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Neighborhood influences and child development: A prospective study of substance abusers' offspring

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Abstract
In this 2-year prospective study, psychopathology and competence among drug abusers' offspring were examined in relation to characteristics of their neighborhoods. The sample consisted of 77 children of cocaine and opioid addicts with a mean age of 12.3 years at baseline and 14.2 years at follow-up. Outcomes examined included psychiatric diagnoses, dimensional symptom indices, and aspects of everyday behavioral competence. Links involving neighborhood variables varied by gender, wherein boys reflected greater deterioration than girls when neighborhoods had high crime rates and high proportions of low-income households. Conversely, girls appeared to benefit more than boys from the presence of professional adults in the community. Overall, neighborhood indicators accounted for more variability in changes in child adjustment over time than did indices of maternal psychopathology. Findings are discussed in terms of developmental changes in the salience of exosystemic and familial forces, and implications for interventions are outlined.

In contemporary American society, distressingly high numbers of children are exposed to parental substance use. Over 3 million American women regularly use illicit drugs such as cocaine and opioids (National Center on Addiction and Substance Abuse, 1996), and up to 80% of these women are mothers of at least one child. Estimates are that at least 6 million children in this country live with at least one substance-abusing parent (Mrazek & Haggerty, 1994).

Research evidence concerning children of drug abusers suggests that the incidence of psychopathology increases markedly with chronological age. During infancy and the preschool years, a few areas of disturbance have been identified (e.g., problems with attention), yet there is little evidence of any global psychiatric maladjustment (Hawley & Disney, 1992; Mayes & Bornstein, 1997). By late childhood or adolescence, however, a range of adjustment problems have been documented. In comparison with offspring of nonaddicted adults, older children of drug abusing parents have been found to manifest significantly higher symptomatology in both the internalizing and externalizing domains (Wilens, Biederman, Kiely, Bredin, & Spencer, 1995; deCubas & Field, 1993; Moss, Vanyukov, Majumder, Kirisci, & Tarter, 1995).

In our own prior work with substance abusers' children (Luthar, Cushing, Merikangas, & Rounsaville, 1998), we have examined the incidence of major psychiatric disorders, as well as risk and protective forces related to adjustment in diverse spheres. In a sample of 78 children of cocaine- and opioid-addicted mothers, we found that almost two thirds had

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at least one major psychiatric disorder by the time they were 12 years old on average. Significant associations with child outcomes were found for several maternal and child characteristics. Poorer child functioning was linked with greater maternal psychiatric disturbance and sensation seeking and with lower child cognitive abilities. Unexpectedly, vulnerability effects were also suggested for *higher* cognitive abilities among mothers (particularly African Americans), possibly reflecting greater distress or societal censure among addicted mothers who were relatively well-educated or from relatively privileged backgrounds.

The present study extends our prior research on drug abusers' children in two major ways. First, the earlier effort (Luthar et al., 1998) was a cross-sectional investigation, whereas this report presents 2-year prospective data. When originally assessed, most children in the cohort studied were preadolescents such that by the time of follow-up assessments many were in a developmental phase representing high risk for the onset of several behavioral disturbances (see Capaldi, Crosby, & Stoolmiller, 1996; Moffitt, 1993; Jessor & Jessor, 1977).

Second, we examine a set of vulnerability and protective factors of potentially high significance during the late childhood and adolescent years: characteristics of neighborhoods. Whereas primary caregivers strongly affect children's adjustment in the early years, as children grow and move beyond the confines of the home, influences in the wider community assume increasing importance (Aber, Gephart, Brooks–Gunn, & Connell, 1997; Luthar, 1999). Accordingly, our effort here was to move beyond proximal influences involving the immediate family to consider distal features of the exosystemic environment.

A series of prior empirical findings attested to the value of examining neighborhood influences on at-risk children and adolescents. Researchers have demonstrated that children living in relatively affluent communities (e.g., where a high percentage of adults are in managerial or professional occupations) tend to display relatively low levels of aggression and high IQ scores and are more likely to graduate from high school (Brooks–Gunn, Duncan, Klebanov, & Sealand, 1993; Connell, Spencer, & Aber, 1995; Duncan, Brooks–Gunn, & Klebanov, 1994; Kupersmidt, Griesler, DeRosier, Patterson, & Davies, 1995). In parallel, a high prevalence of low-income neighbors has been linked with greater behavior problems as well as poorer educational outcomes among youth (Brooks–Gunn et al., 1993; Duncan et al., 1994), and there is evidence that neighborhood disadvantage can potentiate the effects of life stress and violence exposure on levels of child aggression (Attar, Guerra, & Tolan, 1994).

Several theories have been advanced to account for the mechanisms via which neighborhoods might affect children. As summarized by Brooks–Gunn (1995), *"neighborhood resource"* theories draw attention to the salutary effects of better quality services in high-income areas (e.g., schools, parks, or police protection), as well as the opportunities available for prosocial learning through organized activities (such as scouts or team sports). *"Contagion"* theories emphasize the role of peer influences in spreading problem behaviors such as delinquency or teen parenthood (Crane, 1991). Theories on *"collective socialization"* draw attention to the importance of neighborhood role models, as well as the involvement of community adults in monitoring youth, as important ingredients in their successful socialization (Kasarda & Janowitz, 1994; Sampson, 1992; Duncan et al., 1994).

The importance of examining neighborhood influences on substance abusers' offspring is underscored by their potentially heightened salience for these youngsters in particular. Cocaine and heroin addiction are disproportionately prevalent in areas with high rates of juvenile delinquency, crime, unemployment, poverty, crowding, and substandard housing (Harries, 1990; Nurco, Shaffer, O'Grady, Lerner, & Hanlon, 1995; Nurco, Shaffer, & Cisin, 1984). Furthermore, parents affected by substance use are often compromised in their capacities to provide children with effective supervision and positive role models (Luthar & Suchman, in press; Tarter, Blackson, Martin, Loeber, & Moss, 1993),

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rendering these youngsters particularly vulnerable to negative socializing influences within the broader community.

In considering neighborhood indices within this study, of central interest to us were effects moderated by gender, for boys are typically more reactive to community influences than are girls. Among elementary school children, for example, neighborhood characteristics have been found to affect boys' achievement-test scores more so than those of girls (Entwisle, Alexander, & Olson, 1994). Among African American adolescents, boys living in middle-class neighborhoods are more likely than others to graduate from high school (e.g., Connell, Halpern–Felsher, Clifford, & Crichlow, 1995; Ensminger, Lamkin, & Jacobson, 1996); parallel neighborhoods effects have not been found for girls.

Findings of such gender differences typically have been interpreted in terms of the greater exposure of boys to community-level forces (Luthar, 1999). Boys are more likely to participate in neighborhood activities than girls and may thus benefit more from high levels of resources that exist in affluent communities. Concomitantly, girls are more likely to be restricted to the home in dangerous inner-city neighborhoods, and thus remain more shielded than their male counterparts from negative community influences (Ensminger et al., 1996; Entwisle et al., 1994).

Operationalization of Constructs

Strategies used to operationalize constructs at the 2-year follow-up paralleled those used with this cohort at baseline (see Luthar et al., 1998), with *child outcomes* measured based on multiple domains, methods, and informants. Children's psychopathology was assessed via both categorical indices (psychiatric diagnoses, based on both maternal and child report) and dimensional ones (symptom ratings by mothers), because these can each capture different aspects of child psychopathology (Clarke et al., 1992; Ollendick & King, 1994). In prospective analyses reported here, we also examined a maladjustment domain not considered at baseline (as incidence levels were too low at the time)—that is, substance use among the children as reported by both parent and child. The importance of considering this as an outcome is evident in findings of high rates of drug abuse among relatives of addicts (Croughan, 1985; Mirin, Weiss, Griffin, & Michael, 1991; Rounsaville et al., 1991) and of links between parental drug use and initiation of use among adolescents (Johnson, Schoutz, & Locke, 1984; Kandel, Kessler, & Margulies, 1978; McDermott, 1984).

In addition to these diverse symptom indices, we also examined children's everyday behavioral competence based on maternal and child reports, as well as their academic achievement, via standardized tests. These domains were assessed in view of evidence that psychopathology and competence represent conceptually distinct dimensions. Many children are able to maintain superior levels of behavioral competence in everyday life, even as they experience high levels of personal distress (Luthar, 1991; Luthar, Cicchetti, & Becker, in press).

Neighborhood characteristics were represented on three salient dimensions: concentration of low income residents, presence of economically successful working adults, and crime rates in the area. Frequently examined in prior research (e.g., Brooks–Gunn, Klebanov, & Duncan, 1996; Corcoran & Adams, 1997; Coulton, Korbin, Su, & Chow, 1995; Crane, 1991; Duncan et al., 1994; Ensminger et al., 1996), such neighborhood indices have been found to account for significant variability in children's outcomes even after considering parents' socioeconomic levels (see Corcoran & Adams, 1997; Duncan et al., 1994; Ensminger et al., 1996; Kupersmidt et al., 1995).

With regard to potential mechanisms of influence, areas with a high concentration of low-income residents typically have few resources and poor social organization, problems which often result, in turn, in inadequate monitoring and supervision of youth (Coulton et al., 1994; Figueira–McDonough, 1991; Kasarda & Janowitz, 1994; Sampson, 1992; Sampson & Groves, 1989). By the same token, the presence of economically successful working adults tends to foster disciplined habits among youth themselves, due to increased

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collective socialization as well as augmented social resources (see Wilson, 1991). Finally, high crime rates in impoverished urban areas frequently reflect both social contagion and negative socialization processes (Wilson, 1987). The most common pattern of criminal offending among juveniles is co-offending with a peer, typically from the same neighborhood (Reiss & Farrington, 1991), so that youth in crime-prone areas are highly vulnerable to involvement in delinquent behaviors. High crime rates also can reflect the presence of adults who have acquired status via illegal acts, individuals who serve as highly visible role models for many economically disadvantaged adolescents (e.g., Richters & Cicchetti, 1993).

Maternal Functioning and Child Characteristics

To determine the degree to which previously identified vulnerability and protective factors (Luthar et al., 1998) may be linked with changes in youngsters' adjustment across a 2-year period, we also reexamined, within longitudinal analyses, the maternal and child characteristics considered in our original cross-sectional study. *Maternal characteristics* included diverse aspects of functioning which tend to be particularly problematic among addicted women, including indices of overall psychopathology, aspects of personality, levels of sensation seeking, and cognitive abilities (see Luthar et al., 1998, for a review). *Child attributes* included cognitive abilities, as well three sociodemographic characteristics that often serve as proxies for risk and protective influences in adjustment: gender, age, and ethnicity.

In summary, the focus of this 2-year prospective study was on neighborhood characteristics in relation to adjustment patterns among substance abusers' children. Expectations were that the presence of negative neighborhood influences would be linked with greater deterioration over time among boys than girls, in both symptom indices and behavioral competence. Furthermore, we expected that neighborhood characteristics would account for more variability in changes over time than would indicators of maternal functioning which previously showed concurrent links with adjustment indices.

Methods

Cocaine- and opioid-addicted parents were recruited from the Yale Substance Abuse Treatment Unit's methadone and outpatient clinics as well as other substance-abuse treatment programs around the New Haven, Connecticut, area. Participation was voluntary, and interested individuals were accepted into the study if they met DSM-III-R criteria for cocaine or opioid dependence, had no history of psychosis, and provided consent for interviewing at least one biological offspring between the ages of 7 and 17 years. In order to maximize participation, study personnel posted announcements of the study in clinics and enlisted the support of clinicians who referred their clients to the study. Interviews were conducted with addicted parents and, where consent was provided, also with their children, spouses, and other first-degree relatives.

Sample

At Time 1 (baseline), a total of 137 children from 91 families participated in the study. Follow-up interviews were conducted 2 years later with 87% of the baseline cohort (i.e., 119 children from 77 families. To assess whether subjects missing at Time 2 differed from those who remained, *t* tests and chi-square analyses were conducted on child age, gender, and SES, child adjustment indicators and vulnerability and protective indices measured at Time 1. Of all the analyses conducted, only two yielded significant effects: children excluded at Time 2 had significantly *lower* drug-use scores at Time 1 as compared to those who remained in the sample, as well as a lower proportion of managerial employees in their communities.

As in our prior work (Luthar et al., 1998), only one child per family was included in all statistical analyses reported here, to guard against violation of statistical assumptions regarding nonindependence of observations. For families with more than one child, the oldest child was chosen.

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Of the 77 children included in these prospective analyses, 51% (n = 39) were boys and 49% (n = 38) were girls. Sixty-six percent (n = 51) of children were Caucasian and 34% (n = 26) African American. When initially assessed, these children were 12.3 years old on average (SD = 3.1). At Time 2, the mean age was 14.2 years (SD = 3.3), and 46% of the children were between 13 and 17 years of age (n = 35), 34% were between 9 and 12 years (n = 26), and 20% were 18 or 19 years old (n = 16).

Whereas our previous report was based on only those children whose mother was a substance abuser, we include here also those whose fathers (but not mothers) were addicts, for two reasons. First, maternal functioning was of central interest in the earlier study, whereas the focus in these analyses was primarily on extrafamilial factors (i.e., neighborhood characteristics). Second, we sought to maximize power of statistical analyses by including as many children as possible. (Note: Replicatory prospective analyses involving only addicted mothers' children were also conducted, and results were similar to those presented here).

This sample thus included children for whom the addicted parent was the mother only (32%; n = 25), both parents (55%; n = 42), or father only (13%; n = 10). Forty-eight percent of the mothers were addicted to both cocaine and opioids, 19.5% to opioids only, and 19.5% to cocaine only. A similar distribution was found among fathers, with 36%, 14%, and 22%, respectively, addicted to both cocaine and opioids, opioids only, and cocaine only.

Fifty-two percent of heads of households in this study were in unskilled, semiskilled, or skilled manual employment, and 58% of families fell in the two lowest of the five socioeconomic status categories of the Hollingshead and Redlich's (1958) scale. Forty-six percent (n = 35) of children in this study came from single mother households.

Data collection strategy

Data collection centered around interviews conducted with the addicted parents and their children. Of the 77 children who constitute the sample of this study, direct interviews were conducted with all the children at Time 1, 95% of their mothers, and 43% of fathers. At Time 2, the goal was to directly interview all the children and at least one primary caregiver. Of the latter, 88% were mothers, 7% were fathers, and 5% were other relatives (aunts or stepmothers). All interviews were conducted by master's-level clinicians with extensive didactic and in vivo training as well as ongoing supervision, and interviewers who evaluated the children's functioning were unaware of the psychiatric status of the parents.

Measurement of central constructs

Children's adjustment outcomes.[1] *Lifetime psychiatric diagnoses* among children were assessed via the childhood version of the Schedule for Affective Disorders and Schizophrenia administered at Time 1 to assess lifetime disorders, and at Time 2 to assess any disorders occurring since the previous (Time 1) assessment. The Kiddie-SADS (K-SADS: Chambers et al., 1985) was modified to incorporate DSM-III-R diagnoses with the assistance of Dr. J. Puig–Antich (Merikangas, Rich, Stevens, Fenton, & Szatmari, 1995). Based on K-SADS interviews with both children and their custodial parents, diagnoses were made using the "best estimate" procedure[2] (Leckman, Sholomskas, Thompson, Belanger, & Weissman, 1982).

As in our previous work, child psychiatric outcomes were examined within two broad categories: Affective/Anxiety and Disruptive

1. All adjustment indicators among children were measured at both Time 1 and Time 2 with a single exception: academic achievement was assessed only at follow-up.
2. The best estimate procedure involves a case review by experienced M.D.- or Ph.D.-level clinicians, who make a diagnosis based on all available information for each participant using standardized decision rules in the case of conflicting information. For adults and children at Time 1, available information included the diagnostic interview, as well as medical records and family history reports, and child-teacher ratings when available. At Time 2, child diagnoses were based on each of these sources except for family history reports. This widely used procedure has been found to have good interrater reliability in several studies (Leckman et al., 1982; Maziade et al., 1992).

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Table 1. *Incidence (%) of lifetime psychiatric disorders among children at Time 1 and Time 2*

	Time 1 Overall sample ($n = 77$)	Time 2 Overall sample ($n = 77$)	Time 1		Time 2	
			Girls ($n = 38$)	Boys ($n = 39$)	Girls ($n = 38$)	Boys ($n = 39$)
Any diagnosis	66	75	66	67	76	74
Any affective/anxiety disorder	46	53	53	38	66	41*
Major depression	23	27	29	18	37	18†
Dysthymia	7	13	8	5	16	10
Separation anxiety	13	18	18	8	24	13
Overanxious disorder	8	12	8	8	16	8
Any disruptive disorder	29	36	24	41	29	49†
Oppositional defiant disorder	21	31	18	23	29	33
Conduct disorder	10	16	5	15	13	18
Attention deficit hyperactivity	8	12	0	15*	3	21*
Any substance use disorder	12	18	13	10	21	15
Alcohol abuse/dependence	9	13	11	8	16	10
Drug abuse/dependence	7	16	8	5	16	15

Note: Rates of Time 1 disorders vary slightly from those previously reported with this cohort (Luthar et al., 1998) because these are based on children assessed at both Time 1 and Time 2 and includes children whose fathers, but not mothers, were drug abusers.
Differences between girls and boys: *$p < .05$; †$p < .10$.

behavior diagnoses (see Table 1). To establish reliability of best estimate diagnoses in both these categories, a subset of cases were rated by a second clinician, and kappa coefficients of .75 and 1.0 were obtained for children's Affective/Anxiety and Disruptive Behavior disorders, respectively.

Children's *substance use* was ascertained via symptom counts from the K-SADS, including both child and parent reports. A symptom was considered to be present if either the child or caregiver indicated that it existed, and all endorsed symptoms were added. This dimensional (as opposed to diagnostic) approach was chosen because subclinical levels of substance use are of interest in this at-risk group. Whereas among middle-class youth some drug experimentation may be statistically normative and without negative long-term repercussions (Johnston, O'Malley, & Bachman, 1985; Shedler & Block, 1990), among relatives of low SES drug addicts, such experimentation can often lead to abuse and dependence disorders over time (Luthar, Anton, Merikangas, & Rounsaville, 1993).

Children's levels of *internalizing and externalizing symptomatology* were assessed via the Child Behavior Checklist (CBCL; Achenbach, 1991), completed by the child's primary caregiver. The CBCL is a widely used measure of child symptomatology with excellent reliability and validity (Achenbach, 1991). Cronbach's alpha coefficients of internal consistency were .89 and .91, respectively, for internalizing and externalizing symptoms at Time 1 and .92 and .95 at Time 2.

Social competence was assessed via the Social Adjustment Interview for Children and Adolescents (SAICA; John, Gammon, Prusoff, & Warner, 1987), administered to both children and primary caregivers. This 77-item measure assesses everyday functioning across four domains: home, school, spare time activities, and peer relations. High scores on this instrument reflect relatively poor functioning. Good reliability and validity have been reported (John et al., 1987), and in this study alpha coefficients for mother and child report were .89 and .86 at Time 1 and .89 and .85 at Time 2, respectively.

Academic achievement, assessed only at Time 2, was measured via the Wide Range Achievement Test—3 (WRAT; Wilkinson, 1993) with administration by trained interviewers. The WRAT has three subtests which measure academic abilities in arithmetic, spelling, and reading. This instrument has ex-

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cellent psychometric properties, and scores are highly correlated with both school grades and IQ test scores (Sattler, 1983). As an overall gauge of achievement, the average standard score across the three subtests was used in analyses reported here.

Vulnerability and protective factors.[3] Characteristics of the children's *neighborhoods* were ascertained by mapping children's addresses at baseline assessments to 1990 census tracts. Census tracts are subdivisions of communities (usually including between 4,000 and 6,000 persons) that are determined in collaboration with local committees to represent demographically homogeneous areas approximating neighborhoods. Two indices representing the economic status of the neighborhood were ascertained. Following Brooks–Gunn et al. (1993), fractions of *low income households* (annual income less than $10,000) and of *persons employed in management level positions or higher* were respectively used as indices of the concentration of poor residents and of economically successful working adults in the child's neighborhood. *Community-level crime* was ascertained via Uniform Crime Report data compiled by local police departments (Department of Public Safety, Division of Police, 1995). These reports include annual incidents of FBI index crimes (murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft). Rates represent the total number of offenses that occurred within a town during the preceding year, divided by the population of that town at the time baseline data were collected. Although this measure has some limitations (e.g., underestimation of true crime rates, see O'Brien, 1985; Sampson, 1985; Sherman, 1989), it is useful as a broad indicator of both criminal activity within communities and of social determinants of individuals' psychopathology (e.g., Coulton et al., 1995; Gephart, 1997).

Families in this sample were spread across a total of 16 towns and 55 different census tracts in and around the New Haven, Connecticut, area. Neighborhood characteristics reflected some variability, with local crime rate ranging from 1 to 15% (mean = 9%), fraction of white-collar workers from 3 to 31% (mean = 14%), and proportion of low-income residents from 2 to 44% (mean = 16%).

Measurement of *maternal psychological functioning* at Time 1 was described in detail in our previous report (Luthar et al., 1998). Briefly, two composite scores were derived based on reduction of data (via factor analyses) on maternal psychiatric diagnoses, suicidal history, scores on the Retrospective Self-Report of Inhibition (RSRI; Reznick, Hegeman, Kaufman, Woods, & Jacobs, 1992), and subscales from Zuckerman's (1984) Sensation Seeking Scale and the Multiphasic Personality Questionnaire (Tellegen, 1982). The first composite, "Maternal sensation seeking," represented high maternal sensation seeking and low constraint in behaviors. The second factor, "Maternal Psychiatric Illness," included total number of psychiatric diagnoses, suicidal history, behavioral inhibition scores, and both negative and positive affectivity.

Cognitive abilities of both mothers and children were assessed by the Peabody Picture Vocabulary Test—Revised (PPVT-R; Dunn & Dunn, 1981).

Results

Checks on sample heterogeneity

At the outset, preliminary analyses were run to determine whether children for whom the addicted parent was (a) only the mother, (b) the father, or (c) both differed on indicators of psychopathology and competence (at Time 2) and neighborhood variables (Time 1). Of the 11 analyses conducted, less than half (three) were statistically significant. Children for whom the substance abusing parent was the father only had lower lifetime Affective/Anxiety disorders than the other two groups, and were less likely to live in neighborhoods with high proportions of low-income families and with high crime (all $ps < .05$). Similar analyses were conducted to ascertain if differences existed between children whose parents were addicted to cocaine, opioids, or both. No significant differences were found.

3. All variables described in this section were assessed only at Time 1.

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Descriptive data

Parents of children in this study manifested high psychiatric disturbance in addition to substance abuse or dependence: overall, 90% of mothers and 80% of fathers had experienced a comorbid psychiatric disorder.[4] At baseline assessments, 88% of the mothers ($n = 68$) had at least one lifetime Affective or Anxiety disorder and 25% ($n = 19$) were diagnosed with Antisocial Personality Disorder. Among fathers, 53% ($n = 48$) had experienced a lifetime Affective/Anxiety disorder, and 42% ($n = 30$) were diagnosed with Antisocial Personality Disorder.

Table 1 presents rates of lifetime psychiatric disorders among children at both baseline and follow-up. As noted earlier, 66% of youth in this cohort had a history of at least one disorder at Time 1 ($n = 51$), and by Time 2 this proportion had increased to 75% ($n = 58$). Mean scores and standard deviations on all dimensional outcomes are presented in Table 2. Overall, scores on these dimensions showed little change over time.

To characterize the extent of dysfunction among the children during the preceding year, clinical *t* scores were computed on CBCL scores. Using a cutoff of 60 (Luthar et al., 1998; Wilens et al., 1995), we found that 55% had a significant *t* score on at least one CBCL subscale at Time 2 (the comparable Time 1 value for this sample was 46%). In the overall Internalizing and Externalizing domains, 14% of children had significant *t* scores in each case at Time 2, as opposed to 12 and 13%, respectively, at Time 1.

Simple correlations among central variables are presented in Table 3. Indices of child psychopathology and competence (Time 2) were generally intercorrelated in expected directions, with the exception of lifetime Affective-Anxiety disorders which was unrelated to all other adjustment indicators. Among neighborhood variables, the proportion of low-income households was correlated with both crime rates and the presence of managerial employees (in positive and negative directions respectively); in addition, it was associated with African American ethnicity. Maternal characteristics measured at Time 1 generally showed weak associations with child adjustment indices assessed at Time 2.

Hierarchical multiple regression analyses

To ascertain predictors of changes in children's adjustment across the 2-year period, we conducted hierarchical multiple regression analyses with all continuous outcome measures as dependent variables. Categorical outcomes were not included because the number of children who had developed new psychiatric disorders between Time 1 and Time 2 was too small to permit meaningful statistical testing of changes over time (6 children of a total of 77, in each of the Affective/Anxiety and Disruptive disorder categories).

In equations examining neighborhood effects, the child's gender, age, and ethnicity were entered at the outset (see Cohen & Cohen, 1983). These were followed by the Time 1 score on the particular outcome variable being examined. The third block consisted of three neighborhood indicators—the fraction of low-income households, proportion of individuals employed at the managerial level or above, and neighborhood crime rate—with these variables allowed to enter in order of decreasing tolerance (Cohen & Cohen, 1983). Finally, a series of three interaction effects was entered to test for gender differences in relation to neighborhood characteristics. To avoid Type I errors, the interaction effects were examined individually only if the block as a whole yielded a significant increase in R^2.

The results of these analyses presented in Table 4 indicated that girls had higher academic achievement scores and somewhat better everyday behavioral competence at Time 2. Child age was positively associated with drug-use levels, and minority ethnicity showed a marginal association with lower academic achievement scores. Of the neighbor-

4. The lower percentage of fathers, as compared to mothers, who had experienced a psychiatric disorder should be interpreted with caution, given that a higher proportion of mothers were directly interviewed, and family history reports tend to yield more false negatives than do direct interviews (Kosten, Anton, & Rounsaville, 1992).

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Table 2. *Means and standard deviations on dimensional measures of children's functioning*

	Time 1		Time 2		Time 1				Time 2			
	Overall Sample		Overall Sample		Girls		Boys		Girls		Boys	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
CBCL Internalizing *t* score	47.69	11.20	48.59	11.2	46.78	10.30	48.68	12.15	47.58	11.36	49.58	11.00
CBCL Externalizing *t* score	47.17	11.30	47.3	11.3	47.59	10.50	46.71	12.20	45.78	11.40	48.79	11.60
SAICA												
Mother report	1.60	0.27	1.59	0.27	1.54	0.25	1.65†	0.27	1.53	0.29	1.65†	0.24
Child report	1.60	0.26	1.58	0.26	1.56	0.26	1.63	0.26	1.51	0.22	1.64*	0.20
WRAT-R standard score	—	—	96.23	13.70	—	—	—	—	99.23	8.43	93.31*	11.40

Differences between girls and boys: *$p < .05$; †$p < .10$.

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Table 3. *Intercorrelations among variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Gender																		
2. Age[b]	–.01																	
3. Minority ethnicity	.12	–.26*																
4. Socioeconomic status	–.05	–.10	–.21															
Children's adjustment outcomes																		
5. Affective/anxiety disorders[b]	–.25*	.21	–.01	.11														
6. Disruptive disorders[b]	.15	.10	.03	.12	.11													
7. CBCL: Internalizing[b]	.09	–.19	.05	.09	–.01	.25*												
8. CBCL: Externalizing[b]	.13	–.05	.06	.05	–.06	.61*	.57*											
9. SAICA: Mother report[b]	.21	.13	.13	.11	.11	.44*	.31*	.47*										
10. SAICA: Child report[b]	.27*	.11	.10	.02	.08	.40*	.07	.25*	.62*									
11. Drug use[b]	.07	.48*	–.03	.01	.15	.28*	.05	.14	.29*	.07								
12. Academic achievement[b]	–.29*	–.13	.19	–.29*	–.11	–.40*	–.10	–.28*	–.23*	–.21	–.23*							
Risk/protective indices																		
13. Low income households[a]	–.08	.34*	–.64*	.10	.08	–.05	.02	.07	–.05	.04	.00	–.07						
14. Managerial employees[a]	–.06	–.11	.11	–.08	.06	–.04	.05	–.15	–.03	–.10	.16	–.18	–.55*					
15. Crime rate[a]	–.14	.01	–.59*	.25*	.05	–.04	.16	.10	–.09	–.19	–.06	–.20	.60*	–.14				
16. Maternal psychiatric illness[a]	–.09	–.15	–.01	.26*	.05	.07	.19	.28*	.19	.05	–.11	–.10	–.01	.06	.14			
17. Maternal sensation seeking[a]	.09	.10	.03	–.15	.05	.17	.06	.18	.24*	.15	.06	–.12	.06	–.04	.02	–.02		
18. Maternal cognitive abilities[a]	.18	.20	.46*	–.26*	.14	.19	–.03	–.02	.13	.14	.12	.09	–.26*	.10	–.27*	–.13	.30*	
19. Child cognitive abilities[a]	.11	–.20	.56*	–.31*	.06	.09	–.03	.01	.04	.06	–.01	.48*	–.43*	.27*	–.47*	–.08	.15	.42

Note: [a]Measured at Time 1.
[b]Measured at Time 2.
*$p < .05$.

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Table 4. *Hierarchical multiple regression analyses involving neighborhood characteristics in relation to child functioning*

	Internalizing		Externalizing		SAICA (Mother)		SAICA (Child)		Drug Use		Academic Achievement	
Criterion	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2
Gender	.38	.00	2.61	.03	.11	.04†	.12	.08**	.43	.01	−5.92	.08**
Age	−.29	.02	−.24	.01	.00	.02	.00	.01	.46	.23***	−.41	.02
Minority ethnicity	−.33	.00	.73	.00	.01	.02	.05	.01	.60	.01	4.59	.04†
Socioeconomic status	.00	.00	.00	.00	.00	.04†	.00	.01	.03	.02	−.23	.08**
Time 1 score	.55	.25***	.61	.33***	.58	.26***	.46	.26***	.20	.07**		
Neighborhood indices												
Managerial employees (ME)	−1.7	.00	−16.11	.02	−.17	.00	−.35	.01	9.77	.04*	17.58	.01
Crime rate (CR)	35.03	.03†	31.02	.02	−.32	.00	−.60	.01	.17	.00	−29.93	.01
Low-income households (LIH)	9.87	.01	8.69	.01	−.21	.00	.22	.00	−.11	.00	49.57	.08[b]
Gender × ME	20.80	.01	16.08	.01	.43	.00					−66.96	.04*
Gender × CR	40.70	.02	87.69	.07**	1.36	.01					−3.83	.00
Gender × LIH	40.57	.04*	4.37	.00	1.95	.06**					16.16	.00
Total R^2		.38		.50		.45		.43		.39		.36
R^2 for neighborhood indices[b]		.11		.13		.07		.07		.05		.19

Note: As recommended by Aiken and West (1991), unstandardized regression coefficients are reported because standardized coefficients are inappropriate for use with interaction terms. All interaction terms in these analyses involve centered variables. *B* coefficients and R^2 change values were not examined for individual interaction terms if the block containing them did not yield an overall significant effect.

[a]Possibly a suppressor effect: zero order correlation is negative in direction.

[b]These include neighborhood characteristics both as main effects and in interaction terms.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

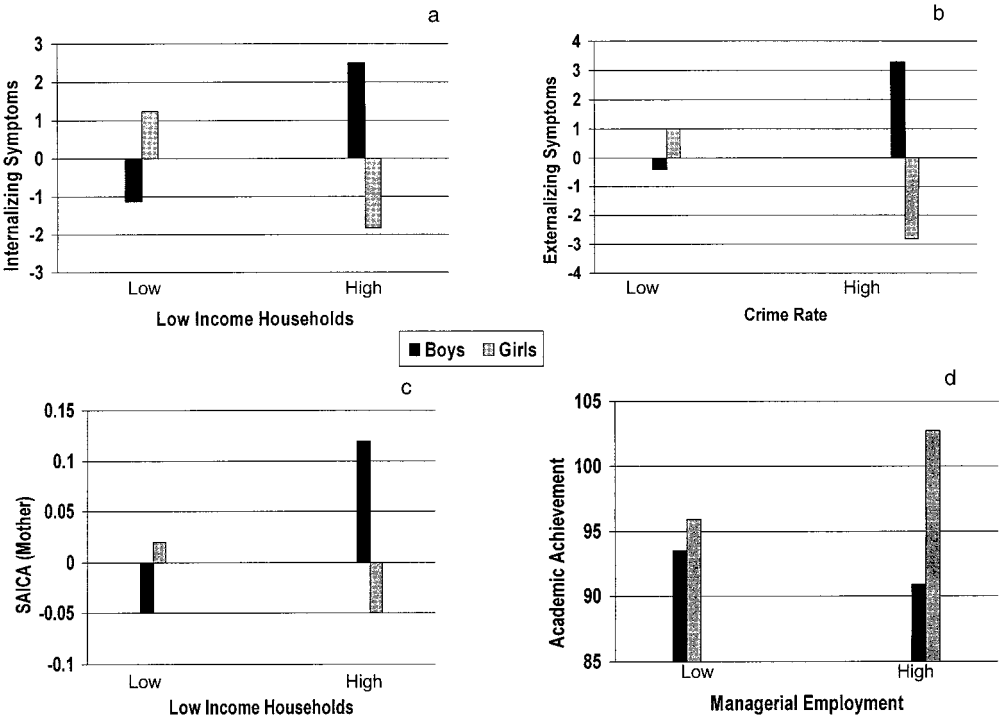


Figure 1. Boys' and girls' adjustment status as a function of neighborhood characteristics at baseline: changes over time (Figure 1a–c) and links with academic achievement at Time 2 (Figure 1d). Note: High SAICA scores represent low levels of everyday behavioral competence (Figure 1c).

hood variables, a high proportion of adults at managerial or higher levels was linked with *increases* in drug use over time, and a borderline link was found between crime rates at baseline, and increasing internalizing symptoms over time.

The block of interaction terms was significant in relation to child internalizing and externalizing symptomatology, mother-rated behavioral competence, and academic achievement. Within each of these blocks, component terms that achieved significance are indicated in Table 4, and the nature of the interactions is displayed in Figure 1. Figure 1a–c represents changes in adjustment over time, and residual Time 2 scores (after having considered Time 1 scores) are plotted on the *y* axis. Because academic achievement was not assessed at Time 1, *y*-axis values in Figure 1d represent standard scores achieved at Time 2.

As shown in the figure, among boys but not girls a high proportion of low-income households in the neighborhood was linked with increases in internalizing symptoms (Figure 1a) and with decreases in behavioral competence (Figure 1c). Similarly, high neighborhood crime was associated with increased externalizing symptomatology among boys but not girls (Figure 1b). In contrast to these effects, the presence of professional workers in the neighborhood appeared to be more beneficial for girls than for boys (Figure 1d).

To determine whether interactions involving the three neighborhood indices might more parsimoniously be captured by a single interaction involving family socioeconomic status (SES), we reran analyses presented in Table 4 with Gender × SES preceding all three neighborhood interaction terms. Interaction terms involving SES were nonsignificant in all cases, and results for neighborhood effects remained unchanged.

Hierarchical regression analyses were then

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conducted to explore prospective associations involving risk and protective factors previously identified cross-sectionally (i.e., those involving maternal characteristics and child attributes; Luthar et al., 1998). Results of these analyses are presented in Table 5 with associations that were previously found to be significant presented in italics for comparison purposes. Of the associations involving outcomes that were examined both cross-sectionally and prospectively, seven had been statistically significant at Time 1 (see Table 5), but none of these retained statistical significance in the prospective analyses.[5]

To compare the degree to which neighborhood variables and maternal characteristics accounted for changes in children's functioning over time, we also computed the unique changes in R^2 contributed by these two sets of variables (as both main effects and in interaction terms) in their respective regression equations. These values are displayed in the last rows of Tables 4 and 5. Across the different adjustment indices, total variance explained by neighborhood variables was 2–5 times as high as that explained by maternal attributes. A single exception to this pattern was found with maternal SAICA reports as the criterion. The interpretation of this finding, however, is complicated by the high shared method variance in the second set of analyses, where predictors and the outcome were each assessed via mothers' reports.

Discussion

Results of this study revealed several associations between neighborhood characteristics and children's adjustment outcomes that were moderated by gender. A high concentration of low-income adults, and high crime rates in communities, were both linked with significant deterioration in adjustment among sons of substance abusers, but not among their daughters. By contrast, girls but not boys appeared to benefit from the presence of many professional adults in their neighborhoods. Prospective analyses also revealed that, as compared to characteristics of neighborhoods, aspects of maternal psychopathology—which were found to relate cross-sectionally to children's adjustment when they were 2 years younger—showed weak links with changes in adjustment status over time. Finally, as this cohort of addicts' children moved from an average age of 12–14 years, the incidence of any lifetime psychiatric disorder was found to increase from 66% to an overwhelming high of 75%. Each of these findings is discussed in turn, followed by a delineation of the limitations of this research and implications of central findings for future treatment and policy.

Neighborhood risk and protective factors: Gender differences

Consistent with hypotheses, sons of substance abusers were found to manifest greater deterioration in adjustment over time than did their daughters, in the presence of neighborhood risk indices. High crime rate was associated with increasing externalizing symptomatology only among boys. Similarly, a high proportion of low-income households was linked with decreasing behavioral competence, and with increasing internalizing symptomatology, among boys but not girls. These findings resonate with results of several prior investigations, showing that males tend to be more affected by community influences, in part because they are less sheltered by their families (Connell, Aber, & Walker, 1995; Ensminger et al., 1996; Entwisle et al., 1994).

However, there is another interpretation of the findings we obtained: they reflect heightened parental sensitivity to adjustment problems among boys. Outcome variables in all previously mentioned interactions were based in mothers' perceptions of children's problems. Parents in disenfranchised, crime-ridden neighborhoods may often be particularly alert to signs of maladjustment in their sons, given awareness of the typically greater risk for long-term problems among males as compared to females within the ecological context

5. These analyses were rerun including only those children for whom the addicted parent was the mother ($n = 65$), to see if a better replication of prior findings might be achieved. In these analyses, replicative associations were found among only two indices (child gender with both mother- and child-rated behavioral competence).

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Table 5. *Prospective analyses replicating cross sectional associations involving maternal attributes in relation to child functioning*

	Internalizing		Externalizing		SAICA (Mother)		SAICA (Child)		Drug Use		Academic Achievement[a]	
Criterion	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2	*B*	ΔR^2
Gender	.38	.00	2.61	.03	.11	*.04*†	.12	.08**	.43	.01	−5.92	.08**
Age	−.30	.02	−.24	.01	.01	.02	.01	.01	.46	.23***	−.41	.02
Minority ethnicity	−.33	.00	.73	.00	.09	.02	.05	*.01*	.60	.01	4.59	.04†
Socioeconomic status	.04	.00	.03	.00	.00	.04†	.00	.01	.03	.02	−.23	.08**
Time 1 score	.55	.25***	.61	.33***	.58	.26***	.46	.26***	.20	.07**		
Maternal attributes												
Maternal psychiatric illness (MPI)	−.18	*.00*	.09	*.00*	.01	.02	.00	.00	−.08	.00	−.28	.00
Maternal sensation seeking (MSS)	.26	.01	.25	.01	.01	.02	.00	.00	.00	.00	−.43	.02
Maternal cognitive abilities (MCA)	−.04	.00	−.09	.02	.00	.01	.00	.00	−.02	.00	.07	.01
Cognitive abilities: Child (CCA)	−.03	*.00*	.02	.00	.00	*.00*	.00	.00	.02	.01	.36	.18***
MPI × MSS	.04	.00	.12	*.01*	.00	.01						
MCA × Ethnicity	−.09	.01	−.04	.00	.00	*.01*						
CCA × Ethnicity	−.06	*.00*	.00	.00	.00	.00						
Total R^2		.29		.41		.45		.40		.38		.41
R^2 for maternal variables[b]		.02		.04		.07		.03		.02		.02

Note: As recommended by Aiken and West (1991), unstandardized regression coefficients are reported because standardized coefficients are inappropriate for use with interaction terms. All interaction terms in these analyses involve centered variables. *B* coefficients and R^2 change values are displayed only for those interaction terms that were statistically significant in prior cross-sectional analyses (Luthar et al., 1998). Across all criterion variables in these prospective analyses, none of the blocks containing interaction effects achieved overall statistical significance.

[a]Academic achievement was not included in Time 1 analyses.

[b]These include all maternal attributes, both as main effects and in interaction terms.

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.

of urban poverty (Luthar, 1999; Seitz & Apfel, 1997).

In contrast with the aforementioned interaction effects involving neighborhood risks, our results with the third exosystemic indicator, the presence of professional workers in the community, revealed beneficial effects for girls but not boys. Dissonance with findings on the other neighborhood indices may reflect greater abilities of females to benefit from positive influences. Girls in this cohort consistently demonstrated better everyday competence and academic achievement than boys, and as behavioral competence reflects sophisticated coping (Masten & Coatsworth, 1998), they may have been better equipped to use positive resources in their communities. Consistent with this suggestion is previous evidence that among girls living in relatively low-risk communities, but not those in high-risk neighborhoods, superior coping skills tend to be linked with better adjustment outcomes (Spencer, Cole, Jones, & Swanson, 1997; see also Duncan, 1994).

Discrepancy with some previous findings on gender and neighborhood may partially reflect sociodemographic differences in the groups studied. Most of the participants in this investigation were Caucasian, whereas earlier findings that girls benefit less than boys from community resources (e.g., Connell et al., 1995; Ensminger et al., 1996; Entwisle et al., 1994) have generally been based on African American youth from impoverished neighborhoods. As Caucasian neighborhoods typically have more positive resources than African American ones (see Sullivan, 1996), it is possible that the girls in this cohort (who were relatively skilled in coping) may simply have had more community resources available to make use of.

Main effect associations

The presence of many managerial or professional neighbors was associated with *increasing* levels of drug use among youth in this study: a somewhat surprising finding, but not one without precedent. Higher levels of drug use have been found among adolescents attending schools in relatively affluent suburban areas, as compared to those in impoverished urban neighborhoods (Luthar & D'Avanzo, in press; Way, Stauber, Nakkula, & London, 1994). A recent statewide survey of high school youth in Connecticut (Beuhring, Saewyc, Stern, & Resnick, 1996) indicated that teenagers from the most affluent families reported far greater use of both cigarettes and alcohol than did youth of lower socioeconomic status (see also Kandel & Davies, 1996).

Results such as these might be understood in terms of both the absence of psychological deterrents, and the presence of motivations, for substance use among youth who do not contend with life in urban poverty. These adolescents remain more insulated from the negative ramifications of drug use than do inner-city teens, who routinely witness diverse pernicious effects within their local communities. Additionally, relatively affluent youth commonly report two salient motivations for using substances that are uncommon among their inner-city counterparts: to have fun (e.g., to fit in with peers), and to relieve negative feelings (see Buchanan, 1993; Luthar & D'Avanzo, in press; Way et al., 1994).

Although multivariate analyses conducted at baseline had indicated that ethnic minority youth in this cohort were less vulnerable to disorder than Caucasians (Luthar et al., 1998), this advantage was no longer evident in the profiles observed 2 years subsequently. In point of fact, African Americans reflected marginally lower scores on standardized achievement tests at Time 2. Collectively, these results resonate with other findings (see Luthar, 1999; Steele, 1997) that among youth in poverty the problems of minority children tend to show greater deterioration over time than those of Caucasians, with differences particularly in the domain of academic achievement.

Variability among offspring in relation to characteristics of addicted parents

Several parental attributes showed negligible associations with children's adjustment status in this study, including diverse indices of mothers' adjustment as well as the particular

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drugs that parents used (cocaine, opioids, or both). On the first of these, several significant concurrent associations had been found in prior analyses conducted when this cohort was 2 years younger. Recognizing that the lack of statistical significance does not establish similarity of groups compared (Pedhazur & Schmelkin, 1991), we offer some thoughts about these findings on parental characteristics.

The absence of previously identified links between dimensions of maternal psychopathology and child outcomes in no way implies that addicted mothers' adjustment is unimportant for their adolescent children; rather, it is probably a reflection of the chronically high distress among parents in this group. Substance-abusing mothers contend with inordinate pressures, of both intrapsychic and environmental origin (Luthar & Suchman, in press; Luthar & Walsh, 1995) such that by the time their children are well into the teen years, variations in maternal psychopathology can probably do little to explain child outcomes. Stronger associations might be found with actual parenting behaviors not measured here, such as consistency in monitoring and supervision of adolescent children (see Baldwin, Baldwin, & Cole, 1990; Luster & McAdoo, 1996; Gonzales, Cauce, Friedman, & Mason, in press).

Similar "ceiling effects" might account for our failure to find differences between children of parents addicted to opiates, cocaine, or both substances, at baseline as well as follow-up. Cocaine and opioid abusers each manifest serious disturbances in both personal adaptation and family functioning (Calsyn & Saxon, 1990; Fishbein & Reuland, 1994; Harden, 1998; O'Connor, Berry, Morrison, & Brown, 1995; Ripple & Luthar, 1996), factors which probably constrain the variability in adjustment outcomes manifested by children who grow up in their care.

The present findings with addicts' children have bearing on broader research-based inferences about the relative impact of parents versus neighborhoods on at-risk youth. Reviewing studies in the area, Lehman and Smeeding (1997) concluded that neighborhood effects are generally much weaker than are characteristics of families. Our own results indicate that the relative salience of these two forces depends in part on the variability of each within the particular group under study. When samples reflect relative homogeneity in familial indices as in this case (i.e., with high parental psychopathology), but relative heterogeneity in neighborhood characteristics, family indices are likely to show far weaker associations with adolescents' adjustment outcomes than are variables representing community influences.

Caveats and limitations

Given the absence of a comparison group, the high rates of childhood disorders detected in this study cannot be attributed solely, or even chiefly, to parental substance use. Many families in this sample were socioeconomically disadvantaged, and without comparative data on nonaddicted parents from similar backgrounds, the etiological role of parents' drug abuse remains equivocal.

The absence of a control group also precludes conclusions of whether associations we found are particular to offspring of treatment-seeking substance abusers. From both prevention and treatment perspectives, much can be gained by ascertaining risk and protective processes that are potent within particular groups at high risk (e.g., Cicchetti & Toth, 1995; Luthar, 1999). At the same time, comparison data could help assess the degree to which processes identified here might generalize to related subgroups, such as children of non-treatment-seeking addicts, and offspring of poor parents with psychiatric disorders other than drug abuse.

With regard to measurement, there are some limitations to the approaches used to assess neighborhood characteristics. While census tracts are determined in collaboration with local committees to be demographically homogenous and thus approximate neighborhoods, the extent to which these boundaries reflect meaningful "neighborhoods" from the perspective of area residents is unknown (Coulton, Korbin & Su, 1996; Korbin & Coulton, 1994; Tienda, 1991). In a similar vein, our measurement of crime rates in this

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study was based on overall incidence of criminal activity within a town, and it would be of interest to examine links found here using a more circumscribed geographical area to measure neighborhood crime.

The pattern of associations obtained also indicates possible limitations to our diagnoses of children's affective and anxiety disorders. Incidence of these disorders was unrelated to dimensional indicators of adjustment in this study, whereas disruptive childhood disorders showed strong associations. Similar findings have been obtained by several other researchers, wherein internalizing problems among youth were less reliably diagnosed than were externalizing ones (e.g., Epkins & Meyers, 1994; Jensen et al., 1995; Stanger & Lewis, 1993).

Rather than simply signaling measurement problems, however, the absence of links involving internalizing diagnoses may also partially reflect a commonly noted divergence between youngsters' ratings of their inner states as opposed to external manifestations of adjustment (see Luthar, 1991; Luthar et al., 1993). Furthermore, these findings may also derive from within-group heterogeneity, for youth with "pure" internalizing disorders typically reflect far less overall disturbance than those who have diagnoses of both internalizing and externalizing problems (see Caron & Rutter, 1991; Noam, Paget, Valiant, Borst, & Bartok, 1994; Miller–Johnson, Lochman, Coie, Terry, & Hyman, 1998).

In considering profiles across different outcome indicators, also noteworthy are the discrepancies between categorical and dimensional measures of overall psychopathology in this cohort. Whereas three in four youngsters had at least one lifetime psychiatric disorder, symptom counts based on mothers' reports indicated average scores that fell in a normal range (although 55% had elevated scores on at least one CBCL subscale). These discrepancies probably reflect a combination of two factors. First, categorical diagnoses involved disorders manifested at any time in the child's lifetime, whereas dimensional assessments pertained only to the preceding year. Second, diagnoses were based on interviews with the children and their parents, whereas CBCL scores reflect only perspectives of mothers, some of whom may have had limited awareness of their preadolescent and adolescent children's difficulties (particularly those of an internalizing nature).

The influence of neighborhood selection effects on the findings reported here cannot be ruled out. Although statistical analyses controlled for family socioeconomic status, which limits where families can reside, other factors such as family values, culture, and kinship ties may influence where individuals live, as well as developmental outcomes among their children. Thus, findings reported here should be interpreted cautiously, and with consideration of multiple facets which may be embedded within neighborhood characteristics.

A final limitation lies in the wide span of chronological ages of children in this study. The restricted sample size precluded any analyses of discrete subgroups separated by developmental phase, and necessitated, instead, controlling for age in all statistical analyses. In future research with appropriately large samples of addicts' children, it would be useful to examine neighborhood effects that are potentially specific to different stages of later childhood and adolescence.

Offsetting these various limitations are several strengths of this study, among the most significant of which is the high 2-year follow up rate of 85%—achieved with a population that is notoriously difficult to reevaluate in longitudinal research. Additional strengths lie in the availability of both psychiatric diagnoses and dimensional outcome indices based on multiple informants, as well in our consideration not only of familial influences (commonly examined in prior research on addicts' children) but also extrafamilial ones, with measurement of each again, based in diverse data sources. Insights obtained on community influences carry substantive implications for the design of future interventions, as elucidated in the discussion that follows.

Treatment and policy implications

Results of this study indicate that in future work with addicted parents there must be ex-

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plicit attention to community influences on their children, particularly their adolescent sons. Most existing parenting interventions for substance abusers focus heavily on issues of abstinence from drugs, with some attention to fostering positive parenting behaviors such as those related to warmth and discipline, and occasionally to parents' own emotional well-being (see Catalano, Gainey, Fleming, Haggerty, & Johnson, 1999; Greif & Drechsler, 1993; Harden, 1998; Kumpfer, 1991; Lief, 1985; Luthar & Suchman, in press; Zuckerman, 1994). There has been little effort to help these parents develop specific strategies for shielding their children from negative influences in their disenfranchised urban neighborhoods (Najavits, Weiss, Shaw, & Muenz, 1998).

Ethnographers (Burton, 1991; Jarrett, 1997) have delineated useful directions in this regard, based on findings of protective strategies that are often used expeditiously by inner-city families. These include the avoidance of dangerous areas, temporal use of the neighborhood (e.g., avoiding being outside in the evening hours), and restriction of children's relationships with deviant peers. Drug-abusing parents in treatment can also be helped to access good-quality institutional resources for their children, both locally and outside their communities. As Connell, Aber, and Walker (1995) have pointed out, youth services such as Little Leagues, Boys and Girls Clubs, and YMCAs are typically poorly represented in disadvantaged neighborhoods. This dearth of such institutional services, along with low resources in schools, results in a lack of attractive, organized, and positive after-school activities for youth, leaving them open to the allure of illegal activities with peers and adults in the community (Luthar & Burack, in press).

Beyond such interventions with substance-abusing parents in treatment, there is obvious value in policy efforts to improve the quality of life in poor urban neighborhoods. Reviewing relevant research evidence, Brown and Richman (1997) delineate two specific directions in this regard: the building of social capital, and the promotion of community participation and empowerment. Building social capital entails provision of opportunities to (a) increase social communication that reinforces positive community values (e.g., via rituals that recognize exemplary community figures and cleanup campaigns), and (b) foster intergenerational relationships (e.g., by involving adults in serving as mentors and sources of informal social control). Participation and empowerment of local residents entails the coalescing of communities to address decisions about and problems within their neighborhoods, measures which in turn increase collective support for positive community life.

Finally, results of this study also indicate the need for more explicit attention, among service providers, to the problems facing children of substance abusing parents who are *not* economically disadvantaged. Whereas distal risks are clearly less potent for these youth than their poor counterparts—given their relatively resource-rich communities—proximal risks can be equally powerful. The greater tendency of affluent teens to experiment with drugs (Luthar & D'Avanzo, in press), the frequent failure of caregivers to provide distressed youth with necessary help (see Puura et al., 1998) and the high risk of addiction following early experimentation among addicts' relatives (Luthar et al., 1993) conjointly underscore the need for attentiveness to *all* children of addicted parents—and not just those who contend with the relatively tangible risks represented by life in the everyday ecology of urban poverty.

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