The Role of Social Contexts and Special Education in the Mental Health Problems of Urban Adolescents

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We explored the perceptions that youth with and without self-reported mental health problems had of their social contexts (family, peer, and school) and the extent to which youth with mental health problems had received special education services in school. We examined data for 4,088 urban youth with self-reported externalizing, internalizing, comorbid, and no mental health problems in early adolescence. With regard to family context, students with comorbid problems reported significantly lower scores for parent attention to misbehavior than students without mental health problems, and students with internalizing problems reported significantly less positive parent–child relations than those with externalizing problems. With regard to peer context, students with externalizing and comorbid problems reported that significantly greater numbers of their friends were involved in risky behavior than did members of the other groups. With regard to school context, students with internalizing and comorbid problems reported feeling more anonymous and less well-liked by peers and teachers than students with externalizing problems. Significantly more internalizers and members of the comorbid group were in special education classes than expected. The majority of the students with self-reported mental health problems received services for learning disabilities.

Special and general educators need to be well informed about the mental health problems of youth because significant proportions of students can experience social and emotional problems that interfere with learning, yet few students with mental health problems receive school-based treatment in programs designed specifically for youth with emotional and behavioral disorders (EBD; Adelman & Taylor, 1999; Kauffman, 2001; U.S. Department of Education, 1998). Instead, youth with mental health problems receive scattered services from psychologists or counselors with enormous caseloads (Adelman & Taylor) or are placed in programs for youth with learning disabilities (Duncan, Forness, & Hartsough, 1995; Forness, 1990; Forness, Kavale, & Walker, 1999; San Miguel, Forness, & Kavale, 1996). This issue may be magnified for youth in urban schools, who may experience more severe mental health problems than do suburban and rural youth but receive less help because the urban schools have fewer resources to support them (Weist et al., 2000). Special education students may experience comorbid or co-occurring mental health problems at higher rates than their peers without disabilities; significant numbers of these youth can be both depressed and act out, yet even in special education settings, their emotional and behavioral problems may not be identified (Forness et al., 1999; Tankersley & Landrum, 1997). If students are to receive treatment for mental health problems, educators outside the field of EBD must be aware of their problems and the contexts in which they develop (Forness et al., 1999).

The development of mental health problems in youth occurs not merely within the individual child and his or her relationship with parents or caregivers (see Patterson, Reid, & Dishion, 1992) but also in the broader social contexts of families, peers, and schools (Coie & Jacobs, 1993). The risk for mental health problems may be significantly increased for youth in large urban centers because they may have a higher probability of experiencing family stress, affiliating with peers involved in risky behavior, and attending schools in violent and impoverished neighborhoods than youth from rural areas and small cities (Gorman-Smith, Tolan, & Henry, 1999).

Significant research has been devoted to (a) identifying the social forces that promote positive mental health outcomes for urban youth and (b) examining the role of social contexts in the development of *externalizing* mental health problems, including aggression, conduct disorders, antisocial behavior, and delinquency (see Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999; Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998; Patterson et al., 1992). Significantly less research has been devoted to examining the social contexts associated with *internalizing* problems (i.e., depression and withdrawal) or with complex, comorbid mental health problems of urban youth (i.e., wherein the same individual experi-

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ences multiple, co-occurring problems; Cichetti & Toth, 1998; Greenberg, Domitrovich, & Bumbarger, 2001; Loeber et al., 1998). Yet, students with different types of mental health problems might report differences in their social relationships across contexts. Identifying differences in the social lives of children experiencing mental health problems can lead to more targeted interventions in particular social contexts.

Previous research has revealed the importance of multiple social contexts in developing and maintaining externalizing, internalizing, and comorbid disorders. In the family context, maintaining a balance of warmth and control has long been considered a hallmark of effective parenting, and it has played a significant role in preventing and ameliorating externalizing problems (Baumrind, 1968; Patterson et al., 1992). For example, a study of single mothers in Chicago found that mothers who were able to strike a successful balance between warmth and control experienced fewer externalizing behavior problems among their adolescent sons (Florsheim, Tolan, & Gorman-Smith, 1998).

The balance of warmth and control in parenting appears to affect the development of externalizing and internalizing problems. Too little parental control can provide opportunities for youth to participate in externalizing activities. Poor supervision, poor communication, poor monitoring, physical punishment, and lack of closeness among family members have all been associated with urban boys' involvement in externalizing activities and the development of depression (Capaldi, 1991; Loeber et al., 1998). Parental support may actually outweigh the risk of growing up in a poor neighborhood with few resources and lead to positive mental health outcomes for urban youth. Spencer, Cole, DuPree, Glymph, and Pierre (1993) found that communication and positive relationships between urban adolescents and their parents helped to buffer the effects of living in high-risk urban settings.

Peers can play a substantial role in the development and maintenance of externalizing problems (Agnew, 1991; Elliott & Menard, 1996; Patterson & Dishion, 1985; Simons, Wu, Conger, & Lorenz, 1994). Rodkin, Farmer, Pearl, and Van Acker (2000) found that during childhood, aggressive and acting-out behaviors are likely to be supported by peer affiliations. Other studies have indicated that by adolescence, youth with externalizing problems are likely to associate with one another and participate together in antisocial and delinquent activities (Cairns & Cairns, 1994; Moffitt, 1993).

Less clear is the role of peers in the activities of youth with internalizing problems. Adolescents experiencing depression are less likely to spend time with, become attached to, and derive emotional support from friends (Armsden, McCauley, Greenberg, Burke, & Mitchell, 1990; Rubin et al., 1992). In addition, rates of depression, amount of substance use, and numbers of suicide attempts have been significantly higher for urban teens than for nonurban teens (Pastore, Fisher, & Friedman, 1996).

Relationships in school have also been associated with student mental health. For example, among urban youth, feeling committed to school in early adolescence is one factor that has been associated with reduced rates of later substance abuse, delinquency, teen pregnancy, and participation in violence (Hawkins, Catalano, & Miller, 1992). O'Donnell, Hawkins, Catalano, Abbott, and Day (1995) found that youth were more likely to report bonding and a connection to school when they experienced high levels of positive instruction and proactive classroom management.

Early adolescence is a prime developmental time for studying externalizing, internalizing, and comorbid mental health problems, because it represents a period in which externalizing problems begin to accelerate or worsen in the general population and depression begins to appear in greater numbers (Loeber & Keenan, 1994). Therefore, in our study we focused on the mental health problems of a large sample of urban youth, examining the social contexts (family, peer, and school) and special education placements of adolescents with self-reported externalizing, internalizing, and comorbid problems. We anticipated that youth with externalizing and comorbid mental health problems would report the most negative social experiences. In order to determine the extent to which urban youth were receiving school-based support for their self-reported mental health problems, we conducted a follow-up look at their special education status. We wanted to ascertain which students reporting difficulties were receiving special education services, and if so, under what categories of disability. Few, if any, studies in special education have taken a broad look at the social contexts and special education placements experienced by large numbers of urban youth with mental health problems.

Method

Participants

Data were drawn from the Chicago-based evaluation of the Comer School Development Program (see Anson et al., 1991, for details). The dataset for this study consisted of 19 public elementary (K–Grade 8) schools in the Chicago Public School System in which students were surveyed over the course of 4 or 5 years (between 1993 and 1997). The database provides a wealth of information about students' perceptions of their mental health and the social contexts of their lives, including their relationships with family members, peers, and school personnel.

Data were collected through two survey questionnaires—the *Adolescent Attitude Questionnaire* and *School Climate Questionnaire* (Anson et al., 1991)—which were administered to the students each school year. All measures were based upon students' perceptions of individual, family, peer, and school contexts. Questionnaire measures were developed as part of a prior evaluation of the Comer School Development Program in Prince George's County, Maryland, during which student responses to 5-point Likert scale items were grouped into the-

oretically driven constructs that were verified through factor analysis. Sample items from each of the constructs used in the present study are listed in the appendix, and descriptions of scales are provided in the Results section.

The internal consistency of each construct was calculated by pooling all contributing items (see Nunnally, 1978). Alpha values exceeded standards of acceptability with regard to comfort ranges for research scales recommended by DeVellis (1991), demonstrating the overall strength of the constructs for all groups of students.

The original dataset sample size was 10,306 participants, many of whom provided data over a number of years. This sample consisted predominantly of students of color, with a large majority of African American students (70.9%) and a smaller, yet substantial, proportion of Latino students (21.1%). Original data collection efforts were focused on high-need, high-poverty schools, and participating schools reported an average of 91% of students from low-income families. In addition, a substantial proportion of students were underachieving in academics, with 77.5% of students achieving below national norms in mathematics and 81.2% underachieving in reading over the 5 years of the project.

Participant Selection Criteria. For the purposes of this study, we focused on students in their eighth-grade year. Because mental health problems, particularly participation in risky behavior and problems with depression, appear to increase throughout early adolescence (Loeber & Keenan, 1994), we anticipated that by eighth grade, significant numbers of students would report experiencing externalizing and internalizing mental health problems. We began by selecting all students who had completed surveys in eighth grade. In addition, because students who were old for their grade were more likely to be involved in delinquent activities (Cairns & Cairns, 1994; Loeber et al., 1998), we decided to eliminate from the sample any student who had repeated a grade. These two criteria led to the selection of a group of 4,088 participants from the initial sample of 10,306.

Group Selection Measures. Participants selected for the eighth-grade cross-section were then assigned to one of four groups with mental health problems—externalizing (EXT), internalizing (INT), externalizing and internalizing (COMORBID), and no mental health problems (NONE)—on the basis of their self-reports of externalizing and internalizing problems as measured by scales from the *Adolescent Attitude Questionnaire*.

Externalizing problems. The measure of student externalizing behavior we used was drawn from the *National Youth Survey* (NYS), which was developed by Elliott and colleagues for the assessment of aggressive and delinquent behavior among adolescents ages 11 years to 19 years (Elliott, Dunford, & Huizinga, 1987; Elliott & Huizinga, 1983). In the present study, NYS items used for the externalizing scale ranged from covert acting-out behavior in school (i.e., cheated on tests and exams) and at home (i.e., lied to parents about where you were or whom you were with) to overt aggressive behavior (i.e., hit someone because you didn't like something someone said or did) to delinquent acts (i.e., brought alcohol or drugs to school, damaged public or private property). Students responded to a Likert-type scale, indicating whether they had ever participated or never participated in these delinquent and antisocial acts, and their scores were dichotomized to reduce substantial skewness in the data. A high score on this measure indicated a high rate of participation in externalizing behavior. The alpha value for the externalizing construct in the present study was .83.

Lack of internalizing problems. The measure of internalizing problems we used was a combination of items assessing depression and satisfaction with life. These dual criteria for internalizing problems were in line with Kazdin's (1993) definition of mental health: the absence of dysfunction and the presence of optimal functioning (see also Roeser, Eccles, & Strobel, 1998). To assess depression, we asked students to indicate how often they had felt worthless, sad, unhappy, or hopeless in the past year (American Psychiatric Association, 1994). To assess happiness with life, we asked students to respond to items indicating how well they had gotten things done, how happy they were with family interactions, and how happy they were with themselves. All questions were were in the form of a Likert-type scale. Unlike their scores for the externalizing measure, high scores for students on the internalizing measure indicated a lack of depression and high rate of satisfaction with life. The alpha value for the internalizing scale was .83.

Participants were selected for the externalizing, internalizing, and comorbid groups on the basis of scores on the externalizing and internalizing scales that were one standard deviation from the mean for girls or boys at eighth grade. We selected one standard deviation as the cutoff in order to include individuals in the sample who had borderline problems, were experimenting with risky behavior, or were at risk for developing more serious problems later in adolescence, as well as those who had already developed serious problems (Achenbach, 1991; Elliott et al., 1987; Moffitt, 1993; Nolen-Hoeksema, Girgus, & Seligman, 1992). In addition, we applied separate cutoff scores for girls and boys so as to take into account the behavior of individuals in the context of their same-gender peers. Substantial evidence has supported the existence of different patterns of behavior and experiences with externalizing and internalizing mental health problems for boys and girls (Nolen-Hoeksema & Girgus, 1994; Tremblay, 1991). Thus, individuals selected for each mental health problem group had total scores on the respective scales that were one standard deviation or greater from the mean for their gender. Students in the NONE category had scores that did not meet the cutoff for externalizing, internalizing, or comor-

bid problems. Mean ratings on the externalizing and internalizing scales for students in each group are reported in Table 1.

Description of Participants. Of the 4,088 participants in the eighth-grade cross-section, 478 (12%) students reported externalizing problems, 461 (11%) students reported internalizing problems, 204 (5%) students reported both externalizing and internalizing problems, and 2,945 (72%) students reported no mental health problems. In some cases, sample size varied because not all participants completed every item in the survey. These variations are noted in the descriptions that follow.

General demographic data and comparisons. General demographic data for the 4,088 participants can be found in Table 2 (gender and ethnicity) and Table 3 (family background descriptives). In addition, we compared the sample of 4,088 eighth graders selected for this study to those students not selected from the larger sample of 10,306 participants surveyed. The cross-section of eighth graders selected for this study included significantly more girls than did the larger sample, $\chi^2(1, N = 10{,}292) = 6.774$, $p < .01$. There was also a significant difference in reported family structure, $\chi^2(2, N = 9{,}189) = 51.57$, $p < .001$; parent work status, $\chi^2(2, N = 8{,}287) = 23.75$, $p < .001$; and parent education, $\chi^2(3, N = 8{,}492) = 26.42$, $p < .001$, for students in the two samples. Differences between the two samples indicate that the eighth-grade cross-section for this study may have been of a slightly higher SES than the larger sample. On the whole, girls and students from families with higher socioeconomic status in this study were likely to have been in attendance at school on days the surveys were administered. Data from these analyses can be obtained from the authors.

Differences among groups. Youth in the mental health groups differed significantly according to gender, ethnicity, parent work status, and academic achievement at eighth grade. There were no differences between the groups in student-reported parent education.

We found a significant gender difference for mental health group, $\chi^2(3, N = 4{,}087) = 20.60$, $p < .001$. Post hoc comparisons revealed that this was due to differences in the reporting of externalizing and comorbid mental health problems. Significantly more boys reported externalizing ($z = 5.09$, $p < .05$) and comorbid ($z = 4.22$, $p < .05$) problems, whereas significantly fewer girls reported these problems ($z = 4.36$, $p < .05$, and $z = 3.82$, $p < .05$, respectively) than expected.

We found significant differences in the ethnicity of students across mental health groups, $\chi^2(15, N = 4{,}088) = 87.2$, $p < .05$. Post hoc comparisons revealed that significantly more Latino youth reported internalizing problems ($z = 20.36$, $p < .05$) and comorbid problems ($z = 5.60$, $p < .05$), with fewer reports of externalizing problems ($z = 5.59$, $p < .05$) than expected. African American students reported significantly fewer internalizing problems ($z = 9.73$, $p < .05$) but more externalizing problems ($z = 3.75$, $p < .05$) than expected. Asian youth reported more internalizing problems ($z = 6.35$, $p < .05$) but fewer externalizing ($z = 6.34$, $p < .05$) and comorbid problems ($z = 4.14$, $p < .05$) than expected.

TABLE 1. Mental Health Descriptives by Mental Health Group

Group	Externalizing scale	Internalizing scale
NONE[a]		
M	3.03	4.26
SD	(2.07)	(.48)
EXT[b]		
M	8.70	4.03
SD	(1.35)	(.47)
INT[c]		
M	3.86	2.83
SD	(2.00)	(.39)
COMORBID[d]		
M	9.10	2.81
SD	(1.38)	(.49)

Note. EXT = Externalizing; INT = Internalizing. Externalizing and internalizing problems assessed with *Adolescent Attitude Questionnaire* (Anson et al., 1991). Externalizing scale range: *low* = 0, *high* = 11, with higher scores indicating more frequent acting out behavior. Internalizing scale range: *low* = 0, *high* = 5, with higher scores indicating lack of depression and satisfaction with life.
[a] $n = 2{,}945$. [b] $n = 478$. [c] $n = 461$. [d] $n = 204$.

There was no significant difference in parent education across mental health groups, $\chi^2(9, N = 3{,}624) = 11.34$, $p = .253$; however, there was a significant difference in parent work status, $\chi^2(6, N = 3{,}762) = 56.2$, $p < .05$. Post hoc comparisons revealed that participants with no reported mental health problems indicated significantly more of their parents were working full time ($z = 3.36$, $p < .05$) and significantly fewer were working part time ($z = 3.27$, $p < .05$) or were out of work ($z = 3.84$, $p < .05$). Participants in the internalizing group reported significantly fewer parents were working full time ($z = 7.13$, $p < .05$) and significantly more parents were out of work ($z = 19.55$, $p < .05$) than expected, whereas participants in the externalizing group reported more parents were working part time ($z = 8.63$, $p < .05$). Participants in the comorbid group reported significantly fewer parents were working full time ($z = 2.85$, $p < .05$) and significantly more parents were working part time ($z = 3.86$, $p < .05$) than expected.

There was a significant difference in the family structure reported by students across mental health groups, $\chi^2(6, N = 3{,}841) = 15.07$, $p < .02$. Follow-up analyses indicated that for students reporting comorbid problems, fewer students than expected were living with two biological parents ($z = 4.07$, $p < .05$) and more were living with grandparents, foster parents, or other adults ($z = 4.57$, $p < .05$).

TABLE 2. Demographics by Mental Health Group

Group	Girls (%)	Boys (%)	African American (%)	Latino (%)	Asian (%)	White (%)	Other ethnicity (%)
NONE	54	46	73	20	5	1	1
EXT	46	54	79	17	2	1	1
INT	55	45	58	31	7	3	2
COMORBID	43	57	66	29	1	1	3
TOTAL (*n*)	2,147	1,940	2,911	881	186	47	63

Note. NONE = No problems; EXT = Externalizing; INT = Internalizing. Percentages are rounded to the nearest whole number. One student did not report gender.

TABLE 3. Family Background Descriptives by Mental Health Group

	Family structure				Parent education			Parent work status			
Group	Two parents (%)	One parent (%)	Other family (%)	Total reporting (*n*)	High school or less (%)	Some college (%)	Total reporting (*n*)	Not working (%)	Part time (%)	Full time (%)	Total reporting (*n*)
NONE	45	37	17	2,797	55	45	2,657	20	9	70	2,737
EXT	42	38	20	430	58	42	403	21	15	64	432
INT	44	35	21	433	63	37	399	32	11	57	416
COMORBID	34	40	25	181	58	42	166	22	10	68	177
TOTAL (*n*)	44	35	21	3,841	56	44	3,625	22	10	67	3,762

Note. NONE = No problems; EXT = Externalizing; INT = Internalizing. Percentages based on total number of students reporting data for each family background characteristic.

Academic Achievement

To further describe participants in each of the four mental health groups, we examined student eighth-grade academic achievement scores on the *Iowa Test of Basic Skills* (ITBS; Hoover, Dunbar, & Frisbie, 2001). A series of one-way analyses of covariance (ANCOVAs) were conducted using mental health group (EXT = External, INT = Internal, COMORBID, or NONE) as the independent variable and mean eighth-grade ITBS reading normal curve equivalent and ITBS math normal curve equivalent as dependent variables while controlling for differences in family background (parent work status, family structure). Analyses revealed significant differences across mental health groups for both reading achievement, $F(3, 3362) = 16.18$, $p < .000$, and mathematics achievement, $F(3, 3353) = 15.35$, $p < .000$. Post hoc pairwise comparisons indicated that the EXT, INT, and COMORBID groups had significantly lower reading and mathematics achievement than the group with no reported mental health problems (NONE). In addition, the group reporting comorbid problems (COMORBID) had significantly lower mean reading achievement than the EXT group and significantly lower mean mathematics achievement than both the EXT and INT groups. There were no significant differences between the mean achievement of the EXT group and the INT group for either reading or mathematics. Summary data are reported in Table 4.

Social Context Measures

Family Context. The following scales from the *Adolescent Attitude Questionnaire* and the *School Climate Questionnaire* served as measures of family context: Academic Support at Home, Parent Attention to Misbehavior, Positive Parent–Child Relations, and Parent Encouragement of Academic Behaviors. The Academic Support at Home construct measured the degree to which students felt their parents or other family members supported, encouraged, and reinforced school success, as well as the frequency with which their parents responded to any school misbehavior. The Parent Attention to Misbehavior construct measured the frequency with which parents used various forms of discipline (e.g., yelling, asking for explanations, taking away privileges) when students

broke important rules. Positive Parent–Child Relations measured the quality of the parent–child relationship by asking students to rate the degree to which they felt their parents trusted them, respected their ability to make decisions, and included them in discussions of important family matters. Finally, the Parent Encouragement of Academic Behaviors construct measured the degree to which parents or other family members checked homework, reviewed tests, encouraged reading, or provided other types of regular academic support.

These family context measures were selected because they assessed the balance of warmth, communication, and control in effective parenting (Baumrind, 1968; Patterson et al., 1992) and were strongly linked to recent findings regarding the development of externalizing, internalizing, and comorbid mental health problems among urban adolescent youth (Florsheim et al., 1998; Gorman-Smith et al., 1999; Loeber et al., 2000). The alpha values for the family context measures were .88 for Academic Support at Home, .80 for Parent Attention to Misbehavior, .82 for Positive Parent–Child Relations, and .74 for Parent Encouragement of Academic Behaviors. Family context measures were all significantly correlated at the .01 level, with low-to-moderate Pearson product-moment correlations, ranging from .11 to .59.

Peer Context. The following scales from the *Adolescent Attitude Questionnaire* served as measures of peer context: Positive Peer Influences and Lack of Negative Peer Influences. The Positive Peer Influences construct measured the extent to which students felt their friends valued academic success (i.e., going to college, doing homework regularly) and involvement in school and community activities and helping others. The Lack of Negative Peer Influences construct measured the extent to which friends were involved in risky behaviors, including delinquency, drug use, and sexual activity. These peer context measures were selected because they measured different aspects of friendship. The first looked at connections to positive friends that might buffer the influence of negative peers (Vitaro, Brendgen, & Tremblay, 2000), whereas the second measured associations with negative peers, which have strong theoretical connections to externalizing and comorbid mental health problems (Elliott, Ageton, & Huizinga, 1985; Patterson et al., 1992; Simons et al., 1994). The alpha values for the peer context measures were .79 for Positive Peer Influences and .84 for Lack of Negative Peer Influences. Peer context measures were significantly correlated at the .05 level, with a Pearson product-moment correlation of .04.

School Context. The following scales from the *School Climate Questionnaire* served as measures of school context: Academic Support From Teachers, Social Support From School Staff, and Lack of Anonymity in School. Academic Support From Teachers measured the extent to which students felt their teachers expected, encouraged, and supported their academic achievement. The Social Support From School Staff construct measured the degree to which students felt cared for and respected by teachers and other adults at school. Lack of Anonymity in School measured the extent to which students felt well liked and well known by teachers and other students in school. These school context measures were selected because of the theoretical connections between such bonding at school and the development or amelioration of externalizing, internalizing, and comorbid mental health problems (Hawkins et al., 1992; O'Donnell et al., 1995). The alpha values for the school context measures were .87 for Academic Support From Teachers, .88 for Social Support From School Staff, and .81 for Lack of Anonymity in School. School context measures were all significantly correlated at the .01 level, with low-to-moderate Pearson product-moment correlations, ranging from .10 to .58.

Results

To test for differences in student perceptions of social contexts across mental health groups, we conducted a series of two-way multivariate analyses of covariance (MANCOVAs), using gender and mental health group (NONE, EXT, INT, COMORBID) as the independent variables and social context

TABLE 4. Achievement Means by Mental Health Group

	Group			
Achievement measure	**NONE**	**EXT**	**INT**	**COMORBID**
Reading NCE				
M	38.74	35.50	34.48	31.03
SD	(15.55)	(15.20)	(16.68)	(17.28)
Mathematics NCE				
M	37.48	34.74	33.79	29.26
SD	(15.69)	(14.25)	(15.69)	(14.57)

Note. NONE = No problems; EXT = Externalizing; INT = Internalizing. Mean reading and math scores from *Iowa Test of Basic Skills* (Hoover et al., 2001); NCE = normal curve equivalent.

measures as the dependent variables. In each of these analyses, we controlled for parent work status and family composition because of differences among groups on these demographic variables. We chose an overall conservative alpha of .01 because of multiple tests conducted within social contexts.

Student Perceptions of Family Context

Academic Support at Home, Parent Attention to Misbehavior, Positive Parent–Child Relations, and Parent Encouragement of Academic Behavior served as the dependent measures for family context. Means for each group on the family context measures are presented in Table 5. We found no significant interaction, $F(12, 7942) = 1.97$, $p = .023$, between mental health group and gender. A significant main effect for mental health group was found, $F(12, 7942) = 24.4$, $p < .000$, with no significant main effect for gender, $F(4, 3002) = 1.41$, $p = .228$.

Univariate F tests were conducted to determine the source of these effects at the level of the family construct. Significant main effects for mental health group were found for all four family context measures. The specific nature of these effects on each of the constructs is described here (see Note).

Students in the EXT, INT, and COMORBID groups had significantly lower mean scores for Academic Support at Home than did students in the NONE group. Students in the COMORBID group reported significantly lower scores for Parent Attention to Misbehavior than students in the NONE group. Students in the NONE group reported significantly higher scores for Positive Parent–Child Relations than students in any of the other groups, and students in the EXT group had

TABLE 5. Social Context Measure Means by Mental Health Group and Gender

	Group							
	NONE		EXT		INT		COMORBID	
Social context measure	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**	**Boys**	**Girls**	**Boys**
Family context								
Academic Support at Home								
M	4.04	3.99	3.58	3.59	3.48	3.53	3.30	3.60
SD	(.74)	(.72)	(.81)	(.76)	(.83)	(.77)	(.93)	(.88)
Parental Attention to Misbehavior								
M	3.49	3.49	3.40	3.32	3.43	3.38	3.29	3.21
SD	(.82)	(.82)	(.92)	(.94)	(.81)	(.97)	(.92)	(.87)
Positive Parent–Child Relations								
M	4.03	4.06	3.67	3.74	3.35	3.53	3.52	3.43
SD	(.77)	(.83)	(.87)	(.84)	(.90)	(.86)	(.99)	(.94)
Parental Encouragement of Academic Behaviors								
M	2.93	2.92	2.61	2.61	2.44	2.66	2.56	2.57
SD	(.90)	(.84)	(.90)	(.90)	(.92)	(.80)	(1.02)	(.90)
Peer context								
Lack of Negative Peer Influences								
M	4.06	3.91	3.21	3.12	3.90	3.63	3.22	3.02
SD	(.67)	(.74)	(.70)	(.82)	(.69)	(.84)	(.87)	(.91)
Positive Peer Influences								
M	3.02	2.77	2.73	2.61	2.64	2.44	2.61	2.58
SD	(1.00)	(1.01)	(1.02)	(1.03)	(1.04)	(.97)	(1.07)	(1.14)
School Context								
Lack of Anonymity in School								
M	4.00	3.85	3.79	3.58	3.59	3.33	3.49	3.19
SD	(.75)	(.84)	(.74)	(.85)	(.69)	(.77)	(.72)	(.80)
Social Support From School Staff								
M	3.66	3.58	3.22	3.29	3.39	3.28	3.08	3.22
SD	(.75)	(.72)	(.68)	(.67)	(.66)	(.67)	(.77)	(.71)
Academic Support From Teachers								
M	3.89	3.82	3.59	3.60	3.68	3.60	3.47	3.51
SD	(.69)	(.69)	(.75)	(.67)	(.69)	(.75)	(.74)	(.68)

Note. NONE = No problems; EXT = Externalizing; INT = Internalizing. Social context measures drawn from the *Adolescent Attitude Questionnaire* and *School Climate Questionnaire* (Anson et al., 1991). Scores range from a minimum of 1 to a maximum of 5.

significantly higher scores for Positive Parent–Child Relations than did students in the INT group. Students in the NONE group reported significantly higher scores for Parent Encouragement of Academic Behavior than students in any of other groups.

Student Perceptions of Peer Context

Positive Peer Influences and Lack of Negative Peer Influences served as the dependent measures of peer context. There was no significant mental health group by gender interaction, $F(6, 6854) = .97$, $p = .443$. We did find significant main effects for both mental health group, $F(6, 6854) = 101.62$, $p < .001$, and gender, $F(2, 3427) = 13.53$, $p < .001$. Univariate F tests were conducted to determine the source of these effects at the level of the peer construct. Significant main effects were found for both of the dependent measures. The specific nature of these effects is described next, and means on the peer context measures for each group are presented in Table 5.

The Lack of Negative Peer Influences scale was coded so that higher scores indicated more positive peer influences. Students in the NONE group had significantly higher scores for Lack of Negative Peer Influences than did students in the other three groups, and students in the INT group had significantly higher scores than did students in either the EXT or COMORBID groups. As expected, there was a significant gender effect on Lack of Negative Peer Influences, with boys reporting more friends involved in negative behaviors.

The Positive Peer Influences scale was coded so that higher scores indicated more positive peer influences. Overall, students reported lower scores for Positive Peer Influences than they did for Lack of Negative Peer Influences. We found a significant main effect for gender on this scale, with girls reporting significantly more positive peer influences than boys. Students in the EXT, INT, and COMORBID groups reported significantly lower scores on this scale than did students in the NONE group.

Student Perceptions of School Context

Lack of Anonymity in School, Social Support From School Staff, and Academic Support From Teachers served as the dependent measures of school context. Means for each group on the school context measures are presented in Table 5. We found no significant mental health group by gender interaction, $F(9, 7676) = 1.01$, $p = .433$. Significant main effects for both mental health group, $F(9, 7676) = 30.45$, $p < .000$, and gender, $F(3, 3154) = 8.58$, $p < .000$, were found. Univariate F tests were conducted to determine the source of the main effects at the level of the school construct. Significant mental health group effects were found for all three dependent measures. In addition, a significant effect for gender was found for Lack of Anonymity in School.

Responses to the measures of Lack of Anonymity in School were coded so that higher scores corresponded to feelings of less anonymity; that is, students with higher scores reported feeling more well liked and better known at school. We found a significant gender effect for Lack of Anonymity in School, due to boys reporting higher levels of anonymity (and corresponding lower scores) than girls. Students in the NONE group had significantly higher scores on this measure than did students in the other three groups, and students in the EXT group had significantly higher scores on this measure than did students in the INT and COMORBID groups.

Students in the NONE group had significantly higher scores on Social Support From School Staff and Academic Support From Teachers than did students in the other three groups. There were no significant differences among the remaining EXT, INT, and COMORBID groups.

Special Education Status

In order to determine the extent to which students with mental health problems were receiving support in school, we explored the history of special education placement of students with self-reported mental health problems. Earlier studies had reported that few students with mental health problems receive appropriate services in schools, even in classes for students with EBD (Adelman & Taylor, 1999; Kauffman, 2001). Students with learning disabilities can experience significant comorbid mental health problems of which teachers may be unaware (Forness et al., 1999). We therefore looked across the three mental health problem groups to see (a) what proportion of participants had contact with the special education system and (b) if so, under which category of disability.

Students' primary special education status was obtained from the Chicago Public Schools. Six percent of students in the eighth-grade sample were eligible for special education services for learning, behavioral, or physical disabilities. An examination of special education status revealed the following proportions of students being served by special education: 5.0% of students in the NONE group, 6.0% of students in the EXT group, 9.1% of students in the INT group, and 3.2% of students in the COMORBID group.

Comparisons of the special education status of students across the three mental health problem groups revealed significant differences in the proportions of students in each group identified for special education, $\chi^2(3, N = 3{,}137) = 32.13$, $p < .000$. In particular, there were significantly more students in the INT ($z = 6.75$) and COMORBID ($z = 17.19$) groups in special education than expected.

We were particularly interested under which special education categories students who reported mental health problems (EXT, INT, COMORBID) were being served. Close inspection of these categories revealed that nearly all students in the three groups (102, or 88.2%) who had contact with special education in eighth grade had a primary label of either a learning disability or EBD. Because of their reported emotional and behavioral difficulties, we expected significant proportions of students in the three groups would have a primary

label of EBD in eighth grade; instead, we found that 85.2% of these students had a primary label of learning disabilities. Because of these somewhat surprising results, we examined these students' special education histories to see whether any youth in the three groups had previously received services with a primary EBD label. Using the Chicago Public Schools data, we traced the students' special education histories as far back as second grade and found that only 10 students (9.8%) in the three groups previously had had a primary label of EBD.

With the majority of students having been identified as learning disabled, then, we found the following proportions of students in the various groups had a history (dating back to second grade) of being served under the learning disability category: 7.9% of students in the EXT group, 8.6% of students in the INT group, and 13.7% of students in the COMORBID group. Furthermore, 208 (41.8%) of the students being served for learning disabilities in eighth grade reported having mental health problems that were substantial enough to place them in one of our three groups. We did not obtain data about proportions of students with learning disabilities who had a secondary label of EBD; however, it is the primary label that dictates which special education teacher has primary responsibility for the students.

Of additional concern, a substantial number of students (1,043; 26% of the sample of eighth graders) were not receiving special education services at eighth grade but reported mental health problems that were substantial enough to place them in one of our three problem groups. Forty-three percent of these students reported externalizing problems, 40% reported internalizing problems, and 17% reported comorbid problems.

Discussion

The present study was significant for its focus on the self-reported mental health problems and social contexts experienced by a large number of urban adolescents. Furthermore, our examination of the special education placements of these youth provides important evidence about the extent to which they were not receiving school-based support for their problems. We discovered significant differences among the mental health groups in each of the three social contexts we examined (family, peer, and school). In general, students without mental health problems reported more positive social relations across contexts, as expected. In addition, some interesting differences among students with different types of mental health problems emerged. With regard to family context, we found that students with comorbid problems reported significantly lower scores for parent attention to misbehavior than students without mental health problems and that externalizers reported significantly higher scores for positive parent–child relations than internalizers. With regard to peer context, we found that externalizers and members of the comorbid group reported significantly greater numbers of friends involved in risky behavior than other groups. With regard to school context, students with internalizing and comorbid mental health problems felt more anonymous and less well liked by peers and teachers than did externalizers.

Researchers have known for some time that quality of social contexts (e.g., family, peer, and school) is associated with the mental health problems of youth (Loeber et al., 1998; Patterson & Dishion, 1985; Patterson et al., 1992). Our study provides new information about those associations for urban youth, revealing that perceptions of social contexts vary, depending on the nature of students' self-reported mental health problems. Perhaps the most important contribution of our study concerns those contexts described by internalizers and youth with comorbid problems. Internalizers reported significantly less positive parent–child relations than externalizers. Youth with comorbid problems reported the lowest levels of parent attention to misbehavior. Internalizers and youth with comorbid problems reported feeling equally anonymous in school and significantly more anonymous than externalizers and youth with no reported mental health problems.

Although teachers and clinicians may be more likely to consider internalizing problems as part of typical adolescent development or may be less concerned with students who are withdrawn than with those who are disruptive in class, our findings caution against such a response. If internalizers are not communicating with parents and feel anonymous in school, their problems are at risk for being ignored, and they thereby have the potential to become worse over time (Cichetti & Toth, 1998; Nolen-Hoeksema et al., 1992). Perhaps internalizing problems are more likely to be ignored when they appear among youth in high-risk urban settings, because so much attention is given to violence and aggression in the urban neighborhood and its concomitant problems (Kauffman, 2001).

Members of the comorbid group were arguably the most troubled group in the study sample, having been selected on the basis of self-reported scores significantly different from the mean for both internalizing and externalizing measures and having the lowest achievement scores of all four groups. Youth with comorbid problems did not differ from members of the externalizing or internalizing groups on five of nine context measures (two family: Parent Encouragement of Academic Behavior and Academic Support at Home; one peer: Positive Peer Influences; and two school: Social Support From School Staff and Academic Support From Teachers). They had similarly low scores as internalizers on one measure (Lack of Anonymity in School) and similarly low scores as externalizers on one measure (Lack of Negative Peer Influences).

Special Education and Students with Mental Health Problems

Students with internalizing and comorbid problems were most likely to be placed in special education classes, with the majority of those students receiving services for learning disabilities. Most disturbing was that a quarter of the population

of eighth graders surveyed was not receiving special education services but had reported mental health problems that were substantial enough to place them in one of our mental health problem groups. Previous research had revealed that youth with complex mental health problems (both externalizing and internalizing) who had been targeted by teams of child psychiatrists were not identified as eligible for special education services unless they also had learning disabilities (Duncan et al., 1995; Forness, 1988; Forness, Kavale, & Lopez, 1993).

Our findings from a large population of urban youth are consistent with those of Forness and colleagues but go a step further in describing the social perceptions of youth from a large, community-based school population. In addition, our findings raise a number of important questions for professionals in special education. First, do programs for youth with learning disabilities become the "catchall" placement for youth with a variety of mental health problems, perhaps because being labeled with EBD is so aversive or because fewer EBD services are available? Second, if significant numbers of youth placed in classes for students with learning disabilities do have complex mental health problems, are teachers adequately prepared to help these students or even able to recognize problems such as depression and refer students for the appropriate related services?

Limitations

A potential limitation of the present study was that we relied on nonclinical measures to assess mental health (i.e., externalizing and internalizing problems). The measures we selected were drawn from established and valid sources, however, and were intended to select youth who were at risk for poor outcomes, as well as those youth who were already experiencing poor outcomes. This practice has empirical grounding, with studies revealing quantitative rather than qualitative differences among youth who report engaging in or experiencing moderate-to-severe externalizing and internalizing problems (see Moffitt, 1993, for consideration of this issue in externalizing problems; see Lewinsohn, Solomon, Seeley, & Zeiss, 2000, for consideration of this issue in internalizing problems).

A related potential limitation has to do with the effect of including in the various mental health groups youth who were at risk for, as well as experiencing, serious mental health problems, perhaps making the groups more heterogeneous so that differences among them would be statistically nonsignificant. Because the data in the present study were drawn from a large community sample and resulted in distributions of youth in the various groups (12% EXT, 11% INT, 5% COMORBID) that one would expect in a community population (see Kauffman, 2001, for estimates of externalizing problems in the population; Nolen-Hoeksema & Girgus, 1994, for estimates of internalizing problems; and Loeber & Keenan, 1994, for estimates of comorbid problems), we feel confident about having selected students with a range of reported mental health problems.

Another limitation of the present study was that we relied exclusively on adolescents' self-reports of mental health problems rather than obtaining the multiple perspectives of parents, teachers, and peers about these problems. For example, our finding that members of the COMORBID group, whom we expected to report the poorest scores across all social contexts, did not differ significantly from members of the other two problem groups on some measures would likely have been clarified if we had obtained data from other sources (e.g., parents, teachers, and peers). Both the externalizing and internalizing measures we used in the present study were valid measures of the mental health problems of youth, however.

With regard to the externalizing measure we used, researchers have specifically addressed the problem of criterion validity of youth self-report. Elliott and colleagues designed the *National Youth Survey* to improve methodological limitations of previous self-report externalizing (delinquency) data and achieve results comparable to arrest data (the criterion). To do so, they included (as we did) items representative of diverse kinds of delinquency, used a wide-response format to collect data in person rather than through mail-in surveys, and specified a substantial period of time in which delinquent acts may have occurred (Elliott & Ageton, 1980). As a result, self-report data from this externalizing measure are more consistent with official arrest data than are data from many other self-report studies of externalizing behaviors, in particular, delinquent acts.

In the case of internalizing problems, self-reports are frequently used in combination with clinical interviews to obtain a diagnosis of depression, anxiety, and other internalizing disorders (Lewinsohn et al., 1994). In the present study we did not seek a clinical diagnosis; rather, we were interested in an overall impression of adolescents' feelings concerning their present happiness, feelings of depression, prosocial behaviors, or acting-out behavior. Thus, the use of self-report was appropriate for the present study. Nevertheless, in future research, obtaining reports of adolescents' behavior from additional sources can only help to better illuminate their strengths, difficulties, and means of adjustment.

A final limitation of the present study is that we used the same self-report survey to select individuals for the various mental health groups as to obtain measures of contexts, suggesting that the significant findings we obtained might be an artifact of the similarity of the measurement instrument and the timing of the data collection. If this had been the case, however, we would have obtained similar significant context effects across mental health groups. Such was not the case with our data; in fact, the pattern of differences varied substantially.

Summary and Recommendations

Our findings should heighten special educators' concern for and attention to urban adolescents and their particular mental health needs. These findings also point, however, to the

strengths of urban adolescents and the opportunities for intervention with these youth that capitalize on those strengths. For example, youth reporting externalizing problems in the present study reported relatively positive relationships with their parents, especially when compared to the reports of youth with internalizing and comorbid problems. Such findings, which are in line with those obtained by Spencer et al. (1993) from their work with urban youth, suggest a productive angle for mental health clinicians and teachers who work with families. Likewise, the relative lack of anonymity in school reported by youth with externalizing problems may also be seen as positive, in that these youth were not likely to be neglected at school, particularly compared with their peers who reported internalizing problems.

Early adolescence is an excellent time to intervene with internalizing problems because this point in a person's development is often when these problems begin for the majority of adolescents and adults who struggle with them (Cichetti & Toth, 1998; Earls, Cairns, & Mercy, 1993). Our findings indicate another potential direction for intervention, in that youth with internalizing problems reported higher scores than youth with externalizing problems and youth with comorbid problems for lack of negative peer influences, meaning they had fewer friends engaging in negative or risky behaviors. As a group, youth reporting internalizing problems were less likely to engage in risky behavior than were their peers reporting externalizing problems or comorbid problems. The question for future work is the extent to which youth reporting internalizing problems experience positive friendships that can buffer the effects of those problems.

In our study, students reporting internalizing problems and students reporting comorbid problems were most likely to receive services for learning disabilities; however, the latter probably presented a complex picture for learning disabilities specialists. Programs preparing teachers to teach students with learning disabilities need to better educate those teachers about the characteristics and treatment of students with complex mental health problems.

Finally, we found significant numbers of students who had no contact with special education in their school careers but reported experiencing mental health problems. To what extent is this finding unique to an urban setting? To what extent does this reflect temporary adjustment problems, and to what extent are the problems of these youth ongoing? Future longitudinal work needs to address these questions, to help discriminate between students who experience temporary adjustment problems and those who experience more serious clinical problems. Our study, which describes social contexts experienced by urban youth with a variety of self-reported mental health problems, is an important first step in that process. Early adolescence is a developmental period in which it is possible to prevent mental health problems, to ameliorate their severity, to prevent new problems from occurring, or to prevent comorbid problems from developing. Prevention of mental health problems in adolescence must take into account the social contexts of students' lives, including family, peers, and school (Earls et al., 1993). In addition, our findings indicate that school-based professionals in special education have a particularly important role to play in the prevention of such problems.

NOTE

Additional data related to follow-up analyses may be obtained from the authors.

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Appendix: Sample Items and Internal Consistency Values

Social context measure	Sample item	α
Family context		
Academic Support at Home	• If I don't do well, my parents help me understand why. • My parents help me with homework when I ask them to.	.88
Parental Attention to Misbehavior	• When you break one of your parents' important rules, how often do they . . . yell, ask for explanations, take away privileges, etc?	.82
Positive Parent–Child Relations	• My parents respect my ability to make decisions. • My parents discuss important family matters with me.	.74
Parental Encouragement of Academic Behaviors	• My parents encourage me to try hard to do well on tests. • My parents praise me for good grades.	.80
Peer context		
Lack of Negative Peer Influences	• How many of your friends have asked you to do something against the law? • How do your friends feel about drinking alcohol?	.84
Positive Peer Influences	• How many of your friends do their homework regularly?	.79
School context		
Lack of Anonymity in School	• I often feel left out. • Teachers don't know me very well.	.81
Social Support From School Staff	• Teachers care about you as a person. • Teachers are willing to help with problems.	.88
Academic Support From Teachers	• Teachers believe students can learn. • Teachers spend extra time to help students do their best.	.87

Note. Scales were taken from the *Adolescent Attitude Questionnaire* and *School Climate Questionnaire* (Anson et al., 1991).