

Family Functioning and Risk Behaviors: Influences on Adolescent Delinquency

By: [Craig S. Cashwell](#) and N. A. Vacc

Cashwell, C. S., & Vacc, N. A. (1996). Family functioning and risk behaviors: Influences on adolescent delinquency. *The School Counselor*, 44, 105-114.

Made available courtesy of American School Counselor Association: <http://www.schoolcounselor.org/>

*****Reprinted with permission. No further reproduction is authorized without written permission from the American School Counselor Association. This version of the document is not the version of record. Figures and/or pictures may be missing from this format of the document.*****

Article:

Since the turn of the century, juvenile delinquency, which is defined as antisocial or criminal behavior by children or adolescents (Morris, 1980), has been an important area of study. However, never has the study of delinquency been more important than the present, as schools seek promising paradigms for reaching American youth. An essential foundation for the development and evaluation of preventive interventions is determining the nature, extent, and causes of delinquent behavior.

The current study examined how family relationships and risk behaviors relate to self-reported delinquency among adolescents. The primary goals were to determine the amount of variance in delinquent behavior that can be accounted for by risk behaviors, and to examine how a modified version of the coercion theory of delinquent behavior fits the data.

Coercion theory, developed by Patterson (1982,1986), suggests that family environment influences an adolescent's interpersonal style, which in turn influences peer group selection. A coercive interpersonal style is characterized by antisocial and noncompliant behavior (Patterson, DeBaryshe, & Ramsey, 1989). Peers with a more coercive interpersonal style tend to become involved with each other, and this relationship is assumed to increase the likelihood of being involved in delinquent behavior. Thus, understanding the nature of relationships within the family, to include family adaptability, cohesion, and satisfaction, provides more information for understanding youth.

TESTED MODEL

Figure 1 provides a graphic presentation of the model examined in this study. The model posits that family functioning (a) influences the interpersonal style of an adolescent, (b) has a direct effect on an adolescent's involvement with deviant peers and delinquent behavior, and (c) has an indirect effect on peer group involvement mediated by the coercive interpersonal style of the adolescent. The suggested path of influence begins with family functioning and ends with child characteristics that determine success or failure within the peer group, all of which affect delinquent behavior. Accordingly, the variables investigated included family functioning, coercive interpersonal style, deviant peer involvement, and delinquent behavior.

FAMILY FUNCTIONING

Family functioning refers to the quality of interactions within a family system to include family cohesion, family adaptability, and communication (Olson, 1988; Olson et al., 1992; Olson, Sprenkle, & Russell, 1979; Olson & Wilson, 1982). The family influences an adolescent's interpersonal behaviors with the adolescent tending to replicate family patterns in peer relationships (Bell, Cornwell, & Bell, 1988; Olweus, 1980; Patterson, 1982, 1986; Patterson & Bank, 1989). Patterson's (1986) coercion theory, supported by empirical testing, suggested that disrupted family management skills lead to an adolescent developing a coercive and antisocial interpersonal style. This, in turn, leads to the adolescent's rejection by nondelinquent peers and to subsequent involvement with a group of deviant peers (Patterson & Bank, 1989).

Family behaviors, particularly parental monitoring and disciplining, seem to influence association with deviant peers throughout the adolescent period (Dishion, Patterson, Stoolmiller, & Skinner, 1991; Patterson & Dishion, 1985; Snyder, Dishion, & Patterson, 1986). As Dishion (1990) found, significant positive correlations exist between measures of disciplining and monitoring and peer relations indices. Structural equation modeling research has generally supported the theory that disruptive parenting practices are causally related to child antisocial behavior (Borduin, Pruitt, & Henggeler, 1986; Henggeler, Edwards, & Borduin, 1987; Patterson et al., 1989; Patterson & Stouthamer-Loeber, 1984; Simons, Whitbeck, Conger, & Conger, 1991). Larzelere and Patterson (1990) found that socioeconomic status, parental monitoring, and parental supervision accounted for 46% of the variance in delinquent behavior. Furthermore, the socioeco-nomic status variable only influenced delinquent behavior indirectly, mediated by the other variables in their model.

COERCIVE INTERPERSONAL STYLE

Patterson (1982,1986) found that children raised in a coercive environment generalize this coercive interpersonal style to relationships with peers. This coercive interpersonal style may lead to a rejection by conventional peer groups (Hymel, Rubin, Rowden, & LeMare, 1990; Roff, 1992), resulting in increased involvement with peers who share this aggressive and coercive interpersonal style (Dishion et al., 1991). Antisocial characteristics in the home are often generalized into the school setting (Ramsey, Patterson, & Walker, 1990) and from one peer setting to another (Coie & Kupersmidt, 1983). Thus, a deficit in social skills increases the likelihood of association with deviant peers (Patterson & Dishion, 1985). This rejection by conventional peers and subsequent involvement with deviant peers is a central component of coercion theory. Adolescents who self-report higher levels of delinquent behavior have been shown to report higher levels of aggression in their friendships (Giordano, Cernkovich, & Pugh, 1986; Patterson, Capaldi, & Bank, 1991).

Simons et al. (1991) reported that the presence of a coercive interpersonal style has a direct effect on the probability of involvement in delinquency, regardless of the type of peer associations. Also, aggression toward peers has been found to be a significant predictor of delinquency (Kupersmidt & Coie, 1990; Kupersmidt & Patterson, 1991; Roff, 1992; Roff & Wirt, 1984; Stattin & Magnusson, 1989).

DEVIANT PEER INVOLVEMENT

Considerable research findings exist to suggest that peers are influential in adolescent deviant behaviors (Brownfield & Thompson, 1991; Dishion et al., 1991; East, 1989; Hartup, 1983; Levine & Singer, 1988). In general, empirical studies have suggested that the peer group provides the social context for delinquent behavior (Agnew, 1991; Brownfield & Thompson, 1991; Elliott, Huizinga, & Ageton, 1985). Peers are believed to provide the adolescent with the attitudes, motivations, and rationalizations that support delinquent behavior, and they provide opportunities to engage in specific delinquent acts (Patterson et al., 1989).

There is a need, then, to study systematically the relationships between family functioning and delinquent behavior. Specifically, the current study addressed the (a) direct effect of family functioning (cohesion, adaptability, and satisfaction) on the interpersonal style of the adolescent, the adolescent's involvement with deviant peers, and the incidence of self-reported delinquent behavior; (b) the indirect effect of family functioning on peer group involvement mediated by the interpersonal style of the adolescent, and delinquent behavior mediated by the interpersonal style of the adolescent and deviant peer involvement; (c) the direct effect of interpersonal style on delinquent behavior; and (d) the indirect effect of interpersonal style on delinquent behavior mediated by deviant peer involvement. Finally, as Zaslow and Takanishi (1993) asserted, research with nonclinical samples of adolescents is needed.

METHOD

Participants

Data were gathered from 111 adolescents between the ages of 12 and 16. The participants were drawn from two nonclinical community agencies and one middle school. The participants were selected on the basis of consent to participate; no criteria of known previous delinquent behavior was used.

Instrumentation

Measures of family cohesion, family adaptability, family satisfaction, coercive interpersonal style, deviant peer involvement, and delinquent behavior were used. The data were gathered through self-reports, except for the measure of coercive interpersonal style, which was measured by staff and teacher report. Each instrument's reading level, which was calculated using Fry's Readability Graph (Fry, 1977), ranged between fourth and sixth grade.

Family Adaptability and Cohesion Evaluation Scales II (FACES II). FACES II (Olson et al., 1992) is a 30-item Likert-format instrument that measures the dimensions of family cohesion and family adaptability. The concurrent validity of FACES II, measured through correlation with other family instruments, has been calculated to be .93 (cohesion) and .79 (adaptability). Cronbach's alpha reliability levels have been measured at .87 (cohesion), .78 (adaptability), and .90 (total scale) (Olson et al., 1992). Scores on the cohesion measure range from 16, which indicates a low level of cohesion, to 80, which indicates a very connected family. Scores on the adaptability measure range from 14, which indicates a low level of adaptability in the family, to 70, which indicates a very flexible family.

Family Satisfaction Scale (FSS). The FSS (Olson et al., 1992) is a 14-item instrument designed to assess satisfaction with current levels of family cohesion and adaptability. The Cronbach's alpha for the scale is .92. The 5-week test-retest correlation for the total score was .75. Results of a previous factor analysis indicated that the FSS is unidimensional and, therefore, the total score (combining cohesion and adaptability) is most valid (every item loaded .55 or higher, Olson et al., 1992). Scores on the FSS range from 14, which indicates low family satisfaction, to 70, which indicates high family satisfaction.

Deviant Peer Involvement Measure (DPIM). Forty-one items were drawn from the Self-Report Delinquency Measure (SRDM; Hindelang, Hirschi, & Weis, 1981). The format of these items was then changed from a "Have you ever . . ." prefix to a "How many of your close friends have done each of the following things" prefix. The content validity of the selected items was established through consensus of an expert panel of juvenile court authorities. Using a Likert-type scale (0 = none to 4 = all), participants were asked to respond to how many of their close friends had engaged in any of the delinquent behaviors. An acceptable Cronbach's alpha reliability level ($r = .97$) was obtained in the current study. Scores on the DPIM range from 0, which indicates no involvement by any friends in any of the listed delinquent behaviors, to 164, which indicates that all friends are engaging in all of the listed delinquent behaviors.

Self-Report Delinquency Measure (SRDM). To measure delinquent behavior, the SRDM was used. Developed by Hindelang et al. (1981), this instrument consists of 69 items partitioned into five scales: Official Contact, Serious Crime, Delinquency, Drugs, and School and Family Offenses. The scale scores can be summed to provide one quantitative rating of self-reported delinquent behavior. In the current study, a count of the number of different offenses ever committed by a participant ("ever variety") was used to yield a single score. Hindelang et al. (1981) reported a Cronbach's alpha reliability coefficient that ranges from .86 to .93 for various subgroups (race, gender, socioeconomic status) with no "systematic or substantial variation as a function of demographic subgroup" (p. 81). The SRDM has been validated with a large and diverse sample pool and is relatively comprehensive in the types of acts it measures (Tolan, 1988). Scores on the SRDM range from 0, which indicates no involvement in any of the listed delinquent behaviors, to 69, which indicates participation in all of the listed delinquent behaviors.

Report of Coercive Interpersonal Style (RCIS). Teachers were asked to report the level of coercive behavior that students demonstrate in interpersonal relationships by responding to one item: "What level of coercion and/or aggressiveness does this student utilize in his/her interpersonal relationships." A Likert-type response format (0 = none to 4 = very much) was used. Evidence exists that teachers can provide such information about their students with a high level of accuracy (Bower, 1981; Kupersmidt & Patterson, 1991). Scores on this scale range from 0, which indicates no coercion or aggression in interpersonal relationships, to 4, which indicates very much coercive and aggressive behavior.

Procedure

Data collection. All instruments were in packets, and identification numbers were used to ensure anonymity of responses. Each participant completed all measures except the RCIS. The teachers and staff at each site were asked to rate a student's level of coercive interpersonal style on the RCIS item. These ratings were later matched with the respective student's packets through the use of the identification number.

Data analysis. A path analysis was used with the single measure of delinquent behavior as the criterion variable for examining the relationships among the independent variables in the model, that is, family cohesion, family adaptability, family satisfaction, coercive interpersonal style, and deviant peer involvement. The multiple correlation squared (R^2) scores and beta coefficients were used to examine the relative strength of the variables in predicting the incidence of delinquent behavior.

TABLE 1 Distributions of Variables Associated With Delinquent Behavior for Participants

Variable	M	SD
Family cohesion	50.73	11.03
Family adaptability	41.55	8.13
Family satisfaction	43.78	9.90
Deviant peer involvement	42.96	35.41
Coercive interpersonal style	2.76	1.60
Delinquent behavior	13.15	15.88

Note. N = 111.

RESULTS

The mean scores, standard deviations, and zero-order correlation matrix are presented in Tables 1 and 2. The strongest correlation (.77, $p < .01$) occurred between deviant peer involvement and delinquent behavior. Family cohesion correlated at the .05 level with delinquent behavior and correlated negatively with deviant peer involvement at the .01 level.

TABLE 2 Correlation Matrix of Variables Associated With Delinquent Behavior

ITEM	1	2	3	4	5	6
1. COHES	--	--	--	--	--	--
2. ADAPT	.74 [b]	--	--	--	--	--
3. SATIS	.65 [b]	.62 [b]	--	--	--	--
4. PEER	-.26 [b]	-.22 [a]	-.18	--	--	--
5. COERCE	-.23	-.31 [a]	-.49 [b]	.28	--	--
6. DELINQ	-.23 [a]	-.23 [a]	-.15	.77 [b]	.16	--

Note. COHES = family cohesion; ADAPT = family adaptability; SATIS = family satisfaction; PEER = deviant peer involvement; COERCE = coercive interpersonal style; DELINQ = delinquent behavior.

a $p \leq .05$.

b $p \leq .01$.

DIAGRAM: FIGURE 1 Hypothesized Path Model of Adolescent Delinquent Behavior

DIAGRAM: FIGURE 2 Results of Path Analysis

The path analysis for the total sample is presented in Figure 2. Beta values were calculated for each of the bivariate relationships hypothesized in the model. Beta values are reported on the paths and R^2 values are

reported above the variables. When all of the predictors in the model were used to predict delinquent behavior, results were significant ($R^2 = .41$, $F = 4.45$, $p < .01$). The variables in the model accounted for 41% of the variance in delinquent behavior. The strongest predictor of delinquent behavior was deviant peer involvement (beta = .60). The largest direct effect on deviant peer involvement was family cohesion (beta = -.41). Finally, the largest direct effect on coercive interpersonal style was family satisfaction (beta = -.41).

DISCUSSION

This study was a test of a modified model that measured family functioning rather than parental behavior in examining the coercion theory of adolescent delinquent behavior. The specified model accounted for a significant portion (41%) of the variance in delinquent behavior. Being involved with deviant peers was found to be the strongest direct predictor of adolescent delinquent behavior. The adaptability of the family unit was the second strongest direct predictor. Family cohesion provided the overall strongest familial influence on delinquent behavior. Although the direct influence of family cohesion on delinquent behavior was relatively small, the indirect path mediated by deviant peer involvement was relatively large (beta = .25). These findings suggest that family cohesion is most influential on delinquent behavior as it influences peer-group choice. Living in a cohesive family reduces the likelihood of becoming involved with deviant peers. The strength of the relationships in this study suggests that the indirect path from family cohesion through deviant peer involvement is particularly important in influencing delinquent behavior.

Support was obtained for the coercion theory of delinquency developed by Patterson and colleagues (Dishion et al., 1991; Patterson, 1982, 1986; Patterson & Bank, 1989; Patterson & Dishion, 1985). However, the current study differed from previous research on coercion theory in that no measure of parental coercion or aggression was obtained. Family cohesion, the emotional bonding of the family, emerged as an influential predictor of delinquent behavior, particularly as it influenced involvement with deviant peers.

IMPLICATIONS FOR SCHOOL COUNSELORS

Previous research by Cashwell and Pasley (1993) suggested that it is important to consider both interpersonal and intra-personal factors that may influence adolescents to engage in delinquent acts. The current study suggests that both family and peers influence delinquent behavior. Combating the problem of adolescent delinquent behavior is a multitiered process that includes primary, secondary, and tertiary prevention.

Primary prevention refers to broad-scope efforts to provide children and early adolescents with the internal resources to avoid delinquent behaviors. Given the results of the current study, it is important for counselors and other helping professionals to provide social-skills training and information about the potential harmful effects of involvement in a deviant peer group. Previous researchers (Coie & Kupersmidt, 1983; Dodge, 1983; Patterson, 1986; Patterson & Bank, 1989) have suggested that a lack of interpersonal skills results in an adolescent's rejection from a conventional peer group and inclusion in a more deviant peer group. Thus, teaching pre-adolescents more appropriate ways of interacting with their peers may help to circumvent the "labeling and rejection" phenomena previously described by Cole and Kupersmidt (1983) and Dodge (1983).

Secondary prevention, also referred to as "early intervention," involves first identifying those students who are at-risk to engage in delinquent behavior and then providing preventive services to these targeted students. Given the familial influence on delinquent behavior among early adolescents (as identified in the current study), parent education, social-skills training, and training on peer influence are essential considerations. Important components of parent education for these at-risk youths would be the value of family cohesion and how to increase cohesion within the family. Parent education, social-skills training, and peer influence training generally are best accomplished in a group setting.

Tertiary prevention, or therapeutic intervention, includes efforts to rehabilitate known delinquents. The professional literature provides fairly clear, although not promising, effects of such efforts (Patterson et al., 1989). Therapeutic interventions have had limited impact on adolescent delinquent behavior, and identified effects often do not persist over time (Kazdin, 1987). Given the lack of effectiveness found for tertiary

prevention, interventions may need to be focused on younger children. The results of the current study suggest that a substantial number of students report involvement in delinquent behavior as early as middle school (Grades 6 through 8). Interventions, then, may need to begin in the early elementary grades.

It has been consistently shown that teachers can effectively identify students who are engaging in antisocial behavior (Kupersmidt & Patterson, 1991; Parker & Asher, 1987; Tremblay, LeBlanc, & Schwartzman, 1988) and, consequently, are at higher risk for ongoing delinquent behavior in the future. Early identification and intense intervention for these at-risk students in the early elementary grades will very likely influence future antisocial behaviors. Without interventions, the implications for such an aggressive interpersonal style may extend well beyond the adolescent years. Magnussen, Stattin, and Duner (1983) and Farrington (1991) found aggressiveness among adolescents to be predictive of criminal activity into young adulthood.

There are many challenges that must be overcome in conducting early identification and intervention programs for elementary students. Often, funding sources for delinquency prevention programs give priority to programs that involve students who are already in the juvenile justice system. A second challenge that faces school counselors is the flexibility in scheduling to provide individual, family, and group services to parents. Finally, because the previously mentioned labeling and rejection phenomenon seems to be a key issue, it is important that counselors avoid the stigma of the "at-risk" label with the adolescents they serve.

CONCLUSION

This study provided support for a coercion theory of delinquent behavior. Based on the model in this study, both family and peer relationships play a significant role in adolescents' decisions about delinquent behavior in a complex and interdependent process. Those offering intervention efforts need to recognize the complexity of this process and address familial factors, interpersonal style, and peer group as predictors of delinquent behavior.

REFERENCES

- Agnew, R. (1991). The interactive effect of peer variables on delinquency. *Criminology*, 29, 47-72.
- Bell, L. G., Cornwell, C. S., & Bell, D.C. (1988). Peer relationships of adolescent daughters: A reflection of family relationship patterns. *Family Relations*, 37, 171-174.
- Borduin, C. M., Pruitt, J. A., & Henggeler, S. W. (1986). Family interactions in Black, lower-class families with delinquent and nondelinquent adolescent boys. *Journal of Genetic Psychology*, 147, 333-342.
- Bower, E. M. (1981). *Early identification of emotionally handicapped children in school* (3rd ed.). Springfield, IL: Thomas.
- Brownfield, D., & Thompson, K. (1991). Attachment to peers and delinquent behaviour. *Canadian Journal of Criminology*, 33, 45-60.
- Cashwell, C. S., & Pasley, B. K. (1993). Family cohesion and adolescent problem behavior: The mediating effects of interpersonal and intrapersonal functioning. Manuscript submitted for publication, Mississippi State University.
- Coie, J. D., & Kupersmidt, J. B. (1983). A behavioral analysis of emerging social status in boys' groups. *Child Development*, 54, 1400-1416.
- Dishion, T. J. (1990). The family ecology of boys' peer relations in middle childhood. *Child Development*, 61, 874-892.
- Dishion, T. J., Patterson, G. R., Stoolmiller, & Skinner, M. L. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology*, 27, 172-180.
- Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, 54, 1386-1399.
- East, P. L. (1989). Early adolescents' perceived interpersonal risks and benefits: Relations to social support and psychological functioning. *Journal of Early Adolescence*, 9, 374-395.
- Elliott, D. S., Huizinga, D., & Ageton, S.S. (1985). *Explaining delinquency and drug abuse*. Newbury Park, CA: Sage.

- Farrington, D. P. (1991). Childhood aggression and adult violence: Early precursors and later-life outcomes. In D. J. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 5-29). Hillsdale, NJ: Erlbaum.
- Fry, E. (1977). Fry's Readability Graph: Clarifications, validity, and extension to level 17. *Journal of Reading*, 21, 242-252.
- Giordano, P. C., Cernkovich, S. A., & Pugh, M. D. (1986). Friendships and delinquency. *American Journal of Sociology*, 91, 1170-1202.
- Hartup, W. (1983). Peer relations. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, personality, and social development* (Vol. 4, pp. 167-230). New York: Wiley.
- Henggeler, S. W., Edwards, J., & Borduin, C. M. (1987). The family relations of female juvenile delinquents. *Journal of Abnormal Child Psychology*, 15, 199-209.
- Hindelang, M. J., Hirschi, T., & Weis, J. G. (1981). *Measuring delinquency*. Newbury Park, CA: Sage.
- Hymel, S., Rubin, K. H., Rowden, L., & LeMare, L. (1990). Children peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. *Child Development*, 61, 2004-2021.
- Kazdin, A. E. (1987). Treatment of antisocial behavior in children: Current status and future directions. *Psychological Bulletin*, 102, 187-203.
- Kupersmidt, J. B., & Coie, J. D. (1990). Preadolescent peer status, aggression, and school adjustment as predictors of externalizing problems in adolescence. *Child Development*, 61, 1350-1362.
- Kupersmidt, J. B., & Patterson, C. J. (1991). Childhood peer rejection, aggression, withdrawal, and perceived competence as predictors of self-reported behavior problems in preadolescence. *Journal of Abnormal Child Psychology*, 19, 437-449.
- Larzelere, R. E., & Patterson, G. R. (1990). Parental management: Mediator of the effect of socioeconomic status on early delinquency. *Criminology*, 28, 301-324.
- Levine, M., & Singer, S. I. (1988). Delinquency, substance abuse, and risk-taking in middle class adolescents. *Behavioral Science and the Law*, 6, 385-400.
- Magnussen, D., Stattin, H., & Duner, A. (1983). Aggression and criminality in a longitudinal perspective. In K. T. Van Dusen & S. R. Mednick (Eds.), *Prospective studies of crime and delinquency* (pp. 277-301). Hingham, MA: Kluwer-Nijhoff.
- Morris, W. (Ed.). (1980). *The American heritage dictionary of the English language*. Boston: Houghton-Mifflin.
- Olson, D. H. (1988). Family assessment and intervention: The Circumplex model of family systems. *Child and Youth Services*, 11, 9-48.
- Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxen, M., & Wilson, M. (1992). *Family Inventories: Inventories used in a national survey of families across the family life cycle*. St. Paul, MN: University of Minnesota.
- Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex Model of marital and family systems: I. Cohesion and adaptability dimensions, family types, and clinical applications. *Family Process*, 18, 3-28.
- Olson, D. H., & Wilson, M. (1982). *Family Satisfaction Scale*. St. Paul, MN: University of Minnesota, Family Social Science.
- Olweus, D. (1980). Familial and temperamental determinants of aggressive behavior in adolescent boys: A causal analysis. *Developmental Psychology*, 16, 644-660.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102, 357-389.
- Patterson, G. R. (1982). *A social learning approach: Coercive family process*. Eugene, OR: Castalia.
- Patterson, G. R. (1986). Performance models for antisocial boys. *American Psychologist*, 41, 432-444.
- Patterson, G. R., & Bank, L. (1989). Some amplifying mechanisms for pathologic processes in families. In M. R. Gunnar & E. Thelen (Eds.), *Systems and development: Minnesota symposia on child psychology* (Vol. 22, pp. 167-209). Hillsdale, NJ: Erlbaum.
- Patterson, G. R., Capaldi, D., & Bank, L. (1991). An early starter model for predicting delinquency. In D. J. Pepler & K. H. Rubin, (Eds.), *The development and treatment of childhood aggression* (pp. 139-168). Hillsdale, NJ: Erlbaum.

- Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist*, 44, 329-335.
- Patterson, G. R., & Dishion, T. S. (1985). Contributions of families and peers to delinquency. *Criminology*, 23, 63-80.
- Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlations of family management practices and delinquency. *Child Development*, 55, 1299-1307.
- Ramsey, E., Patterson, G. R., & Walker, H. M. (1990). Generalization of the antisocial trait from home to school settings. *Journal of Applied Developmental Psychology*, 11, 209-233.
- Roff, J. D. (1992). Childhood aggression, peer status, and social class as predictors of delinquency. *Psychological Reports*, 70, 31-34.
- Roff, J. D., & Wirt, R. D. (1984). Childhood aggression and social adjustment as antecedents of delinquency. *Journal of Abnormal Child Psychology*, 12, 111-126.
- Simons, R. L., Whitbeck, L. B., Conger, R. D., & Conger, K. J. (1991). Parenting factors, social skills, and value commitments as precursors to school failure, involvement with deviant peers, and delinquent behavior. *Journal of Youth and Adolescence*, 20, 645-664.
- Snyder, J. J., Dishion, T. J., & Patterson, G. R. (1986). Determinants and consequences of associating with deviant peers during pre-adolescence and adolescence. *Journal of Early Adolescence*, 6, 20-43.
- Stattin, H., & Magnusson, D. (1989). The role of early aggressive behavior in the frequency, seriousness, and types of later crime. *Journal of Consulting and Clinical Psychology*, 57, 710-718.
- Tolan, P. H. (1988). Delinquent behaviors and male adolescent development: A preliminary study. *Journal of Youth and Adolescence*, 17, 413-427.
- Tremblay, R. E., LeBlanc, M., & Schwartzman, A. E. (1988). The predictive power of first-grade peer and teacher ratings of behavior: Sex differences in antisocial behavior and personality at adolescence. *Journal of Abnormal Child Psychology*, 16, 571-583.
- Zaslow, M. J., & Takanishi, R. (1993). Priorities for research on adolescent development. *American Psychologist*, 48, 185-192.