Parenting Behaviors Associated With Risk for Offspring Personality Disorder During Adulthood

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Context: Research has suggested that some types of parental child-rearing behavior may be associated with risk for offspring personality disorder (PD), but the association of parenting with offspring PD has not been investigated comprehensively with prospective longitudinal data.

Objective: To investigate the association of parental child-rearing behavior with risk for offspring PD during adulthood.

Design: The Children in the Community study, a prospective longitudinal investigation.

Setting and Participants: A community-based sample of 593 families interviewed during childhood (mean age, 6 years), adolescence (mean ages, 14 and 16 years), emerging adulthood (mean age, 22 years), and adulthood (mean age, 33 years) of the offspring.

Main Outcome Measure: The Structured Clinical Interview for DSM-IV Personality Disorders.

Results: Ten types of parenting behavior that were evident during the child-rearing years were associated with elevated offspring risk for PD during adulthood when childhood behavioral or emotional problems and parental psychiatric disorders were controlled statistically. Parental behavior in the home during the child-rearing years was associated with elevated risk for offspring PD at mean ages of 22 and 33 years. Risk for offspring PD at both assessments increased steadily as a function of the number of problematic parenting behaviors that were evident. Low parental affection or nurturing was associated with elevated risk for offspring antisocial (P = .003), avoidant (P = .01), borderline (P = .002), depressive (P = .02), paranoid (P = .002), schizoid (P = .046), and schizotypal (P < .001) PDs. Aversive parental behavior (e.g., harsh punishment) was associated with elevated risk for offspring borderline (P = .001), paranoid (P = .004), passive-aggressive (P = .046), and schizotypal (P = .02) PDs.

Conclusions: Parental behavior during the child-rearing years may be associated with risk for offspring PD that endures into adulthood. This risk may not be attributable to offspring behavioral and emotional problems or parental psychiatric disorder, and it may not diminish over time. Low parental nurturing and aversive parental behavior during child rearing may both be associated with elevated risk for offspring PDs.

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Traumatic childhood experiences such as childhood abuse and neglect are among the risk factors that have been investigated most extensively as potential risk factors for PD. Longitudinal studies have suggested that childhood abuse and neglect may be associated with risk for the development of PD symptoms. However, few longitudinal findings have been reported regarding the effects that more common childhood adversities, such as problematic parenting, may have on the risk for PD. Nevertheless, the role of parenting is of particular interest because PDs have been hypothesized to result in part from maladaptive or deficient socialization during childhood and adolescence, when many personality traits tend to become evident. Recent studies have suggested that problematic parenting may contribute to increased risk for PD, but these findings require replication, extension, and further investigation. It is of particular interest to investigate whether the association of parenting with offspring risk for PD persists into adulthood or diminishes with offspring age. It is also of interest to investigate whether specific types of parenting behaviors are differentially associated with the development of specific types of offspring PD symptoms.

An important methodological consideration for research in this field is that offspring behavioral and emotional problems during childhood and parental psychiatric symptoms have been found to be important determinants of parental child-rearing behavior. Thus, in studies of the association of parenting with offspring psychiatric conditions, it is important to implement statistical procedures to control for offspring behavioral and emotional problems during childhood and for parental psychiatric disorders during the child-rearing years. To conduct a comprehensive and systematic investigation, it is necessary to assess a wide range of psychiatric symptoms and child-rearing behaviors among both biological parents and to assess offspring disorders during adulthood.

We describe findings from a community-based prospective longitudinal study that meets these methodological criteria regarding the association of parental child-rearing behavior with risk for offspring PD. The effects of behavioral and emotional problems during childhood and parental psychiatric disorders on offspring risk for PD are controlled statistically. In addition, we investigate the hypothesis that parental behavior in the home during the child-rearing years mediates the associations of behavioral and emotional problems during childhood and parental psychiatric disorders with the development of offspring PD. This hypothesis is consistent with the bioecological theory of Bronfenbrenner and Ceci that postulates that environmental factors, such as parenting, play an important role in determining whether biological risk factors or diatheses lead to the development of psychiatric disorders. Although previous research has supported several of the propositions set forth in the bioecological theory, the processes governing the interaction between biological and environmental risk factors for PDs and other psychiatric disorders have not yet been extensively investigated.

**METHODS**

**SAMPLE AND PROCEDURE**

The present findings are based on data from 593 families with whom psychiatric and psychosocial assessments of both biological parents and a randomly sampled child were conducted between the childhood (mean offspring age, 5.3 years) and adulthood (mean offspring age, 33.1 years) of the offspring. The study began in 1975 with comprehensive psychosocial assessments of 976 mothers of children between the ages of 1 and 10 years (mean±SD age, 5.5±2.8 years) who were randomly sampled on the basis of residence in 2 upstate New York counties. Subsequent interviews assessing psychiatric disorders and psychosocial functioning were conducted with the mothers and a randomly sampled child in 1983 (n=778; mean±SD age, 13.7±2.8 years), 1985 to 1986 (n=776; mean±SD age, 16.3±2.8 years), 1991 to 1993 (n=749; mean±SD age, 22.1±2.7 years), and 2001 to 2004 (n=658; mean±SD age, 33.1±2.9 years). The participating families were generally representative of families in the northeastern United States with regard to socioeconomic status and most demographic variables. The 593 families described in this article did not differ from the remainder of the original sample with regard to the prevalence of maternal or offspring behavioral or emotional problems, although paternal substance abuse was less prevalent. Study procedures were approved according to appropriate institutional guidelines and were approved by the Columbia University College of Physicians and Surgeons Institutional Review Board and the New York State Psychiatric Institute Institutional Review Board, New York. A National Institutes of Health Certificate of Confidentiality was obtained for these data. Written informed consent or assent was obtained from all of the participants after the interview procedures were fully explained. Additional information regarding the study methods is available from previous articles and on the study Web site (http://nyspi.org/childcom).

**ASSESSMENT OF OFFSPRING BEHAVIORAL PROBLEMS, EMOTIONAL PROBLEMS, AND PD**

Ten types of childhood behavioral and emotional problems were assessed during the maternal interviews in 1975 with the Disorganizing Poverty Interview (DPI): (1) clumsiness or distractibility (5 items; α=.53); (2) nonpersistance or noncompliance (6 items; α=.66); (3) anger (4 items; α=.48); (4) aggression to peers (9 items; α=.68); (5) problem behavior (9 items; α=.45); (6) temper tantrums (3 items; α=.48); (7) hyperactivity (3 items; α=.31); (8) crying or demanding (6 items; α=.46); (9) fearful withdrawal (7 items; α=.63); and (10) moodiness (5 items; α=.62). These childhood behavioral and emotional problems have been found to predict subsequent behavioral problems, substance use, and psychiatric disorders during adolescence and early adulthood.

Items used to assess PD at a mean age of 22 years were adapted from instruments including the Personality Diagnostic Questionnaire and the Structured Clinical Interview for DSM-III-R Personality Disorders. The items selected from these
instruments, which were developed to assess DSM-III-R diagnostic criteria, were combined using algorithms developed by consensus among 1 psychiatrist and 2 clinical psychologists. Following the publication of DSM-IV, the items selected from the study protocol were modified to maximize correspondence with DSM-IV diagnostic criteria. Items from the protocol were added when necessary, most notably to permit assessment of depressive PD. Research has supported the reliability and validity of these items and diagnostic algorithms. Personality disorders assessed using these items and algorithms were associated with elevated risk for subsequent Axis I disorders, suicidality, violence, and criminal behavior. The temporal stability of PD symptoms assessed using these procedures was similar to that obtained in other studies that have used comparable test-retest intervals. Personality disorder was assessed at a mean age of 33 years using the DSM-IV version of the Structured Clinical Interview for DSM-III-R Personality Disorders, which was administered by experienced mental health professionals. Research has supported the reliability and validity of the Structured Clinical Interview for DSM-III-R Personality Disorders.

**ASSESSMENT OF PARENTAL PSYCHIATRIC DISORDER**

Two types of interview data were used to assess parental psychiatric disorders. Current parental emotional and behavioral problems were assessed during the 1975, 1983, and 1985 to 1986 maternal interviews. Lifetime psychiatric disorders were assessed during the 1991 to 1993 maternal interview. Current maternal anxiety, depressive, disruptive, PD, and substance abuse symptoms were assessed with items from the DPI, the California Psychological Inventory, the Hopkins Symptom Checklist, and the Multiple Affect Adjective Checklist. Research has provided considerable support for the internal reliability and concurrent, criterion, and construct validity of these instruments. Current paternal alcohol abuse, drug abuse, and antisocial behavior were assessed with the DPI. Lifetime maternal and paternal anxiety, depressive, disruptive, and substance use disorders as well as antisocial PD were assessed using items adapted from the New York High Risk Study Family Interview, which was administered during the maternal interview at a mean offspring age of 22 years. Research has supported the reliability, concurrent, and diagnostic validity of this instrument.

Interview data regarding the age at disorder onset permitted identification of parental disorders that were evident by the offspring age of 16 years. Diagnostic algorithms were developed using items that assessed DSM-IV diagnostic criteria for maternal anxiety, depressive, disruptive, and substance use disorders as well as PD. Research has provided considerable support for the diagnostic and predictive validity of the items and algorithms used to assess maternal and paternal psychiatric disorders in this study. The prevalence of maternal and paternal psychiatric disorders assessed using these procedures corresponds with the findings of major epidemiological studies. Both maternal and paternal psychiatric disorders have been found to be associated with problematic child-rearing behavior and with elevated risk for the development of offspring psychiatric disorders.

**ASSESSMENT OF PARENTAL BEHAVIOR IN THE HOME DURING THE CHILD-REARING YEARS**

A wide range of maternal and paternal behaviors were assessed during the 1975, 1983, and 1985 to 1986 interviews using items from the DPI and parent and offspring versions of the Cornell Parent Behavior Inventory and the Child’s Report of Parental Behavior Inventory. Numerous studies have supported the reliability and validity of these instruments. Current paternal alcohol abuse, drug abuse, and antisocial behavior were assessed with the DPI. Lifetime psychiatric disorders were identified as being present during the child-rearing years if 1 or more behavioral or emotional problems were evident at a mean offspring age of 16 years was associated with the total offspring PD symptom level at mean ages of 22 and 33 years after controlling for the same covariates. Childhood behavioral or emotional problems were identified as being present if 1 or more behavioral or emotional problems were evident at a mean offspring age of 6 years. Parental psychiatric disorders were identified as being present during the child-rearing years if 1 or more maternal or paternal psychiatric disorders were evident by a mean offspring age of 16 years.

Generalized estimating equation analyses controlling for the covariates listed earlier were conducted to examine whether parental behavior in the home during the child-rearing years was associated with elevated risk for subsequent Axis I disorders and suicidal behavior. Several covariates were listed earlier were conducted to examine whether parental behavior in the home during the child-rearing years was associated with elevated risk for subsequent Axis I disorders and suicidal behavior. Several covariates were listed earlier were conducted to examine whether parental behavior in the home during the child-rearing years was associated with elevated risk for subsequent Axis I disorders and suicidal behavior. Several covariates were listed earlier were conducted to examine whether parental behavior in the home during the child-rearing years was associated with elevated risk for subsequent Axis I disorders and suicidal behavior. Several covariates were listed earlier were conducted to examine whether parental behavior in the home during the child-rearing years was associated with elevated risk for subsequent Axis I disorders and suicidal behavior.

**DATA ANALYSES**

Analyses of contingency tables and correlational analyses were conducted to investigate associations between specific types of parental behavior in the home during the child-rearing years and offspring PD during adulthood. Logistic regression analyses were conducted to investigate whether problematic parental behavior in the home during the child-rearing years was associated with elevated risk for offspring PD at a mean age of 22 or 33 years after controlling for offspring age, sex, childhood behavioral or emotional problems, and parental psychiatric disorder. Multiple regression analyses were conducted to investigate whether problematic parental behavior in the home by a mean offspring age of 16 years was associated with the total offspring PD symptom level at mean ages of 22 and 33 years after controlling for the same covariates. Childhood behavioral or emotional problems were identified as being present if 1 or more behavioral or emotional problems were evident at a mean offspring age of 6 years. Parental psychiatric disorders were identified as being present during the child-rearing years if 1 or more maternal or paternal psychiatric disorders were evident by a mean offspring age of 16 years.
differentially associated with risk for offspring PD as a function of age. Logistic regression analyses were conducted to investigate whether aversive parental behaviors and low parental affection or nurturing were associated with offspring risk for specific types of PD during adulthood. Multiple regression analyses were conducted to investigate whether these 2 types of parental behavior were associated with the total offspring PD symptom level at mean ages of 22 and 33 years after controlling for the covariates listed earlier. Harsh punishment, inconsistent maternal enforcement of rules, frequent loud arguments between the parents, difficulty controlling anger toward the child, possessiveness, use of guilt to control the child, and verbal abuse were classified as aversive parental behaviors. The median correlations between these behaviors and the composite indices of aversive parental behavior and low parental affection or nurturing were \( r = 0.528 \) (\( P < .001 \)) and \( r = 0.141 \) (\( P = .001 \)), respectively. Low parental affection, low parental time spent with the child, poor parental communication with the child, poor home maintenance, low educational aspirations for the child, poor parental supervision, low paternal assistance to the child's mother, and poor paternal role fulfillment were classified as being indicative of low parental affect or nurturing. The median correlations between these behaviors and the composite indices of low parental affect or nurturing and aversive parental behavior were \( r = 0.529 \) (\( P < .001 \)) and \( r = 0.177 \) (\( P < .001 \)), respectively.

A series of logistic and multiple regression analyses were conducted to investigate whether parental behavior in the home during the child-rearing years mediated the associations of offspring behavioral or emotional problems during childhood and parental psychiatric disorders with risk for offspring PD at a mean age of 22 or 33 years. Three fundamental conditions are required for parental behavior to mediate these associations. First, parental psychiatric disorders and childhood behavioral or emotional problems must predict subsequent offspring PD. Second, parental psychiatric disorders and childhood behavioral or emotional problems must be significantly associated with problematic parental behavior in the home during the child-rearing years. Third, problematic parental behavior in the home during the child-rearing years must predict subsequent offspring PD. Therefore, parental psychiatric disorders and childhood behavioral or emotional problems are controlled statistically. Post hoc analyses were conducted to investigate whether the associations of parental psychiatric disorders and childhood behavioral or emotional problems with offspring PD were significantly reduced when problematic parental behavior in the home during the child-rearing years was controlled statistically.

### RESULTS

#### PREVALENCE OF OFFSPRING PD AT MEAN AGES OF 22 AND 33 YEARS

One hundred twenty-two respondents met the DSM-IV diagnostic criteria for 1 or more PDs at a mean age of 22 or 33 years (cumulative PD prevalence, 20.6%). The point prevalence of 1 or more PDs at a mean age of 22 years was 12.5%, and the point prevalence of 1 or more PDs at a mean age of 33 years was 15.2%.

#### ASSOCIATION OF PARENTAL BEHAVIOR WITH RISK FOR OFFSPRING PD

The overall association between the composite index of the total number of different kinds of problematic parent-behavior that were evident during the child-rearing years and offspring risk for PD was statistically significant when age, sex, childhood behavioral or emotional problems, and lifetime parental psychiatric disorders were controlled (adjusted odds ratio [OR], 1.24; 95% confidence interval [CI], 1.14-1.35). This association was also significant when problematic parental behavior in the home during the child-rearing years was treated as a categorical variable (ie, 0-1, 2-5, and \( \geq 6 \) types of parental behavior) (adjusted OR, 1.96; 95% CI, 1.43-2.68). The composite index of problematic parental behavior was significantly associated with the aggregate PD symptom total at mean ages of 22 and 33 years when the covariates were controlled (partial \( r = 0.28; P < .001 \)). All of the significant associations reported in this article were linear. There were no statistically significant nonlinear (eg, quadratic, cubic) effects.

Ten types of parental behavior in the home by a mean offspring age of 16 years were significantly associated with elevated offspring risk for PD at a mean age of 22 or 33 years when the covariates were controlled (Table). The median correlation between these 10 types of parental behavior was \( r = 0.12 \) (\( P = .003 \)). Maternal possessiveness (OR, 2.32; 95% CI, 1.14-4.73), verbal abuse (OR, 2.11; 95% CI, 1.18-3.76), and low paternal assistance to the child's mother (OR, 1.89; 95% CI, 1.19-3.00) were associated with offspring risk for PD before but not after the covariates were controlled.

#### STABILITY OF THE ASSOCIATION OF PARENTAL BEHAVIOR WITH RISK FOR OFFSPRING PD

Risk for offspring PD increased steadily as a function of the number of problematic parental behaviors in the home by a mean offspring age of 16 years (Figure 1). This association was significant at mean offspring ages of 22 years (\( \chi^2 = 28.71; P < .001 \)) and 33 years (\( \chi^2 = 20.88; P < .001 \)). Generalized estimating equation analyses indicated that the association of the total number of problematic parental behaviors during the child-rearing years with risk for offspring PD at mean ages of 22 and 33 years was significant after the covariates were controlled (adjusted OR, 1.22; 95% CI, 1.13-1.31). The magnitude of this association did not diminish significantly with offspring age, and neither the main effect for offspring age nor the interaction of age with problematic parental behavior were statistically significant.

The offspring who experienced 6 or more types of problematic parental behavior were significantly more likely than the offspring who experienced 5 or fewer types of problematic parental behavior to have PD at mean ages of 22 years (adjusted OR, 2.86; 95% CI, 1.51-5.42) and 33 years (adjusted OR, 3.08; 95% CI, 1.64-5.78) after the covariates were controlled. The offspring who experienced 2 to 5 types of problematic parental behavior were significantly more likely than the offspring who experienced 1 or fewer types of problematic parental behavior to have PD at mean ages of 22 years (adjusted OR, 2.89; 95% CI, 1.50-5.38) and 33 years (adjusted OR, 2.34; 95% CI, 1.30-4.20).

The same pattern of findings was obtained in analyses that were conducted using the total PD symptom lev-
els at mean ages of 22 and 33 years as the dependent variables. The associations between the composite index of problematic parental behaviors in the home by a mean offspring age of 16 years and total PD symptom levels at mean ages of 22 years (partial \( r = 0.22; \ P = .001 \)) and 33 years (partial \( r = 0.31; \ P < .001 \)) were statistically significant after the covariates were controlled.

**OVERALL ASSOCIATION OF PARENTAL BEHAVIOR WITH RISK FOR SPECIFIC OFFSPRING PD**

There was considerable variability in the magnitude of the association between problematic parental behavior and risk for specific types of offspring PDs (Figure 2). There were significant associations between the number of problematic parental behaviors in the home by a mean offspring age of 16 years and offspring risk for antisocial (\( \chi^2 = 11.41; \ P = .003 \)), avoidant (\( \chi^2 = 10.66; \ P = .005 \)), borderline (\( \chi^2 = 14.99; \ P < .001 \)), depressive (\( \chi^2 = 12.17; \ P = .002 \)), histrionic (\( \chi^2 = 8.37; \ P = .02 \)), paranoid (\( \chi^2 = 24.53; \ P < .001 \)), and schizotypal (\( \chi^2 = 31.77; \ P < .001 \)) PDs at a mean offspring age of 22 or 33 years.

<table>
<thead>
<tr>
<th>Parenting Behavior Evident by Mean Offspring Age 16 y</th>
<th>Individuals Who Did Not Experience Parental Behavior During Childhood, % (No./Population Size, No.)</th>
<th>Individuals Who Experienced Parental Behavior During Childhood, % (No./Population Size, No.)</th>
<th>ADR (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harsh maternal punishment</td>
<td>18.3 (97/530)</td>
<td>39.7 (25/63)</td>
<td>2.13 (1.17-3.88)</td>
</tr>
<tr>
<td>Inconsistent maternal enforcement of rules</td>
<td>18.6 (94/506)</td>
<td>32.2 (28/87)</td>
<td>1.91 (1.14-3.20)</td>
</tr>
<tr>
<td>Low expression of maternal affection</td>
<td>18.9 (102/539)</td>
<td>37.0 (20/54)</td>
<td>2.58 (1.29-4.99)</td>
</tr>
<tr>
<td>Low maternal educational aspirations</td>
<td>17.4 (81/465)</td>
<td>32.0 (41/128)</td>
<td>1.93 (1.22-3.05)</td>
</tr>
<tr>
<td>Low maternal time spent with child</td>
<td>19.2 (106/551)</td>
<td>38.1 (16/42)</td>
<td>2.54 (1.40-4.76)</td>
</tr>
<tr>
<td>Low paternal time spent with child</td>
<td>18.5 (91/484)</td>
<td>28.4 (31/109)</td>
<td>1.67 (1.23-3.95)</td>
</tr>
<tr>
<td>Maternal use of guilt to control child’s behavior</td>
<td>18.5 (98/531)</td>
<td>38.7 (24/62)</td>
<td>2.20 (1.27-3.20)</td>
</tr>
<tr>
<td>Poor maternal and paternal supervision of the child</td>
<td>19.3 (109/564)</td>
<td>44.8 (13/29)</td>
<td>3.11 (1.39-6.97)</td>
</tr>
<tr>
<td>Poor maternal communication with the child</td>
<td>17.8 (83/65)</td>
<td>30.5 (39/128)</td>
<td>2.01 (1.01-2.77)</td>
</tr>
<tr>
<td>Poor paternal communication with the child</td>
<td>17.8 (85/477)</td>
<td>31.9 (37/116)</td>
<td>2.19 (1.35-3.55)</td>
</tr>
</tbody>
</table>

Abbreviations: AOR, adjusted odds ratio; CI, confidence interval; PD, personality disorder.

*Values control for offspring age, sex, childhood behavioral or emotional problems, and parental psychiatric disorder evident by a mean offspring age of 16 years.
SPECIFIC TYPES OF PARENTAL BEHAVIOR AND RISK FOR SPECIFIC OFFSPRING PD

Aversive parental behavior was associated with elevated risk for offspring PDs at a mean age of 22 or 33 years. After the covariates were controlled, the composite index of aversive parental behavior was significantly associated with risk for offspring antisocial \((P=.01)\), borderline \((P=.046)\), passive-aggressive \((P=.046)\), and schizotypal \((P=.02)\) PDs at a mean offspring age of 22 or 33 years. The composite index of aversive parental behaviors was significantly associated with risk for offspring antisocial \((P=.003)\), avoidant \((P=.01)\), borderline \((P=.002)\), depressive \((P=.01)\), passive-aggressive \((P=.02)\), paranoid \((P=.002)\), schizoid \((P=.046)\), and schizotypal PD \((P<.001)\) PDs at a mean offspring age of 22 or 33 years. After the covariates were controlled, the composite index of problematic parental behavior was significantly associated with aggregate antisocial, avoidant, borderline, dependent, histrionic, narcissistic, obsessive-compulsive, paranoid, passive-aggressive, schizoid, and schizotypal PD symptom levels across the assessments at mean ages of 22 and 33 years. The median correlation between the 12 specific types of PD symptoms was \(r = 0.39\) \((P < .001)\).

Figure 3. Association of aversive parenting behavior evident by a mean offspring age of 16 years with risk for specific offspring personality disorders (PDs) at a mean age of 22 or 33 years. The composite index of aversive parental behaviors was significantly associated with risk for offspring borderline \((P = .001)\), paranoid \((P = .004)\), passive-aggressive \((P = .046)\), and schizotypal \((P = .02)\) PDs at a mean offspring age of 22 or 33 years. The composite index of low parental affection or nurturing was significantly associated with risk for offspring antisocial \((P = .003)\), avoidant \((P = .01)\), borderline \((P = .002)\), depressive \((P = .01)\), passive-aggressive \((P = .02)\), paranoid \((P = .002)\), schizoid \((P = .046)\), and schizotypal PD \((P < .001)\) PDs at a mean offspring age of 22 or 33 years.

Figure 4. Association of low parental affection or nurturing evident by a mean offspring age of 16 years with risk for specific offspring personality disorders (PDs) at a mean age of 22 or 33 years. The composite index of low parental affection or nurturing was significantly associated with risk for offspring antisocial \((P = .003)\), avoidant \((P = .01)\), borderline \((P = .002)\), depressive \((P = .02)\), paranoid \((P = .002)\), schizoid \((P = .046)\), and schizotypal PD \((P < .001)\) PDs at a mean offspring age of 22 or 33 years.

PARENTAL BEHAVIOR AS A MEDIATOR OF RISK FOR OFFSPRING PD

Problematic parental behavior during the child-rearing years partially mediated the associations of childhood behavioral or emotional problems and parental psychiatric disorders with risk for offspring PD at a mean age of 22 or 33 years. All of the statistical criteria for mediation were met. \(^{57,59}\) Offspring behavioral or emotional problems during childhood and parental psychiatric disorders both predicted the number of types of problematic parental behavior that were evident during the child-rearing years (Figure 5). Problematic parental behavior in the home was associated with elevated risk for offspring PD when offspring behavioral or emotional problems and parental psychiatric disorders were controlled statistically as described earlier and in Figure 5. Offspring behavioral or emotional problems during childhood \((OR, 1.99; 95\% CI, 1.11-3.37)\) and parental psychiatric disorders \((OR, 1.83; 95\% CI, 1.22-2.73)\) were associated with risk for subsequent offspring PD in zero-order analyses that did not control for the effects of covariates. Neither of these associations remained significant when the composite index of problematic pa-
Our findings suggest that some types of parenting practices, such as harsh punishment and a lack of parental affection or nurturing, may be associated with risk for offspring PDs that endure into adulthood. The association between problematic parenting and risk for offspring PD may be evident during both emerging adulthood (ie, the transitional years between late adolescence and early adulthood)\(^62\) and adulthood, and the magnitude of this association may not diminish between emerging and full adulthood. The findings of the logistic regression analyses described earlier suggest that problematic parenting may contribute to elevated risk for offspring PD, above and beyond the effects of behavioral or emotional problems during childhood and parental psychiatric disorders.

The findings of this study suggest that problematic parenting may be associated with elevated risk for a wide range of offspring PDs. The overall likelihood of the development of any offspring PD may tend to increase as the number of different types of problematic parenting behaviors increases. However, although most types of PDs were more prevalent among the offspring who experienced high levels of problematic parenting, not all of these associations were statistically significant. Problematic parenting may be particularly associated with elevated risk for antisocial, avoidant, borderline, depressive, histrionic, paranoid, and schizotypal PDs.

Our findings suggest that aversive parental behavior and low parental affection or nurturing during the child-rearing years may each be associated with elevated offspring risk for PD during adulthood. Aversive parental behavior may be associated with elevated offspring risk for borderline, paranoid, passive-aggressive, and schizotypal PDs, and low parental affection or nurturing may be associated with elevated risk for offspring antisocial, avoidant, borderline, depressive, paranoid, passive-aggressive, schizoid, and schizotypal PDs. It will be of interest for future research to investigate, in greater detail, the specificity of the associations between particular types of parenting behavior and offspring PDs.

The limitations of our study require consideration. Because the fathers were not directly interviewed, data from the maternal and offspring interviews were used to assess paternal behavior and psychiatric symptoms. However, research has provided considerable support for the reliability and concurrent, criterion, and construct validity of the instruments used to assess parental disorders in this study.\(^27\)\(^-\)\(^30\)\(^,\)\(^37\)\(^-\)\(^39\)\(^,\)\(^41\) Our findings have
indicated that both problematic paternal behavior and problematic paternal behavior were associated with elevated risk for offspring psychiatric disorders, and the prevalence of maternal and paternal disorders in this study is similar to that found in major epidemiological studies. Our study also has a number of unique methodological strengths, and it is the first community-based prospective longitudinal study, to our knowledge, to investigate the association of parental behavior in the home during the child-rearing years with risk for offspring PD that endures into adulthood.

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REFERENCES


Call for Papers

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