior research suggests that paternal influences on child socialization may differ from maternal influences in nature and degree (MacDonald & Parke, 1984). Second, an assessment of marital discord (in addition to measures of discipline practices and parental attitudes) was included. Marital discord is often associated with child conduct problems (cf. Emery, 1982), although it remains unclear whether marital discord contributes directly to child problems or only indirectly by decreasing the consistency and effectiveness of parental discipline practices (Oltmanns, Broderick & O’Leary, 1977). Third, conduct problems were assessed separately in home and school settings. In previous research, teacher- and parent-ratings of conduct problems have been significantly but only moderately correlated (r ’s ranging from .32 to .62; Emery & O’Leary, 1984; Patterson, et al. 1984; Touliatos & Lindholm, 1981). It was anticipated that peer problems might be more highly related to teacher-rated than to parent-rated conduct problems, given the shared school context of teacher and peer ratings. Fourth, extending beyond the regression techniques used in prior studies to evaluate the general predictive strength of the proposed model, an attempt was made to identify and compare subgroups of boys who showed cross-situational (home and school) conduct problems with boys who showed problematic conduct in only one of these settings. Previous research suggests that boys with cross-situational problems may suffer more severe and diverse concurrent and future maladjustment and may come from families characterized by less effective and more coercive discipline practices, more marital conflict, and poorer problem-solving skills (Loeber, 1982; Loeber & Dishion, 1984; Schacher, Rutter & Smith, 1981). Finally, recent research suggests that there may be multiple pathways to peer rejection, and that only about half of all rejected children exhibit conduct problems at school (Bierman, 1986; French, 1988). Hence, analyses were undertaken to test the hypothesis that the proposed model would apply to only about half of the peer-rejected boys in the sample.

In this study, the parents of gradeschool boys completed questionnaires regarding their use of punitive discipline, the effectiveness of their discipline strategies, their marital satisfaction, their feelings of hostility, and their son’s behavior problems at home. Teachers and peers rated the boys’ conduct problems at school, and peers provided both positive (“like most”) and negative (“like least”) sociometric ratings. Correlations and path analyses

were conducted to replicate previous findings and to test the hypothesis that punitive and ineffective discipline, marital dissatisfaction, and parental hostility would be associated with child conduct problems in home and school settings which, in turn, would predict poor peer relations.

Additional hypotheses were that: (1) maternal and paternal contributions might differ in nature and degree, (2) marital discord would be related to conduct problems, but this relationship might be mediated by the disruptive effects of marital dissatisfaction on parental discipline practices, (3) peer relations would be more strongly affected by school-based conduct problems than by home-based conduct problems, (4) boys with cross-situational (home and school) patterns of conduct problems would display a greater diversity of concurrent adjustment problems, would experience more punitive and less effective discipline, and would experience more peer problems than would nonproblematic boys or boys who exhibited conduct problems in one setting only, and (5) unsuitable discipline practices, family conflict, and cross-situational conduct problems would characterize only about half of the boys who had poor peer relations.

METHODS

Subjects

The parents of 75 boys participating in a school-based study of peer relations (74 mothers, 52 fathers) agreed to an interview after receiving a general letter describing the study. In 8 of the 20 cases in which the mother alone was interviewed, she was divorced and living alone; in the other 12 cases, the father did not attend the interview. The boys ranged in age from 6 years, 1 month to 12 years 1 month, with a mean age of 8 years 5 months. Most of the boys (72% of the sample) were in grades 2-4; a few were in grade 1 (10%) or grades 5-6 (18%). The sample was predominantly white and represented a range of SES levels, reflecting the college community and surrounding rural areas from which it was drawn.³

Measures

Family Characteristics—Items were drawn from the *Parent Behavior Inventory* (PBI, Love & Kaswan, 1974) to represent maternal and paternal perceptions of two dimensions of their parenting: (1) the frequency with which they used punitive discipline practices and (2) the effectiveness of the discipline strategies they employed. The punitive discipline scale included 3 items regarding the frequency of punishment (e.g., “How often do you punish your child for fighting?”), 3 items regarding the use of physically aggressive punishments (e.g., “How often do you spank him so that he really feels it?”), and 5 items regarding the use of verbally aggressive punishments (e.g., “How often do you yell at him?”). Parents reported on each item by indicating the frequency of parental behavior on a 0 (never) to 5 (always) scale. Cronbach’s alpha for this scale was .82 for mothers and .75 for fathers. The effectiveness scale was composed of 3 items regarding the perceived effectiveness of discipline (e.g., “To what extent does your punishment make your child behave better?”). Cronbach’s alpha for this scale was .50 for mothers and .52 for fathers. Although parental reports of their discipline strategies are not without limitations (Patterson & Stouthamer-Loeber, 1984), previous research by Love and Kaswan (1974) revealed that these items were effective in discriminating differences between the parental behaviors of clinic-referred and non-referred children.

³Letters inviting families to participate were originally sent to 396 boys who were involved in a school study of children’s peer relations. Financial considerations enabled interviews with the first 75 families to volunteer. Although the possibility exists that this subsample did not adequately represent the larger school sample, a series of chi-square analyses revealed no differences between the teacher- and peer-ratings received by boys whose families did or did not participate in the home interviews of the present study.

Marital satisfaction was measured with the *Short Marital Adjustment Test* (SMAT) developed by Locke and Wallace (1959). This 15-item self-report questionnaire has been shown to distinguish harmonious from disturbed marriages reliably and has been used successfully in previous research examining relations between marital satisfaction and child aggression in home and school settings (Locke & Wallace, 1959; Loeber & Dishion, 1984).

To assess parental hostility, each parent completed the 28 items comprising the aggression factor of the *Buss-Durkee Hostility Inventory* (BDHI, Buss & Durkee, 1957). Items such as "I often feel like breaking things" were answered true or false by parents. This aggression scale score has demonstrated adequate test-retest reliability ($r = .82$ over 5 weeks) (Buss, 1961), and in previous research, correlated significantly with behavioral ratings of interpersonal aggression (Knoll, 1970).

Child Problems at Home—Parents completed the *Behavior Problem Checklist* (BPC) developed by Quay and Peterson (1975), on which they noted the presence or absence of 17 behaviors comprising the conduct problem scale (e.g., fighting, temper tantrums, disruptive and attention-seeking behaviors). Parents also described their son with the *Family Adjective Rating Scale* (FARS; Love & Kaswan, 1974) which included 5 negative items (e.g., rude, angry), each rated on an 8-point scale (from 0 = never to 8 = always). Conduct problem scores and negative descriptions were significantly correlated ($r = .60$ for maternal, $r = .58$ for paternal ratings), as were maternal and paternal ratings ($r = .65$ for conduct problems, $r = .53$ for negative descriptions). Hence, these 4 scores were averaged to provide an index of boys' conduct problems in home settings.⁴

Parent ratings of concurrent problems were also acquired from the BPC, on which they rated the presence or absence of 14 behaviors comprising the personality problem scale (e.g., self-conscious, cries easily, shy, hypersensitive), 8 behaviors comprising the immaturity scale (e.g., preoccupied, inattentive, lazy) and 6 behaviors comprising the socialized delinquency scale (e.g., stays out late, steals, belongs to a gang).⁵ As with boys' conduct problem scores, maternal and paternal ratings on each of these problem scales were averaged.

Child Problems at School—Child behavior at school was assessed with an abridged version of the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub & Neale, 1976) which contained 24 items, 10 comprising the aggression scale (e.g., "Those who start a fight for no reason"), 8 comprising the withdrawal scale (e.g., "Those who are too shy to make friends easily") and 5 comprising the likability scale (e.g., "Those who are especially nice").⁶ Scores were attained by dividing the number of peer nominations subjects received by the number of raters (N 's ranged from 7 to 14) and standardizing these scores within each class. Teachers rated each item on a 4-point scale (0 = not at all characteristic to 3 = very characteristic); these scores were summed and standardized within class.

Teachers also completed the *Abbreviated Teacher Rating Scale* (ATRS; Conners, 1969) to provide an overall index of classroom problem behaviors. This scale consisted of ten behavioral items, each rated on a 4-point scale of severity. Teacher ARTS scores were also standardized within class.

⁴paternal ratings were not available for 20 of the boys; for these boys, maternal ratings alone were used to estimate conduct problems in the home.

⁵The BPC has been revised recently, but the revised version was not available at the time of the present data collection. Not surprisingly, rates of the behaviors on the socialized delinquency scale were very low for this normative sample of grade school boys; hence, this scale was not included in subsequent analyses.

⁶Nine items were deleted from the original PEI on the basis of lower factor loadings in the original Pekarik, et al. (1976) study to facilitate more efficient assessments with elementary students. Pilot testing revealed a little difference between aggression ratings based upon this abridged version of the PEI compared to ratings based upon the original 35-item inventory.

The three scores of school conduct problems (teacher ratings on the PEI and ATRS; peer-ratings on the PEI) were significantly intercorrelated ($r = .64$ between the two teacher rating scores; r 's = .46, .57 between teacher and peer ratings). Hence, these three scores were averaged to provide an index of boys' conduct problems in school settings. Similarly, teacher and peer ratings of withdrawal and likability were averaged.

Poor Peer Relations—Peer relations were assessed using the peer nomination technique, in which boys were asked to nominate 1-3 male classmates they liked most and 1-3 they disliked (Hymel & Rubin, 1985). Nominations were summed, divided by the number of raters, and standardized within each class. Positive and negative nominations were moderately (inversely) correlated in this sample ($r = -.55$). Standardized negative nomination scores were subtracted from positive nominations to provide a social preference score (Coie, Dodge & Coppotelli, 1982).

Procedure

Home Interviews—Undergraduate assistants met with the parents in their homes to explain the nature of the study and to obtain informed consent. After describing the study and answering any questions, the research assistants distributed the PBI, BDHI, SMAT, FARS, and BPC to the parents and then collected the questionnaires when the parents were finished. The parents completed their questionnaires independently and the entire session lasted approximately 45 minutes.

School Information—Target boys and classmates who had received parental permission to participate in the school survey were interviewed individually by an undergraduate assistant at their schools. Each boy was shown a roster of all participating classmates and asked to name each one. The interviewer read aloud each PEI item, asking the boys to name any classmates on the roster who fit the description. The interviewer then requested one to three positive and negative nominations from the roster. Teacher ratings were distributed at that time and collected approximately two weeks later. Separate groups of assistants conducted the home and school interviews to assure that information about a child's status in one setting could not influence the interviews conducted in the other settings.

RESULTS

Correlations Among Measures

First, the pattern of correlations among the various measures of maternal and paternal perceptions of family interactions were examined and are presented in Table I. Between-rater correlations were moderate and significant for each of the dimensions except hostility. Thus, in general, mothers and fathers validated each other's ratings of punitive and effective discipline, and marital satisfaction. However, their ratings were not identical, suggesting that mothers and fathers vary in how they evaluate their family interactions. In contrast, within-rater correlations between the identified dimensions of punitive and effective discipline, parental hostility and marital satisfaction were nonsignificant for both mothers and fathers, supporting the conceptualization of these dimensions as distinct constructs.

A second set of correlations, computed between maternal and paternal ratings and child problems (conduct problems at home and school, poor peer relations) are presented in Table II. Maternal and paternal ratings of punitive and effective discipline were systematically related to conduct problems at home, as were low maternal ratings of marital satisfaction. However, only maternal ratings of parental practices were related to conduct problems at school and to peer social preference scores.

A third set of correlations examined relations among conduct problems at home and school and positive and negative peer nominations. Conduct problems at home were significantly correlated with conduct problems at school ($r = .49, p < .001$). Whereas home conduct problems were significantly but mildly related to peer social preference ratings ($r = -.25, p < .05$), school conduct problems were quite strongly related to peer ratings ($r = -.56, p < .001$).

Path Analyses

Path analyses were conducted to evaluate the degree of support for the proposed mediational model in which relations between family characteristics and children's peer relations were mediated by the children's display of conduct problems in home and school settings. Maternal and paternal self-reports of their family interactions were considered in separate path analyses to determine whether different patterns of influence on child socialization would emerge. The results for both of these analyses are presented in Figure 1 (coefficients for paternal ratings are in parentheses next to the coefficients for maternal ratings). Significant pathways emerged for both mothers and fathers, supporting the hypothesized associations between punitive and ineffective discipline, child conduct problems in home and school settings, and poor peer relations. With discipline practices included in this model, however, maternal marital satisfaction no longer made a significant contribution to the prediction of child conduct problems.⁷

Group Comparisons

Next, to explore the clinically relevant predictive utility of the proposed model, four subgroups of boys were identified and compared: (1) boys whose conduct problem scores in both home and school settings fell in the upper 20% of the sample ($N = 10$), (2) boys who scored in the upper 20% of the sample in home conduct problems but below the sample mean in school conduct problems ($N = 5$), (3) boys who scored below the mean in home conduct problems but in the upper 20% in school conduct problems ($N = 6$), and (4) boys who scored below the mean in conduct problems in both settings ($N = 27$).

The probability that boys in each of these groups would experience high rates of punitive and ineffective family discipline practices and would exhibit concurrent home and school behavior problems and poor peer relations was calculated and compared using the z-test (Gottman, 1979).⁸

As shown in Table III, boys who exhibited high rates of conduct problems at home were more likely than nonproblematic boys to experience punitive and ineffective discipline and to exhibit concurrent personality and immaturity problems. Boys who exhibited high rates of conduct problems at school were at increased risk (relative to non-problematic boys and boys who showed conduct problems at home only) to exhibit poor social skills at school (as reflected by low scores on the PEI Likability Scale) and to experience poor peer relations (as reflected in low social preference scores).

⁷Since parents provided ratings for the first two sets of variables in the path analysis (e.g., parental practices and conduct problems) two additional analyses were conducted to determine whether rater bias might be accounting for significant amounts of shared variance. When the path analysis was rerun using maternal reports of parental practices and paternal ratings of conduct problems, the pattern of significant findings remained the same (path coefficients were .45 for punitive discipline and $-.22$ for effective discipline). Similarly, when paternal reports of parental practices were included in a path analysis with maternal ratings of conduct problems, the resulting path coefficients of .28 for punitive discipline and $-.24$ for effective discipline reflected the same pattern of significance as that reported for the path analysis using combined maternal and paternal reports of conduct problems.

⁸In calculating these probabilities, boys were considered "high" on a problem dimension if they fell into the upper 20% of the sample on that dimension.

Boys who showed high rates of cross-situational conduct problems were distinguished from the other conduct problem groups by the diversity of their concurrent problems (e.g., they exhibited increased risk for concurrent problems in both home and school settings) and by the increased likelihood (compared to all other groups) that they would experience poor peer relations. Indeed, a full 70% of the boys who exhibited cross-situational conduct problems had social preference scores in the problematic range (compared to 33% of the boys with conduct problems in school only and 0-7% of the boys who did not display school conduct problems).

Pathways to Poor Peer Relations

To examine the extent to which boys with poor peer relations were adequately described by the proposed model, all boys having very low social preference scores (in the lowest 20% of the sample) were identified. Of these 18 boys, 9 (50%) had high rates of conduct problems at school, a figure consistent with previous research on aggressive and non-aggressive subgroups of rejected boys (cf. French, 1988). Of these 9 boys, 7 showed high rates of conduct problems at home, and 6 additionally experienced high rates of punitive and ineffective discipline, suggesting that the proposed model provided an excellent fit for about one-third of the boys with poor peer relations in this sample, and at least a partial fit for about half of the boys with poor peer relations.

DISCUSSION

Our findings support a mediational model in which punitive and ineffective discipline are associated with poor peer relations when they contribute to (or support) the display of conduct problems in home and school settings. These findings are consistent with those reported by Patterson et al. (1984), despite considerable methodological differences in the two studies. By including paternal and maternal reports, it was possible to document considerable similarities in the nature of the influence exerted by each of these parents on the socialization of boys' conduct. However, the strength of influence appears different, with maternal (and not paternal) reports of discipline practices correlating significantly with boys' school conduct problems and social preference scores. Previous investigators have similarly documented higher rates of child interaction and conflict for mothers than for fathers (Montemayor, 1982) and stronger relations between maternal child-rearing practices (compared to paternal practices) and conduct problems. For example, Martin and Hetherington (1971) reported that the families of aggressive boys were characterized by harsh punishment by both mothers and fathers and low acceptance by mothers only, and Olweus (1980) found that boys' aggression at grade 6 was strongly predicted by mothers' and fathers' use of harsh discipline, but only mothers' permissiveness for aggression and negativism.

The contribution of marital discord to conduct problems was only partially supported in the present analyses. Whereas maternal ratings of marital satisfaction were moderately correlated with conduct problems at home, fathers' marital satisfaction ratings were unrelated to conduct problems. Furthermore, the relations between maternal marital satisfaction and conduct problems were no longer significant when considered with maternal discipline practices in the path analyses, suggesting that disruptions in discipline practices may mediate the relation between maternal marital dissatisfaction and child conduct problems (Emery & O'Leary, 1984; Oltmanns et al., 1977).

In this study, neither maternal nor paternal hostility showed a significant relation to child conduct problems. Perhaps deviant personality characteristics such as high hostility are more prevalent among parents of children with extreme behavioral problems than among parents of children from this normative sample (e.g., McCord, McCord & Zola, 1959).

Alternatively, other aspects of parental psychopathology such as maternal depression may have a more detrimental effect on parenting than does hostility. For example, in another normative sample of adolescents, Forehand, Long, Brody, & Fauber (1986) found that maternal ratings of depression were significantly correlated with teacher-rated conduct problems at school ($r = .27$).

Our results underscore the importance of measuring conduct problems separately in home and school settings. A significant subgroup of boys (7% of the sample) had problems at home, yet not at school, whereas others (8% of the sample) behaved problematically at school but not at home, and 13% exhibited conduct problems in both home and school settings. In this study, parental reports of punitive and ineffective discipline differentiated boys with home conduct problems from non-problematic boys. In contrast to Loeber and Dishion (1984), however, these measures did not discriminate boys with home problems alone from boys with cross-situational problems. Perhaps the extensive interview and observation procedures used by Loeber and Dishion (1984) provided more precise measurement of parental practices and discipline consistency than did the self-report questionnaires we used. However, it is also quite possible that factors other than parental discipline foster the generalization of conduct problems from home to school settings (or the emergence of conduct problems in school settings). In particular, contextual features of the school setting, such as the availability of negative peer models, the frequency of coercive peer responding, or the adequacy of teacher monitoring and contingent management of disruptive or aggressive behavior may be important (cf. Parke & Slaby, 1983; Patterson, Littman & Bricker, 1967; Wahler, 1975). Given the increased developmental risks that may be associated with cross-situational conduct problems (cf. Loeber, 1982), further research on these issues is clearly warranted.

Finally, it is clear that the link between punitive and ineffective discipline practices and poor peer relations examined here represents a common but not exclusive pathway. Theorists have speculated that there may be several different modes of transmission whereby parents influence the social adjustment and peer relations of their offspring (Putallaz & Herin, 1990; Parke, et al., 1989). For example, high rates of parental emotional expressiveness, and positive, reflective and responsive interaction may foster the development of children's emotional encoding and decoding skills and may increase their interpersonal responsivity to peers (MacDonald & Parke, 1984; Putallaz, 1987). Less directly, parents may foster social skill development by arranging and supervising peer interactions for their young children (Parke, et al., 1989). To further explore the range of processes that may link family factors with children's peer relations, future research may benefit from the inclusion of measures such as parent-child communication and play interactions and parental management of children's peer interactions, along with assessments of parental discipline practices.

Future research is also needed to determine the predictive value of the proposed model concerning family influences on peer relations. Within the model, there is an implicit assumption that parental discipline practices exert a causal and predictive influence on conduct problems and poor peer relations which emerge subsequently in school settings. Although cross-sectional data such as that collected here may be consistent with such a model, longitudinal data are required to support any causal inferences. Indeed, it may be that the developmental process is transactional and the development of peer problems fosters disruptive child conduct, eliciting more frequent and harsh parental discipline, as well as the reverse causal process. Certainly, the positive findings of the present cross-sectional study suggest that future, longitudinal studies exploring the association between parental discipline and child peer relations are well warranted.

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Fig. 1. Path analysis reflecting the association among maternal (and paternal) ratings of family interactions, their sons' conduct problems at home and at school, and their sons' peer relations.

Table 1

Correlations Among Maternal and Parental Reports of Family Characteristics^a

Measures by construct	Measures							
Discipline	2	3	4	5	6	7	8	
1. Maternal punitive	<u>.54</u> ^b	.06	-.10	-.07	-.10	-.02	.14	
2. Paternal punitive		.10	.05	.15	-.21	-.04	.22	
3. Maternal effectiveness			<u>.33</u> ^c	.07	-.10	.01	-.10	
4. Paternal effectiveness				.01	-.06	<u>.29</u> ^d	-.14	
Marital satisfaction								
5. Maternal satisfaction					<u>.46</u> ^b	-.09	-.10	
6. Paternal satisfaction							-.22	
Hostility								
7. Maternal hostility							<u>-.10</u>	
8. Paternal hostility								

^aNote: Underlining indicates correlations between raters on the same measure.^b $p < .001$.^c $p < .01$.^d $p < .05$.

Table II

Correlations Between Maternal and Parental Ratings of Family Characteristics and Child Conduct Problems and Sociometric Nominations

Measures of family characteristics	Measures of child adjustment		
	Home conduct	School conduct	Social preference
Discipline			
Maternal punitive	.49 ^a	.25 ^b	-.02
Paternal punitive	.34 ^b	.13	-.08
Maternal effectiveness	-.25 ^b	-.22 ^c	.19 ^c
Paternal effectiveness	-.25 ^b	-.10	.17
Marital satisfaction			
Maternal satisfaction	-.28 ^b	-.03	.00
Paternal satisfaction	.00	.18	.07
Hostility			
Maternal hostility	.12	.15 ^d	-.01
Paternal hostility	.20 ^d	-.09	-.05

^a $p < .001$.

^b $p < .01$.

^c $p < .05$.

^d $p < .10$.

Table III

Probabilities of Discipline Practices, Concurrent Home and School Problems Among Boys Showing Various Cross-Situational Patterns of Conduct Problems

Family and child characteristics	Pattern of conduct problems			
	Neither setting (N = 27)	Home only (N = 5)	School only (N = 6)	Home and School (N = 10)
Discipline practices				
Punitive discipline	.11 ^a	.40 ^{b,c}	.17 ^{a,b}	.60c
Ineffective discipline	.15 ^a	.60 ^b	.33 ^{a,b}	.50b
Home problems				
BPC immaturity	.04 ^a	.60 ^b	.17 ^a	.60b
BPC personality	.22 ^a	.80 ^b	.40 ^{a,b}	.17a
School problems				
PEI withdrawal	.19	.20	.30	.33
PEI (un)likability	.11 ^a	.20 ^a	.50 ^b	.60b
Peer problems				
Low social preference	.07 ^a	.00 ^a	.33 ^b	.70c

^aNote: Probabilities with different superscripts are significantly different at the $p < .05$ by the z-test. These probabilities represent the proportion of boys exhibiting each pattern of conduct problems who are also characterized by high scores on the specified family discipline practices or concurrent child problems.

^bNote: Probabilities with different superscripts are significantly different at the $p < .05$ by the z-test. These probabilities represent the proportion of boys exhibiting each pattern of conduct problems who are also characterized by high scores on the specified family discipline practices or concurrent child problems.

^cNote: Probabilities with different superscripts are significantly different at the $p < .05$ by the z-test. These probabilities represent the proportion of boys exhibiting each pattern of conduct problems who are also characterized by high scores on the specified family discipline practices or concurrent child problems.