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Patterns of Competence and Adjustment Among Adolescents from Authoritative, Authoritarian, Indulgent, and Neglectful Homes: A Replication in a Sample of Serious Juvenile Offenders

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Abstract

The correlates of authoritative, authoritarian, indulgent, and neglectful parenting were examined within a sample of 1,355 14- to 18-year-olds adjudicated of serious criminal offenses. The sample is composed primarily of poor, ethnic-minority youth living in impoverished urban neighborhoods. As has been found in community samples, juvenile offenders who describe their parents as authoritative are more psychosocially mature, more academically competent, less prone to internalized distress, and less prone to externalizing problems than their peers, whereas those who describe their parents as neglectful are less mature, less competent, and more troubled. Juvenile offenders who characterize their parents as either authoritarian or indulgent typically score somewhere between the two extremes, although those from authoritarian homes are consistently better functioning than those from indulgent homes. These patterns did not vary as a function of adolescents' ethnicity or gender.

Among the most robust findings reported in the literature on parent-adolescent relationships is that young people who have been raised in authoritative (warm and firm) households are more psychosocially competent, more successful in school, and less prone to internalizing or externalizing problems than their peers who have been raised in authoritarian (firm but not warm), indulgent (warm but not firm), or neglectful (neither warm nor firm) homes (Steinberg, 2001). A number of researchers have examined the prevalence and correlates of different parenting styles in diverse populations of adolescents. These studies have largely found that, even though authoritative parenting is less common in ethnic minority and in poor families, its *effects* on adolescent adjustment appear to be beneficial across ethnic and socioeconomic groups (e.g., Knight, Virdin, & Roosa, 1994; Mason, Cauce, Gonzales, & Hiraga, 1996; Steinberg, Mounts, Lamborn, & Dornbusch, 1991).

The present study examines the correlates of authoritative, authoritarian, indulgent, and neglectful parenting within a large sample of serious juvenile offenders. Studying parenting style and adolescent adjustment in this group of adolescents is important for several reasons. First, the link between parenting style and adolescent adjustment has not been thoroughly examined in groups of adolescents who are at greatest risk for problematic development. Second, there is reason to believe that juvenile offenders' parents actually are a more heterogeneous group than is commonly believed and it is of interest to ask whether variability

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in parenting in this unusual population is meaningfully related to adolescent adjustment. Finally, it is of interest to ask whether the correlates of non-authoritative parenting are the same among juvenile offenders as they are in community samples. It has been hypothesized that because poor ethnic minority families are more likely to live in dangerous communities, authoritarian parenting may not be as harmful and may even carry some protective benefits (Furstenberg, Cook, Eccles, Elder & Sameroff, 1999).

METHOD

Participants

Data for the present analyses come from a sample of 1,355 adolescents who are participants in a prospective study of serious juvenile offenders in two major metropolitan areas (for study details, see Schubert et al., 2004). Adjudicated adolescents between the ages of 14 and 17 were recruited from courts. Eligible crimes included all felony offenses with the exception of less serious property crimes, as well as misdemeanor weapons offenses and misdemeanor sexual assault. Because drug law violations represent an especially large proportion of the offenses to 15% of the sample at each site. All females meeting the age and adjudicated crime requirements and all youths whose cases were being considered for trial in the adult system were eligible for enrollment, even if the charged crime was a drug offense.

We attempted to enroll slightly more than half the youth determined to be adjudicated on an eligible charge during the enrollment period (n=2,008); we were unable to make contact with 316 of these individuals. Those not attempted (n=1,799) were excluded because of operational and design constraints (e.g., when the flow of cases at that time would have overloaded the available interviewers or when we were close to enrolling our predetermined cap of 15% drug offenders). The informed consent of the juvenile's parent or guardian, as well as his or her own informed assent, was obtained for all participants. Only 20% of the youth whom we were able to locate and contact refused to participate or had parents withhold consent.

The sample is predominantly lower-class, with fewer than 3% of the participants from households headed by a 4-year college graduate, and 50% of the households headed by a parent with less than a high-school education. Forty-two percent of the participants are African American, 34% Hispanic American, 20% white, 3% biracial, and 2% Native American. Eighty-four percent of the participants are male. The vast majority of participants (83%) come from single-parent homes headed by a biological mother who had either never been married (47%) or was divorced, separated, or widowed (36%); 15% of the participants lived with both their biological mother and father; and 2% lived with a biological mother and stepfather. Participants averaged 16 years at the time of their interview.

Procedure

All recruitment and assessment procedures were approved by the IRBs of the participating universities. Each day, the juvenile court in each locale provided the names of individuals eligible for enrollment in the study based on their age and adjudicated charge. Interviewers would then attempt to contact the juvenile and his or her family to ascertain the juvenile's interest in participating in the study and to obtain parental consent. Once the appropriate consents had been obtained, the interviewer would make an appointment to interview the juvenile, either in a facility, if the juvenile was confined, or at the juvenile's home or a mutually agreed-upon location in the community.

The interview was administered over 2 days in two, 2-hour sessions. Interviews and participants sat side by side facing a computer, and questions were read aloud to avoid any problems caused

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by reading difficulties. Respondents would generally answer the interview questions out loud, although in the case of questions concerning sensitive material (e.g., criminal behavior, drug use), respondents were encouraged to use a portable keypad to input their answers in confidence. All interviews in facilities were conducted in private rooms with no facility personnel within hearing range. When interviews were conducted in participants' homes or in community settings, attempts were made to conduct them out of the earshot of other individuals. Participants were explained that we had a requirement for confidentiality placed upon us by the U.S. Department of Justice that prohibited our disclosure of any information to anyone outside the research staff, except in cases of suspected child abuse or where an individual's harm was imminent. Adolescents were paid \$50 for their participation.

Measures

Parenting style—*Parental warmth* was measured, separately in reference to mother/ stepmother and father/stepfather, using a scale developed by Conger, Ge, Elder , Lorenz, and Simons (1994) (nine items, Sample item: "When you and your mother have spent time talking or doing things together how often did your mother act supportive and understanding toward you?" α for maternal warmth=.85; α for paternal warmth=.88). Maternal and paternal scores for residential parents were averaged in two-parent households. Parental firmness was measured using a scale adapted from Steinberg, Lamborn, Darling, Mounts, and Dornbusch (1994) (eight items, sample item: "How often do you have a set time to be home on weekend nights?", α =.80). Because this measure was not completed separately with regard to mothers and fathers, it was used to index parental firmness for all participants.

Four parenting categories were defined by trichotomizing the sample on acceptance and on strictness and examining families' scores on the two variables simultaneously. An identical procedure was followed by Lamborn, Mounts, Steinberg, and Dornbusch (1991) in a study of 4,100 high school students. *Authoritative* families (N=184) were those who scored in the upper tertiles on both warmth and firmness; *neglectful* families (N=173) were in the lowest tertiles on both variables; *authoritarian* families (N=104) were in the lowest tertile on warmth, but in the highest tertile on firmness; and *indulgent* families (N=110) were in the highest tertile on either of the dimensions were excluded from the analysis, in order to ensure that the four groups of families represented distinct categories. In the present study, of the families we classified, 32% were classified as authoritative, 30% as neglectful, 18% as authoritarian, and 19% as indulgent.

We also categorized families using warmth and firmness cut-points comparable with those used by Lamborn et al. (1991). "Low warmth" was operationalized as anything lower than 77% of our warmth scale maximum, whereas "high warmth" was defined as anything higher than 87% of the scale maximum. "Low firmness" was operationalized as anything lower than 69% of our firmness scale maximum, whereas "high firmness" was operationalized as anything higher than 82% of the scale maximum. Using these cut-points, only 15% of our offender sample is classified as having authoritative parents, whereas 49% are categorized as neglectful, 13% as authoritarian, and 23% as indulgent. All analyses were conducted twice: with parenting style categories based on relative cut-points and again with categories based on the cut-points used by Lamborn et al. Because the results of these two sets of analyses were identical, and because the latter procedure affords direct comparability with a community sample, only the latter set of results is reported.

The prevalence of authoritative parenting in the present sample was lower among white families than among African American or Hispanic families ($\chi^2(6)=28.47$, p<.001). Parenting style did not vary as a function of family structure but did vary as a function of adolescent age, with younger adolescents relatively more likely to characterize their parents as authoritative

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and older adolescents relatively more likely to characterize them as indulgent or neglectful ($\chi^2(12)=36.94$, *p*<.001).

Indicators of adolescent competence and adjustment—We examined four broad domains of adolescent functioning, each measured with multiple indicators: psychosocial development, academic competence, internalized distress, and externalizing problems. For all measures, higher scores indicate "more" of the construct being measured.

The four indicators of psychosocial development were *personal responsibility*, assessed using the Psychosocial Maturity Inventory (Greenberger, Josselson, Knerr, & Knerr, 1974; 30 items, sample item: "I hate to admit it, but I give up on my work when things go wrong" [reverse coded], α =.90); *temperance*, using a composite of the impulse control and suppression of aggression subscales of the Weinberger Adjustment Inventory (Weinberger & Schwartz, 1990; 23 items, sample item: "I say the first thing that comes into my mind without thinking enough about it" [reverse coded]), α =.84); *empathy*, using the consideration of others subscale of the Weinberger Adjustment Inventory (seven items, sample item: "Doing things to help people is more important to me than almost anything else," α =.73); and *resistance to peer* influence, using a relatively new measure that assesses this construct in general terms, rather than with specific reference to antisocial peer influence (Steinberg, 2004). The measure presents respondents with a series of 10 pairs of statements and asks them to choose the statement that is the best descriptor (sample item: "Some people go along with their friends just to keep their friends happy" BUT "Other people refuse to go along with what their friends want to do, even though they know it will make their friends unhappy," α =.73).

The four indicators of academic competence were self-reported *school grades*, and three indicators of attachment to and engagement in school, from Cernkovich and Giordano (1992): *school orientation* (seven items, sample item: "Schoolwork is very important to me," α =.82); *school engagement* (three items, sample item: "When you last attended school, how many hours a week did you usually spend doing homework?", α =.43); and *bonding to teachers* (three items, sample item: "Most of my teachers treat me fairly," α =.66). The low reliability of the school engagement and bonding to teacher measures is likely because of the small number of items on these scales.

The two indicators of internalized distress were the Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985) (37 items, sample item: "I often have trouble making up my mind," α =.87); and a measure of *depressive symptomatology* taken from the Composite International Diagnostic Interview (CIDI; World Health Organization, 1994). Presence of depressive symptomatology was assessed based on reports of three symptoms: (1) feeling sad or depressed ("In your lifetime, have you ever had 2 weeks or longer when nearly every day you felt sad, empty, or depressed for most of the day?"), (2) anhedonia ("In your lifetime, have you ever had 2 weeks or longer when nearly every day other things you usually enjoyed?"), and (3) discouragement ("In your lifetime, have you ever had 2 weeks or longer when most of the day you were very discouraged about how things were going in your life?") Scores ranged from 0 (no reports of depression, anhedonia, or discouragement) to 3 (reports of all three).

The four indicators of externalizing problems were two measures of delinquency, history of *aggressive offending* (11 items, sample item "Have you ever beaten up, threatened, or physically attacked someone as part of a gang?" α =.76), and history of *income-related offending* (11 items, sample item "Have you ever taken something from another person by force, without a weapon?", α =.74), both derived from the Self Report of Offending (Huizinga, Esbensen, & Weihar, 1991); and two indicators of problematic involvement in alcohol and drug use, based on Chassin, Rogosch, and Barrera Jr. (1991): *substance abuse-related social*

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problems (17 items, sample item: "Have you ever had complaints from your family because of your drug and alcohol use?"), and *substance dependence* (10 items, sample item: "Have you ever felt such a strong urge or desire to drink or use drugs that you could not stop yourself from doing it?").

RESULTS

The relation between parenting style and adolescent adjustment was examined in a series of MANOVAs (one for each domain of adolescent functioning) with parenting style, gender, and ethnicity as independent variables. Because no significant interactions between parenting style and gender or ethnicity were found, gender and ethnicity were dropped from the analysis and the MANOVAs were re-run. In light of the significant relation between adolescent age and parenting style, and between ethnicity and parenting style, analyses were also conducted both with, and without, age and ethnicity as covariates (with ethnicity removed as an independent variable); because the results did not change when these covariates were included, findings from analyses that did not covary age or ethnicity are reported. Unless otherwise indicated, all significant pairwise comparisons of parenting style groups had Bonferroni-corrected significance levels of p<05 or less.

Psychosocial Development and Parenting Style

Comparisons of adolescents from different parenting style groups indicated significant o differences in psychosocial development (F(12,2,289)=7.76, p<.001) (see Table 1). Adolescents with authoritative parents reported greater temperance and more empathy than all other adolescents, and greater responsibility than adolescents with authoritarian or neglectful parents. Adolescents from authoritarian homes reported greater empathy and temperance than those from neglectful homes. Adolescents from indulgent homes, but did not differ from those from neglectful homes on the other measures of psychosocial functioning. Adolescents from neglectful homes reported significantly lower resistance to peer pressure than adolescents from authoritarian homes, and tended to report lower resistance to peer pressure than adolescents from adolescents from indulgent or authoritarian homes, and tended to report lower resistance to peer pressure than adolescents from indulgents from resistance to peer pressure than homes, and tended to report lower resistance to peer pressure than adolescents from indulgent pressure than adolescents from indulgent pressure than adolescents from indulgent or authoritarian homes, and tended to report lower resistance to peer pressure than adolescents from indulgent pressure than adolescents from authoritative homes.

Academic Competence and Parenting Style

The MANOVA indicated significant differences in academic competence as a function of parenting style (F(12, 2, 139)=5.27, p<.001). Adolescents with authoritative parents reported higher grades than adolescents with neglectful parents, and stronger school orientation, school engagement, and bonding to teachers than adolescents with indulgent or neglectful parents. Adolescents with authoritarian parents reported higher grades and stronger school orientation and school engagement than adolescents with indulgent or neglectful parents, and stronger bonding to teachers than adolescents with indulgent or neglectful parents, and stronger bonding to teachers than adolescents with neglectful parents. Adolescents from indulgent and neglectful homes did not differ with respect to academic competence.

Internalized Distress and Parenting Style

Adolescents' reports of internalized distress differed significantly by parenting style (F(6, 1,538)=2.96, p=.01). Adolescents with authoritative or authoritarian parents reported significantly less anxiety than those with neglectful parents; no other pairwise comparisons were significant. The groups did not differ with respect to reports of clinical symptoms of depression.

Externalizing Problems and Parenting Style

Adolescents' reports of externalizing problems differed significantly by parenting style (F(12, 2, 301)=6.43, p<.001). Adolescents with authoritative parents scored lower on all four measures of externalizing than adolescents from indulgent or neglectful homes, but did not differ from adolescents with authoritarian parents on any index. Adolescents with authoritarian parents reported less externalizing than those from indulgent or neglectful homes with respect to both measures of offending, but did not differ from those from indulgent homes with respect to substance use. Adolescents from indulgent families reported fewer substance abuse-related social problems and less substance dependence than did those from neglectful families, but did not differ with respect to offending.

DISCUSSION

Within a large sample of mainly poor, predominantly minority, urban juvenile offenders, patterns of relations between adolescents' characterizations of their parents' behavior and their scores on measures of competence and adjustment are similar to those found in heterogeneous community samples and in studies of white, affluent, suburban youth. In general, juvenile offenders who describe their parents as authoritative are more psychosocially mature, more academically competent, less prone to internalized distress, and less likely to engage in problem behavior than their peers, whereas those who describe their parents as neglectful are less mature, less competent, and more troubled. Adolescents who characterize their parents as either authoritarian or indulgent typically fall somewhere between the two extremes. These patterns cannot be attributed to ethnic differences in parenting style, nor do they vary as a function of adolescents' ethnicity or gender.

Our results provide mixed support for the contention that adolescents raised in disadvantaged neighborhoods may not be as harmed by authoritarian parenting as are those who grow up under more advantaged circumstances. In contrast to findings from studies of community samples, which typically show that adolescents from authoritarian homes report more internalized distress than adolescents from authoritative homes, we do not find evidence favoring adolescents from authoritative homes in this domain. However, the predicted advantages for adolescents from authoritative homes with respect to psychosocial maturity were found, and, more importantly, in no instance did adolescents from authoritarian homes significantly outperform those from authoritative homes. Thus it is not that authoritarian parenting is good for poor, urban, ethnic minority adolescents, but, rather, that authoritarian parenting *may not be as bad* for these adolescents as it has been shown to be for their middle-class, suburban, white counterparts.

Juvenile offenders who characterize their parents as indulgent are less academically competent and more prone to delinquency than those raised in authoritative homes; additionally, indulgently raised adolescents score lower on several measures of psychosocial maturity. Contrary to studies of community samples, however, with the exception of externalizing problems, no significant differences in functioning were observed between adolescents from indulgent homes and those from neglectful homes. In concert with the general lack of significant differences observed between adolescents from authoritative and authoritarian families seen here, the general lack of significant differences between adolescents from indulgent versus neglectful homes suggests that it is parental control, rather than parental warmth, that is the critical influence on functioning in the current sample. This suggestion is in keeping with the observation that adolescents growing up in disadvantaged and often dangerous neighborhoods profit especially from parenting that is firm and protective (e.g., Furstenberg et al., 1999). One must be cautious in interpreting the findings from the present analysis, given its crosssectional design and reliance on self-report data gathered entirely from the adolescents themselves. We cannot rule out either reverse causality or third-variable explanations, although the relative demographic homogeneity of the sample makes such third-variable accounts less likely. In the absence of longitudinal or experimental data, the findings must be viewed as preliminary. Nevertheless, the comparability of the findings reported here and those reported in studies of community samples is noteworthy.

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REFERENCES

Cernkovich S, Giordano P. School bonding, race and delinquency. Criminology 1992;30:261–291.

- Chassin L, Rogosch F, Barrera M Jr. Substance use and symptomatology among adolescent children of alcoholics. Journal of Abnormal Psychology 1991;100:449–463. [PubMed: 1757658]
- Conger R, Ge X, Elder G Jr. Lorenz F, Simons R. Economic stress, coercive family process, and developmental problems of adolescents. Child Development 1994;65:541–561. [PubMed: 8013239]
- Furstenberg, F., Jr.; Cook, T.; Eccles, J.; Elder, G., Jr.; Sameroff, A. Managing to make it: Urban families and adolescent success. University of Chicago Press; Chicago: 1999.
- Greenberger E, Josselson R, Knerr C, Knerr B. The measurement and structure of psychosocial maturity. Journal of Youth and Adolescence 1974;4:127–143.
- Huizinga D, Esbenson F, Weihar A. Are there multiple paths to delinquency? Journal of Criminal Law and Criminology 1991;82:83–118.
- Knight G, Virdin L, Roosa M. Socialization and family correlates of mental health outcomes among Hispanic and Anglo American children: Consideration of cross-ethnic scalar equivalence. Child Development 1994;65:212–224. [PubMed: 8131648]
- Lamborn S, Mounts N, Steinberg L, Dornbusch S. Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. Child Development 1991;62:1049–1065. [PubMed: 1756655]
- Mason C, Cauce A, Gonzales N, Hiraga Y. Neither too sweet nor too sour: Problem peers, maternal control, and problem behavior in African American adolescents. Child Development 1996;67:2115– 2130. [PubMed: 9022233]
- Reynolds, C.; Richmond, B. Manual for the Revised Children's Manifest Anxiety Scale. Western Psychological Services; Los Angeles: 1985.
- Schubert C, Mulvey E, Cauffman E, Steinberg L, Losoya S, Hecker T, Chassin L, Knight G. Operational lessons from the pathways to desistance study. Youth Violence and Juvenile Justice 2004;2:237– 255.
- Steinberg L. We know some things: Adolescent-parent relationships in retrospect and prospect. Journal of Research on Adolescence 2001;11:1–20.
- Steinberg L. Risk-taking in adolescence: What changes, and why? Annals of the New York Academy of Sciences 2004;1021:51–58. [PubMed: 15251873]
- Steinberg L, Lamborn S, Darling N, Mounts N, Dornbusch S. Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. Child Development 1994;65:754–770. [PubMed: 8045165]
- Steinberg L, Mounts N, Lamborn S, Dornbusch S. Authoritative parenting and adolescent adjustment across various ecological niches. Journal of Research on Adolescence 1991;1:19–36.

Weinberger D, Schwartz G. Distress and restraint as superordinate dimensions of self-reported adjustment: A typological perspective. Journal of Personality 1990;58:381–417. [PubMed: 2213473]
World Health Organization. Composite International Diagnostic Interview (CIDI) researcher's manual. American Psychiatric Press; Washington D.C.: 1994. NIH-PA Author Manuscript

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TABLE 1

	Authoritative	Authoritarian	Indulgent	Neglectful	Univariate F
Psychosocial Functioning					
Temperance	3.22 (.91) ^a	2.93 (.91) ^b	2.89 (.90) ^{b,c}	2.64 (.74) ^c	15.57 (3, 764) ^{***}
Empathy	4.06 (.79) ^a	3.54 (.90) ^b	3.59 (.90) ^b	3.20 (.88) ^c	17.30 (3, 764) ^{***}
Responsibility	3.15 (.54) ^a	3.00 (.52) ^b	3.04 (.45) ^{a,b}	2.93 (.41) ^b	6.03 (3, 764) ^{***}
Resistance to peer influence	2.97 (.64) ^{a,b}	3.03 (.63) ^a	3.04 (.55) ^a	2.92 (.54) ^b	3.95 (3, 764) ^{**}
Academic Competence					
Grades	4.59 (1.74) ^{a,b}	$5.00(2.09)^{a}$	3.94 (1.91) ^b	3.98 (1.92) ^b	6.48 (3, 714) ^{***}
School orientation	3.98 (.57) ^a	3.78 (.64) ^b	3.46 (.76) ^b	3.36 (.73) ^c	16.61 (3, 714) ^{***}
School engagement	.21 (.67) ^a	.26 (.66) ^a	–.20 (.72) ^b	07 (.69) ^b	7.35 (3, 714)***
Bonding to teachers	3.70 (.81) ^a	3.46 (.94) ^{a,b}	3.26 (.86) ^{b,c}	3.14 (.77) ^c	7.29 (3, 714)***
Internalized Distress					
Anxiety	$11.11 (6.60)^{a}$	$9.55 (6.40)^{a}$	10.37 (5.42) ^{a,b}	$11.04 (5.86)^{a,b}$	3.28 (3, 713) [*]
Depression	.30 (.60)	.44 (.80)	.62 (.90)	.38 (.72)	NS.
Externalizing Problems					
Aggressive offenses	.22 (.16) ^a	.24 (.18) ^{a,b}	.33 (.21) ^{b,c}	.37 (.21) ^{b,c}	$10.56\left(3,769 ight)^{***}$
Income-related offenses	.21 (.21) ^a	.27 (.25) ^b	.38 (.35) ^b	.44 (.24) ^c	20.35 (3, 769) ^{***}
Substance abuse-related problems	2.28 (3.48) ^a	3.52 (4.32) ^{a,b}	4.23 (4.48) ^b	5.50 (4.49) ^c	$12.84(3,769)^{***}$
Substance dependence	.91 (1.91) ^a	1.75 (2.96) ^{a,b}	2.05 (2.65) ^b	2.96 (2.94) ^c	$17.76(3, 769)^{***}$

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p<.05.p<.01.p<.001.