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# Psychopathic Personality Traits and Their Influence on Parenting Quality: Results from a Nationally Representative Sample of Americans

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**Abstract** Psychopathic personality traits have consistently been found to predict a range of negative and dysfunctional outcomes. As a result, it is somewhat surprising that the research to date has failed to empirically examine the potential association between psychopathic personality traits and parenting quality. The current study addressed this omission in the literature by analyzing a community sample of adults. The results revealed that respondents scoring higher on psychopathic personality traits tended to report more negative parenting quality. These results were detected for both males and females and remained significant even after controlling for the effects of parental transmission and child-effects. To our knowledge, this is the first study to show a statistically significant association between psychopathic personality traits and parenting quality. We conclude with a discussion of what these findings mean for psychopathy research and the parenting the literature.

**Keywords** Add Health · Antisocial · Parenting · Psychopathic personality traits · Psychopathy

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## Introduction

Psychopaths and persons scoring high on psychopathic personality traits represent some of the most pathological and dangerous predators in modern society. An extensive amount of research, for example, has revealed that higher levels of psychopathic personality traits are associated with significantly greater involvement in acts of violence and aggression [1, 9, 40, 54]. Moreover, findings from empirical-based studies have shown that psychopaths are more adept at identifying vulnerable victims [55], they engage in some of the most heinous criminal acts [42], and they are relatively impervious to change [33]. Some estimates indicate that psychopathy is about 25 times higher among incarcerated criminals when compared to populations who are not incarcerated [18]. Just as important is that psychopathy and psychopathic personality traits are not only linked to aggression, violence, and crime, but also to a much wider-range of maladaptive and negative outcomes. To illustrate, findings from studies have revealed that psychopathic personality traits are associated with financial distress [37], unstable employment histories [51], lower educational performance [12], and social relationship problems [51]. Taken together, the available evidence from several studies indicates that psychopathy and psychopathic personality traits are linked to an array of negative behavioral and social outcomes.

What is noticeably absent from the existing literature, however, is any study examining the potential association between psychopathic personality traits and its relationship to parenting. This is a serious omission for two key reasons. First, there is strong intergenerational transmission of antisocial traits and behaviors, including psychopathic personality traits, but the mechanisms that account for this intergenerational transmission have remained elusive [31]. Since there is some evidence that parenting can contribute to the development of psychopathic personality traits [14], it stands to reason then that parenting might represent a mediating factor in the intergenerational transmission of psychopathic personality traits [31]. Second, and relatedly, to the extent that psychopathic personality traits predict variation in parenting quality, newer programs aimed at decreasing negative parenting could be developed that are able to help disrupt the development of psychopathic personality traits. To date, though, no research has been conducted bearing on the possible link between psychopathic personality traits and parenting quality and so there is virtually nothing known about this association. The current study addresses this gap in the literature by examining whether psychopathic personality traits in adulthood predict variation in parenting quality during adulthood. To do so, we analyze data drawn from a large, nationally representative sample of youth and we estimate statistical models capable of controlling for salient sources of confounding.

#### Psychopathic Personality Traits and Parenting Quality

Psychopathy is a personality disorder that is defined by a suite of affective, interpersonal, and behavioral deficits, but the core of psychopathy is frequently distilled down into those traits related to the affective component. Included within this component of psychopathy are traits such as callousness, low levels of empathy, guiltlessness, and remorselessness. When measured along a continuum, psychopathic personality traits have been shown to have a significant amount of variation in community samples as well as samples of criminals [17, 43]. Given the deleterious outcomes associated with psychopathic personality traits, a line of research has been interested in examining its developmental origins. Findings from a diverse set of studies, which have analyzed heterogeneous samples, have

revealed that psychopathic personality traits tend to develop relatively early in the life course and they show extremely high levels of stability across long swaths of the life course [13, 33, 34]. Moreover, treatment programs are relatively ineffective at changing psychopaths or reducing their levels of psychopathic personality traits [22]. Last, psychopathic personality traits appear to be under significant genetic influence, with around 50–60 % of the variance being attributable to genetic variation [29, 52].

The outcomes associated with psychopathy and psychopathic personality traits are welldocumented and cut across social and behavioral spheres. The effects of psychopathic personality traits on future generations, however, remains unclear because the existing research has generally overlooked the ways in which adulthood psychopathic personality traits affect the dynamics of family life and child-rearing techniques. Of all the elements of family life that influence child development, perhaps parental quality is of the utmost importance (but see [19]). This is particularly important to the study of psychopathic personality traits because psychopathic personality traits have been shown to be passed from generation to generation. While part of the reason for this intergenerational transmission is likely the result of genetic transmission, there is also some evidence that parenting quality might also be involved in this process. For example, Farrington [14] analyzed data from the Cambridge Study in Delinquent Development and found various dimensions of parenting, including harsh and erratic parenting, predicted variation in measures of psychopathic personality traits. Other studies have also found some evidence linking parenting quality to the development of psychopathic personality traits [3].

In order to understand fully the role that parenting might play in the transmission of psychopathic personality traits, it is essential that the true nature of the association between psychopathic personality traits and their influence on parenting quality be elucidated. While no research has examined this possibility empirically, there are two lines of research suggesting that persons who score relatively high on measures of psychopathic personality traits will engage in more dysfunctional and negative parenting practices when compared to those who score relatively low on psychopathic personality traits. First, Belsky [7] argued that parenting was determined by three key sources: (1) child characteristics, (2) contextual sources of stress and support, and (3) parental personality. Of these three, Belsky argued that parental personality was the most important. Studies have examined this possibility across societies, using different measures of personality and parenting, and employing very different methodological and statistical techniques. While the findings obviously vary across studies, the general conclusion that runs across most of them is that parental personality has a significant influence on parenting quality and parenting styles. For example, the personality traits of extraversion and agreeableness have been found to predict parental supportiveness [24], maternal neuroticism has been linked to overprotective parenting [10], while maternal conscientiousness has been linked to higher levels of child involvement and communication [44]. Similar findings have been reported in other studies [27, 38]. While none of these studies focused exclusively on psychopathic personality traits, the results across the literature consistently indicate that personality traits are associated with parenting. As a result, a logical conclusion would be that since psychopathic personality traits measure variation in personality that they too should exert some type of influence on parenting quality.

The second line of research suggesting that psychopathic personality traits might be related to parental quality comes from limited research examining the link between criminals and their parenting quality. Findings from a number of studies have revealed that criminal parents tend to engage in ineffective child-rearing practices. For example, in their analysis of data drawn from the Cambridge Study in Delinquent Development, Smith and Farrington [49] found that parental antisocial behavior was a significant predictor of authoritarian parenting and parental conflict. Moreover, in another study that analyzed data from the Pittsburgh Youth Study, Farrington et al. [15] reported that arrested fathers employed child-rearing methods that were ineffective at instilling a strong conscience in their children. Sampson and Laub's [45] analysis of the Glueck data revealed similar findings by showing that father's and mother's antisocial behaviors were related to erratic and harsh discipline and to reduced parental supervision. These findings tend to be corroborated by the results of other studies showing a link between parental criminality and antisocial behavior and parenting quality [16].

The reason that these finding are of importance and of relevance to the current study is because psychopathic personality traits are one of the strongest and most consistent correlates of criminal involvement. As a result, if criminal behavior influences parenting quality, then it would be quite reasonable to assume that psychopathic personality traits might also influence parenting quality. In this case, the association would be indirect, leading from psychopathic personality traits to crime to parenting quality. An alternative explanation, however, is that criminal involvement simply represents a proxy marker for psychopathic personality traits. Whatever the explanation, studies showing a link between criminality and parenting quality represent some strong evidence hinting at the very real possibility that psychopathic personality traits might also be linked to parenting quality.

#### The Current Study

There has been a tremendous amount of interest in understanding the consequences of psychopathic personality traits. Much of this research has focused on the negative behavioral outcomes associated with it, but there has also been interest in understanding the social consequences of it, too. To date, though, no research has explored the possibility that psychopathic personality traits influence parenting quality. The goal of the current study is to address this gap in the literature and examine the potential association between psychopathic personality traits and parenting quality. In doing so, we also control for rival explanations, such as that parenting quality is determined through the intergenerational transmission of parenting [8, 46] and that parenting quality is simply a reflection of child characteristics and behaviors [36].

# Methods

## Data

Data for this study were extracted from the National Longitudinal Study of Adolescent Health (Add Health; [50]). Previously published reports have provided extensive information about the data, the measures, and the sampling design [20, 21, 50]. Briefly, the Add Health is a four-wave longitudinal study of a nationally representative sample of American youth who were enrolled in middle or high school during the 1994–1995 academic year. The first wave of data was divided into two components: the in-school component and the in-home component. The wave 1 in-school surveys were administered to all students who were in attendance on a specified day at one of the schools selected for inclusion in the study. Overall, nearly 90,000 adolescents participated in this component of the study. A subsample of these students were then selected to be reinterviewed in their homes in what

is known as the wave 1 in-home component of the study. In total, 20,745 youth along with approximately 17,700 of their primary caregivers participated in this wave of the study. Wave 2 surveys were administered about 1.5 years later when a total of 14,738 participants were successfully reinterviewed. The third wave of data was collected in 2001–2002 when 15,197 young adults were included in the study. Finally, the fourth round of surveys were administered in 2007–2008. During this time, most of the 15,701 participants were between the ages of 24 and 32 years of age. Overall, the Add Health data span more than 13 years of adolescent and adulthood development [20].

# Measures

## Parenting Quality

During wave 4 interviews, participants who indicated that they had a biological child were asked questions about their parenting experiences. Specifically, they were asked how much they agreed with the following four statements: (1) I am happy in my role as a parent, (2) I feel close to my child(ren), (3) The major source of stress in my life is my child(ren) (reverse coded), and (4) I feel overwhelmed by the responsibility of being a parent (reverse coded). Responses to these items were coded as follows: 1 = strongly agree, 2 = agree, 3 = neither agree nor disagree, 4 = disagree, and 5 = strongly disagree. The responses to the four items were then summed together to create the parenting quality measure, wherein higher values represented more inept parenting ( $\alpha = .58$ ). This same scale has been used in previous research analyzing the Add Health data [4]. Table 1 includes descriptive statistics for the parenting quality scale along with all other variables/scales that were used in the analyses.

#### Psychopathic Personality Traits

During wave 4 interviews, respondents were asked a series of questions that were based on the Five-Factor Model of personality in addition to questions measuring self-regulation. Previous Add Health researchers have built off scholarship that views psychopathy as a continuously distributed trait [32, 35, 39] to create a psychopathic personality traits measure [3, 5]. Detailed information pertaining to this scale has been published previously [3], but, in short, the psychopathic personality traits scale is comprised of 23 items that capture variation in affective, interpersonal, and behavioral components related to psychopathy. All items were coded (or reverse-coded) so that higher values indicated greater levels of psychopathic personality traits. These items were then summed together to create the psychopathic personality traits scale ( $\alpha = .81$ ). It is worth underscoring the fact that this scale has been used previously and it has been shown to have predictive validity as well as having the similar etiological origins as other measures of psychopathy and psychopathic personality traits [3, 5, 6].

# Parental Transmission Variables

Given that research has consistently revealed that parenting styles and parental quality is transmitted across generational lines [11, 26, 48], we included four measures tapping parenting that the respondent experienced during adolescence. All of these measures were drawn from questions asked on the wave 2 surveys. First, a seven-item maternal

| <b>Table 1</b> Descriptive statisticsfor selected Add Health variables | Variable/scale                  | Mean  | SD   | Min–Max |
|--|---------------------------------|-------|------|---------|
| and scales   | Parenting quality               | 6.89  | 2.48 | 4-20    |
|  | Psychopathic personality traits | 57.59 | 9.43 | 23–99   |
|  | Maternal disengagement          | 13.28 | 4.84 | 7–35    |
|  | Maternal involvement            | 3.95  | 2.04 | 0-10    |
|  | Maternal attachment             | 9.15  | 1.20 | 2-10    |
|  | Parental permissiveness         | 5.50  | 1.51 | 0–7     |
|  | Young child temperament         | 2.31  | 1.89 | 0-11    |
|  | Older child temperament         | 2.88  | 2.35 | 0-12    |
|  | Age (wave 1)                    | 16.35 | 1.69 | 12-21   |
|  | Gender $(1 = male)$             | .40   | .49  | 0-1     |
|  | Race $(1 = \text{nonwhite})$    | .37   | .48  | 0-1     |

disengagement scale was developed. This scale was created by summing responses to questions asked to the adolescents, such as whether their mother is warm and loving and whether they are satisfied with the way that their mother communicates with them. Higher values on this scale represent greater levels of maternal disengagement ( $\alpha = .86$ ). Second, a maternal involvement index was created by summing responses to ten questions asked to the adolescents. Specifically, adolescents were asked to indicate whether their mother and them had engaged in ten different activities during the previous 4 weeks, such as playing a sport, going to a movie, and going shopping. Responses were coded dichotomously (0 = no, 1 = yes) and they were summed together to create the maternal involvement index ( $\alpha = .54$ ). Third, a two-item maternal attachment scale was included in the analyses to capture variation in how attached the youth were to their mother. Adolescents were asked to indicate how close they feel to their mother and how much they believe that their mother cares about them. These two items were summed together to create the maternal attachment scale, with higher values reflecting greater levels of attachment ( $\alpha = .54$ ). Last, a parental permissiveness scale was created based on seven questions asked to adolescents regarding the amount of supervision that they receive from their parents. For example, youth were asked whether their parents let them make their own decision about they peers that they hang around with and the television programs that they view. These items were then combined together to create the parental permissiveness scale, with higher values reflecting greater levels of parental permissiveness ( $\alpha = .66$ ). Importantly, all of these parental transmission variables have been used previously [2].

# Child-Effects Variables

During wave 3 interviews, respondents who indicated that they had a child were asked a series of questions pertaining to their child's temperament. If the respondent revealed that their children was under the age of 2 years old and that that child lived with them, they were asked the three following questions: When your child hears an unexpected loud sound, how often do they cry or become upset, how often do you have trouble soothing or calming your child when they are crying or upset, and during the average day, how often does your child get fussy and irritable. Responses to these items were coded such that higher values reflected a more difficult temperament ( $\alpha = .44$ ) on the young child temperament scale.

In addition, during wave 3 interviews, respondents who indicated that they had a child that was greater than 2 years old were asked three different questions about their child's temperament. Specifically, they were asked: how often do you have trouble soothing or calming your child when they are upset, how often your child is demanding and impatient even when you are busy, and during the average day, how often your child becomes unhappy and irritable. Responses to these items were summed together to create the older child temperament scale, wherein higher values corresponded to a more difficult temperament ( $\alpha = .68$ ).

# Control Variables

Three control variables were included in all of the analyses to help rule out confounding effects resulting from them. First, age was entered into the equations and was measured in years of age at wave 1. Second, gender was measured as a dichotomous dummy variable, where 0 = female and 1 = male. Third, race was also included as a dichotomous dummy variable, such that 0 = white and 1 = nonwhite.

## Plan of Analysis

The analysis for this paper began by estimating a series of ordinary least squares (OLS) regression models to assess the association between psychopathic personality traits and parenting quality. To begin, the full sample was analyzed and four OLS regression equations estimated. The first model, termed the baseline model, estimated the influence of psychopathic personality traits on parenting quality net of the effects of the three control variables (i.e., age, gender, and race). The second model was more fully specified as it controlled for the effects of the parental transmission variables. This model helped to isolate the effect of psychopathic personality traits from the effects of parenting influences that might be passed along generational lines. The third and the fourth models included in the child-effects scales (i.e., the young child temperament scale and the older child temperament scale). These models help to disentangle the effects that psychopathic personality traits have on parenting quality net of the effects that their children's behavior has on parental quality [23, 30]. Remember that the young child-effects scale was only available for those respondents who had a child younger than 2 years of age at wave 3 whereas the older child-effects scale was only available for respondents who had a child 2 years of age or older at wave 3. What this necessarily means is that these are restricted models that only include a subsample of respondents (i.e., those who had children at wave 3). As a result, the sample size decreases significantly in these models. These same models were then estimated separately for females and males. All equations were estimated using surveyadjusted weights and cluster variables.

#### Results

Table 2 presents the results of the OLS regression models predicting parenting quality for the full analytical sample. In the baseline model, psychopathic personality traits was significantly associated with parenting quality, indicating that higher levels of psychopathic personality traits corresponds to more negative parenting behaviors. The second model in Table 2 contains the results of the parental transmission model where each of the four parenting measures were included in the equation. Once again, the psychopathic personality traits scale maintained a positive and statistically significant association with parenting quality. Of all the other variables in the model, only maternal attachment and race emerged as having statistically significant associations with parenting quality. For these variables, higher levels of maternal attachment corresponded to greater levels of positive parenting quality and nonwhites were, on average, more likely to report more negative parenting behaviors. The effects of both of these variables, moreover, were very small and only marginally statistically significant. In the last two models, the child-effects scales were included in the equations. As can be seen, in both of these equations, the psychopathic personality traits scale was significantly associated with parenting quality. In the younger child-effects model, the young child temperament was unrelated to parenting quality, but in the older child-effects model, the older child temperament scale was positively associated with parenting quality. This latter finding can be interpreted to mean that older children with more difficult temperaments are more likely to experience more negative parenting.

The next set of OLS regression models are identical to those reported in Table 2 except that they were estimated on the female subsample. The results are presented in Table 3 and the pattern of findings is largely consistent with those generated from the full sample. Across all of the models, the psychopathic personality traits scale maintained a positive and statistically significant association with parenting quality. This finding indicates that mothers who score higher on psychopathic personality traits also tend to report more negative parenting quality. The only other key finding of interest was that the older temperament scale was positively related to parenting quality, suggesting that mothers who have older children with more difficult temperaments also tend to report higher levels of negative parenting.

Table 4 contains the OLS regression models predicting parenting quality for the male subsample. In line with the previous analyses, the psychopathic personality traits scale was positively related to parenting quality in the baseline model, the parental transmission model, and the young child-effects model. The point of departure was found in the older child-effects model, wherein the effects of psychopathic personality traits dropped from statistical significance. It is important to point out, however, that in the older child-effects model, the sample size dropped to N = 116 and that this model became somewhat unstable as highlighted by the increase in the effect sizes and that some of these effects (e.g., maternal disengagement) were significant in the opposite direction. As a result, findings from the older child-effects model (and, to a lesser extent, the findings reported in the young child-effects model) should be viewed with caution.

## Discussion

The sheer breadth of negative and antisocial outcomes that have been linked to psychopathic personality traits is quite impressive. Indeed, outside of a few other individual-level traits, such as self-control [41] and intelligence [25], there are no other variables that can claim to have such diverse effects over every section of the life course. Despite the voluminous literature that has examined the effects of psychopathic personality traits, there still remains a number of salient gaps in the extant literature. One of the more noteworthy gaps centers on the potential influence that psychopathic personality traits have on parenting quality. While a wide range of other personality traits have been shown to affect parenting styles and parenting quality [7, 10, 24], no research has directly examined

| Table 2 Ordinary least squares regression models predicting parenting quality for the full sample | regression  | models         | predicting 1 | parenting qu | ality for th                | e full sample |          |                           |       |          |                           |       |
|---|-------------|----------------|--------------|--------------|-----------------------------|---------------|----------|---------------------------|-------|----------|---------------------------|-------|
|   | Baselin     | 3aseline model |              | Parental     | Parental transmission model | n model       | Young cl | Young child-effects model | model | Older ch | Older child-effects model | model |
|   | q           | SE             | Beta         | p            | SE                          | Beta          | þ        | SE                        | Beta  | q        | SE                        | Beta  |
| Psychopathic personality traits   | 60.         | .01            | .36*         | 60.          | .01                         | .35*          | .08      | .01                       | .32*  | 60.      | .01                       | .33*  |
| Maternal disengagement  |             |                |              | .01          | .01                         | .01           | .04      | .03                       | .08   | 07       | .03                       | 15*   |
| Maternal involvement  |             |                |              | .03          | .03                         | .03           | .04      | 90.                       | .03   | 07       | .07                       | 05    |
| Maternal attachment   |             |                |              | 13           | .05                         | 06*           | 01       | .12                       | 00    | 17       | .10                       | -00   |
| Parental permissiveness   |             |                |              | 04           | .03                         | 02            | 07       | 60.                       | 05    | 04       | 60.                       | 02    |
| Young child temperament   |             |                |              |              |                             |               | .08      | .07                       | .07   |          |                           |       |
| Older child temperament   |             |                |              |              |                             |               |          |                           |       | .19      | .05                       | .19*  |
| Age   | .05         | .03            | .04          | .06          | .04                         | .04           | .22      | 60.                       | .15*  | .04      | .08                       | .02   |
| Gender  | 03          | .10            | 01           | .02          | .11                         | 00.           | 43       | .27                       | -09   | .21      | .33                       | .03   |
| Race  | .16         | .11            | .03          | .22          | .11                         | .04*          | 02       | .24                       | 01    | 60.      | .24                       | .02   |
| Ν   | 4,438       |                |              |              |                             |               | 521      |                           |       | 704      |                           |       |
|   |             |                |              | 4,025        |                             |               |          |                           |       |          |                           |       |
| All equations estimated with survey-adjusted weights  | rvey-adjust | ed weigh       | ts           |              |                             |               |          |                           |       |          |                           |       |

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\* Significant at the .05 level, two-tailed test

|  | Baselin    | Baseline model |      | Parental t | Parental transmission model | n model | Young cl | Young child-effects model | model | Older ch | Older child-effects model | model |
|--|------------|----------------|------|------------|-----------------------------|---------|----------|---------------------------|-------|----------|---------------------------|-------|
|  | þ          | SE             | Beta | þ          | SE                          | Beta    | q        | SE                        | Beta  | q        | SE                        | Beta  |
| Psychopathic personality traits                      | .10        | .01            | .37* | .10        | .01                         | .38*    | 60.      | .01                       | .36*  | .10      | .01                       | .37*  |
| Maternal disengagement                               |            |                |      | 01         | .01                         | 02      | .02      | .03                       | .05   | 06       | .03                       | 13    |
| Maternal involvement                                 |            |                |      | .02        | .04                         | .02     | 00.      | .07                       | 00.   | 00.      | .07                       | 00.   |
| Maternal attachment                                  |            |                |      | 12         | 90.                         | 06*     | 02       | .12                       | 01    | 10       | .11                       | 05    |
| Parental permissiveness                              |            |                |      | .02        | .04                         | .01     | .01      | 60.                       | .01   | .07      | .10                       | .04   |
| Young child temperament                              |            |                |      |            |                             |         | .11      | 60.                       | .10   |          |                           |       |
| Older child temperament                              |            |                |      |            |                             |         |          |                           |       | .16      | .05                       | .16*  |
| Age  | .04        | .6             | .03  | .03        | .04                         | .01     | .20      | .11                       | .14   | 10       | .08                       | 06    |
| Race   | 05         | .13            | 01   | 00         | .13                         | 01      | 16       | .25                       | 04    | 14       | .23                       | 03    |
| Ν  | 2,736      |                |      | 2,483      |                             |         | 387      |                           |       | 588      |                           |       |
| All equations estimated with survey-adjusted weights | vey-adjust | ed weigh       | ts   |            |                             |         |          |                           |       |          |                           |       |

Table 3 Ordinary least squares regression models predicting parenting quality for the female subsample

\* Significant at the .05 level, two-tailed test

|                                 | Basel | Baseline model | ۲.   | Parental t | Parental transmission model | model | Young cl | Young child-effects model | model | Older ch | Older child-effects model | nodel |
|---------------------------------|-------|----------------|------|------------|-----------------------------|-------|----------|---------------------------|-------|----------|---------------------------|-------|
|                                 | q     | SE             | Beta | p          | SE                          | Beta  | þ        | SE                        | Beta  | q        | SE                        | Beta  |
| Psychopathic personality traits | 60.   | .01            | .34* | 80.        | .01                         | .30*  | 90.      | .02                       | .22*  | .03      | .02                       | .11   |
| Maternal disengagement          |       |                |      | .04        | .03                         | .06   | .10      | 90.                       | .16   | 13       | 90.                       | 25*   |
| Maternal involvement            |       |                |      | .04        | .04                         | .03   | .11      | .11                       | 60.   | 37       | .12                       | 26*   |
| Maternal attachment             |       |                |      | 19         | 60.                         | 08*   | .06      | .26                       | .02   | 71       | .22                       | 29*   |
| Parental permissiveness         |       |                |      | 10         | .05                         | 06    | 25       | .17                       | 17    | 55       | .11                       | 35*   |
| Young child temperament         |       |                |      |            |                             |       | 00.      | .11                       | 00.   |          |                           |       |
| Older child temperament         |       |                |      |            |                             |       |          |                           |       | .31      | 60.                       | .28*  |
| Age                             | .07   | .05            | .05  | 60.        | .06                         | 90.   | .30      | .14                       | .20*  | .41      | .13                       | .25*  |
| Race                            | .43   | .18            | .07* | .54        | .17                         | .10*  | .30      | .59                       | 90.   | 1.32     | .50                       | .25*  |
| Ν                               | 1,702 |                |      | 1,542      |                             |       | 134      |                           |       | 116      |                           |       |

\* Significant at the .05 level, two-tailed test

psychopathic personality traits. The current study addressed this issue by examining the nexus between psychopathic personality traits and parenting quality using data drawn from a large, longitudinal, and nationally representative sample of Americans. The results generated from these models revealed strong empirical evidence that persons scoring higher on psychopathic personality traits were, on average, more likely to report more negative parenting quality. This association was highly robust as it was detected for both males and females and remained statistically significant even after the inclusion of controls for parental transmission and child-effects.

Based on the results of these rigorous models, it appears as though psychopathic personality traits have been found to be linked to yet another deleterious outcome. These findings, moreover, have important implications for at least three areas of research. First, and perhaps most importantly, research that examines the effects of parenting on offspring antisocial outcomes needs to account for the psychopathic personality traits in the parents. Without doing so, the risk of model misspecification and perhaps even spuriousness increases significantly. To illustrate, a study that estimates the influence of parenting quality on adolescent violence may find that negative parenting is related to a greater involvement in violent behaviors in their offspring. However, given that psychopathic personality traits are highly heritable [53] and that psychopathic personality traits are linked to more negative parenting, it is quite possible that the parenting quality-offspring violence association is simply due to the confounding effects of parental psychopathic personality traits. Second, research interested in examining the intergenerational transmission of psychopathic personality traits should explore the possibility that parenting quality might be involved, to some extent, in this process. Although genetic influences are known to play a major role in the transmission of psychopathic personality traits, there are also salient environmental factors that matter, too. Whether parenting quality might be one of these salient environmental factors remains an open-empirical question awaiting future researchers to explore. Third, although the treatment of psychopaths has been shown to be relatively ineffective [28, 47], it is quite possible that certain programs might be able to prevent the emergence and development of psychopathic personality traits. Research focusing on prevention and treatment of criminals has revealed that early life interventions that target at-risk children and youth can be quite effective at preventing criminal involvement even though rehabilitation programs remain comparatively ineffective [16]. What this means is that targeting the parenting quality of psychopathic parents may prove to be a useful way to prevent the transmission of psychopathic personality traits into future generations.

Although this study is the first, to our knowledge, to show a significant link between psychopathic personality traits and parenting quality, there are a number of limitations of the current study that need to be addressed in future studies. First, the sample employed in the current study was based on a community sample of males and females that was designed to be nationally representative of American youth. While the advantage of this sample is that the findings should be generalizable to the population of Americans, the drawback is that it is not possible to determine whether the findings would generalize to higher risk populations such as prison inmates. This is a particularly important issue given that psychopaths are at such high risk for being incarcerated. As a result, future studies should attempt to replicate these findings by using clinical samples and samples that consist of prison inmates. Second, although this measure of psychopathic personality traits has been used previously, it would be important to determine whether the same pattern of results would be detected when using other measures of psychopathy and psychopathic personality traits. Third, the Add Health data did not include any measures on the child's psychopathic personality traits. Consequently, it was not possible to determine the interconnections among parental psychopathic personality traits, parenting quality, and child psychopathic personality traits. An important avenue for future research would be to unpack the potential interconnections among all of them in the same study.

There can be little doubt that psychopathic personality traits are among the most debilitating and dangerous traits found in the human population. The negative and antisocial effects that emanate from this constellation of traits are far-reaching and spillover into virtually every sphere of life. The results of the current study extend the range of outcomes linked to psychopathic personality traits by showing that they also influence parenting quality. This is a particularly vexing finding because, if previous research linking parenting to psychopathy is correct [14], psychopathic personality traits may be self-perpetuating in the sense that they create the very conditions (e.g., negative parenting) that are linked to their etiology.

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