

Predictors of Future Expectations of Inner-City Children: A 9-Month Prospective Study

Eric F. Dubow

Mitzi Arnett

Katherine Smith

Maria F. Ippolito

Bowling Green State University

Assessed in the present study were the contributions of variables thought to be related to positive expectations for the future in a sample of inner-city sixth-grade through eighth-grade students. Students completed self-report measures in September and June. At each time point, higher levels of positive expectations for the future were related to lower levels of problem behaviors and peer negative influences and to higher levels of school involvement, internal resources, and social support. In prospective analyses, higher levels of Time 1 problem behaviors and peer negative influences predicted decreases over 9 months in positive expectations for the future; higher levels of family support and problem-solving efficacy predicted increases over 9 months in positive expectations for the future. These findings have implications for further prospective research as well as for designing resilience-promoting prevention programs for at-risk youth.

Personal characteristics, family support, and extrafamilial support have been identified as promoting adaptive responses in children exposed to chronic stress (Haggerty, Sherrod, Garmezy, & Rutter, 1994; Mrazek & Haggerty, 1994; Werner & Smith, 1992). An example of chronic stress exposure is residence in an impoverished inner-city community where children are more likely to be exposed to maltreatment, substandard housing, and violence (Attar, Guerra, & Tolan, 1994; Garbarino, 1992). In initial research, Wyman and colleagues (Cowen et al., 1997; Wyman, Cowen, Work, & Kerley, 1993) found that positive expectations for the future were a protective factor for urban children under stress. Those findings are important for designing programs to

Journal of Early Adolescence, Vol. 21 No. 1, February 2001 5-28
© 2001 Sage Publications, Inc.

promote positive adjustment in at-risk children. Before such programs can be designed, however, prospective research is needed to identify variables that predict changes in positive expectations (Wyman et al., 1993). The present study assessed positive expectations for the future in at-risk inner-city sixth-grade through eighth-grade students. The study focused on three questions: (a) To what degree would students hold positive expectations for the future? (b) Which variables would be related to positive expectations? and (c) Which variables would predict changes over time in positive expectations for the future?

Positive Expectations for the Future: Conceptualization and Measurement

According to Wyman et al. (1993), positive expectations for the future can be conceptualized as “expectations of attaining specific objectives (e.g., achieving in school, having close friends) in later developmental periods” (p. 651). Carver, Reynolds, and Scheier (1994) postulated that positive expectations are important because they “serve as the focal point for one’s energies in striving for the future” (p. 139). To foster future success, individuals might use planful problem-solving skills, engage their social support networks, and become involved in competence-building activities. Although there have been only a few studies of positive expectations in youth, there has been much research on a related construct, *dispositional optimism*, in adults.

Dispositional optimism refers to global expectancies of personal positive outcomes in the future. Scheier and Carver (1985) developed the Life Orientation Test (LOT) to assess dispositional optimism in adults. Participants indicate their agreement with self-descriptive statements such as, “I’m always optimistic about my future,” and “In uncertain times, I usually expect the best.” Global expectations of success have predicted effective coping with school transitions (Aspinwall & Taylor, 1992; Koizumi, 1995). In addition, in a series of studies, Carver and colleagues (Scheier & Carver, 1992; Strack, Carver, & Blaney, 1987) found that negative global expectancies predicted likelihood of experiencing postpartum depression, and positive global expectancies predicted adjustment to coronary surgery and completion of an after-care program by alcoholics.

Carver et al. (1994) demonstrated a connection between positive expectations and dispositional optimism. In their study, undergraduate participants answered three identical series of questions to characterize the person they expected to be, hoped to be, and feared becoming in the next year or two. The

authors found a relation between dispositional optimism and positive personal expectations but not between optimism and hoped for or feared selves. Optimism and expectations were related, possibly because both reflect the individual's personal expectancies. Whereas optimists and pessimists equally were hopeful about the future, optimists were more able to translate their hopes into expectations. It is important also to note the distinction between "abstract" and personal expectancies. Mickelson (1990) found that adolescents from low-income and from African American families simultaneously held the abstract expectancy that education is a valued accomplishment and the personal expectation that academic achievement was unlikely to yield them economic advancement. Those results raise the issue that opportunities to achieve positive outcomes, and thus positive expectations for the future, are diminished substantially in some contexts. This highlights the importance of studying positive expectations in low-income, ethnically diverse youth.

Fischer and Leitenberg (1986) adapted an adult optimism measure for fourth-grade through sixth-grade students. That measure includes optimistic items (e.g., "In the future, I expect that I will . . . handle myself well in whatever situation I'm in" and "be noticed by others for doing a good job") and pessimistic items (e.g., "find that my plans don't work out too well"). Optimism was correlated moderately with self-esteem but was not related to peer-rated popularity, leading the authors to suggest that optimism predicts global success but not success in any specific domain (e.g., social success). Wyman et al. (1993) developed a measure of positive future expectations for children. Their measure includes items such as "How sure are you that you can handle your school work when you get older?" and "Do you think you'll always have friends and people that care about you?" Positive expectations were related directly to reading achievement and teacher-rated competencies and were related inversely to anxiety/depression and teacher-rated behavior problems.

Across studies, children and adults exhibit an optimistic bias. In college samples, Scheier and Carver (1985) and Weinglert and Rosen (1995) reported LOT means of 19 through 22 (scale range, 0 through 32). Fischer and Leitenberg (1986) reported a mean of 13.88 ($SD = 2.60$; scale range, 0 through 16) in a sample of 583 fourth-grade through sixth-grade primarily Caucasian children. Wyman et al. (1993) reported means of 24.32 ($SD = 3.53$) and 21.94 ($SD = 4.02$) on a scale with a range of 7 through 35, for resilient (high stress, high competence) and stress-affected (high stress, low competence) predominantly minority urban fourth-grade through sixth-grade students.

Correlates of Positive Expectations of Children and Adolescents

Wyman, Cowen, Work, and Parker (1991; Wyman et al., 1992) divided urban fourth-grade students into resilient and stress-affected groups. A positive expectation for the future was the most sensitive child-interview measure to discriminate resilient from stress-affected youth. Wyman et al. (1993) also conducted a study of adjustment in urban 9- through 11-year-olds (60% from minority groups) who experienced at least four stressors. Children with higher levels of positive expectations scored higher on measures of self-competence and internal locus of control and lower on a measure of anxiety/depression. Also, teachers rated children with higher levels of positive expectations as having higher levels of socioemotional adjustment; those children also attained higher reading achievement scores. Nearly one-half of the children were reassessed 3 years later. Wyman et al. (1993) found that, after controlling for Time 1 socioemotional adjustment, Time 1 future expectations predicted Time 2 socioemotional adjustment and child-reported locus of control. Time 1 future expectations also moderated the relation between stressors and perceived competence; high-stress participants with low expectations decreased in competence, whereas high-stress participants with high expectations increased in competence. However, Wyman et al. (1993) did not examine changes or predictors of change in future expectations.

Hypothesized Predictors of Changes in Positive Expectations for the Future

Although Wyman et al. (1993) have begun to delineate the role of children's future expectations in promoting adjustment, they noted a need for prospective studies to identify variables that predict changes in future expectations. In the present study, four classes of variables were hypothesized to predict changes in future expectations: (a) internal resources, (b) supportive family and peer relations, (c) avoidance of exposure to peer negative influences, and (d) current adjustment.

Internal resources. Problem-solving efficacy and self-esteem have been implicated as predictors of positive expectations for the future. Self-perception of problem-solving efficacy might be a precursor of future expectations (Checkoway & Zimmerman, 1992). Stipek and Hoffman (1980) assigned children 3 through 8 years of age to a success or failure condition by manipulating a laboratory task outcome. Children as young as 3 years of age formulated realistic performance expectations on this task based on success or fail-

ure 1 week earlier. Thus, positive expectations might be a product of individuals' perceptions of their problem-solving efficacy (Skinner & Edge, 1998). Self-esteem and perceptions of self-competence in specific domains (e.g., academic, social) also have been associated with positive expectations for the future in studies of children (Wyman et al., 1993). Similarly, in studies of college students, researchers have found a significant correlation between self-esteem and optimism (Aspinwall & Taylor, 1992; Davis, Hanson, Edson, & Ziegler, 1992; Lyons & Chamberlain, 1994). However, none of those studies was prospective.

Supportive family and peer relations. Problem-solving efficacy and self-esteem arise, in part, from supportive social interactions. According to attachment theory (Bowlby, 1982), infants who experience supportive attachments develop internal models of themselves as capable and worthy of love and support and commensurate expectations for the self. Ongoing social experiences lead to revisions in representations of self and others and expectations as to outcomes. Walker, Taylor, McElroy, Phillip, and Wilson (1995) found that the support of family members, as well as extrafamilial support, contributed to the self-esteem of African American children. Jackson and Meara (1977) found that paternal communication and engagement with adolescent sons predicted more ambitious professional aspirations and higher levels of educational attainment 5 years later. Thus, in the present study, it was hypothesized that family support would predict increases in positive expectations for the future.

It also was hypothesized that peer support would be related to changes in positive expectations for the future. In cross-sectional studies, Koizumi (1995) found that peer positive relations in 5th-grade through 9th-grade students were related to generalized expectancies of life success. Israelashvili (1997) also found that 5th-grade through 12th-grade students' school experiences, particularly peer interactions, predicted the students' future expectations.

Peer negative influences. Although peer positive support was hypothesized in the present study to predict increases in positive expectations, peer negative influences were hypothesized to have the opposite effect. Dubow, Edwards, and Ippolito (1997), in a sample of disadvantaged urban children, found a stress-exacerbating effect for peer support; at high levels of peer support, the relation between neighborhood stressors and antisocial behavior was strengthened. Children residing in neighborhoods plagued by chronic poverty are more likely to form friendships with delinquent peers as a function of available peer contacts (Dembo et al., 1985; Pabon, Rodriguez, &

Gurin, 1992). By virtue of those associations, the children have more opportunities to engage in activities that elicit negative evaluations from authority figures, which might contribute to diminished personal positive expectations.

Current behavioral adjustment. In regard to the role of current adjustment in predicting future expectations, Scarr and McCartney (1983) suggested that individuals “make their own environments.” That is, successes and failures, in part, are determined by the individual’s own behavior and interactions within the environment. As indicated previously, Wyman et al. (1993) found that teacher reports of current adjustment were related positively to future expectations. Children who exhibit current behavior problems likely evoke negative evaluations and consequences from authority figures, which might lead them to be less positive about their futures. Alternatively, children who exhibit positive adjustment tend to have positive interactions with others and create opportunities for success experiences. Perhaps behaviors that reflect school involvement (e.g., being in a club or on a sports team, helping a teacher or student after school) provide opportunities to participate successfully, garner admiration, engender perceptions of self-efficacy, and, hence, enhance expectations for future success. Israelashvili (1997) found that students’ perceptions of feeling comfortable in the school environment and “fitting in” were related moderately to positive expectations. In addition, Dubow, Kausch, Blum, Reed, and Bush (1989) found that lower levels of involvement in school activities and perceived lower levels of support from school staff were related to higher levels of suicidal ideation among junior high and high school students. Thus, in the present study, it was hypothesized that current behavioral adjustment—avoiding problem behaviors and engaging in positive school experiences—would predict increases in positive expectations for the future.

In summary, positive expectations potentially are important in promoting the psychosocial adjustment of youth from disadvantaged communities. The current study assessed positive expectations in inner-city sixth-grade through eighth-grade students and focused on three research questions: (a) To what degree would students hold positive expectations for the future? (b) Which variables would be related to positive expectations? and (c) Which variables would predict changes over time in positive expectations for the future? It was hypothesized that the following variables would correlate with and predict increases over time in positive expectations for the future: (a) internal resources (problem-solving efficacy and self-esteem), (b) supportive family and peer relationships, (c) avoidance of exposure to peer negative influences, and (d) current behavioral adjustment.

METHOD

Participants

This study was part of a larger study (Dubow, Smith, & Arnett, 1998) in which was examined the effects of a pregnancy prevention program delivered to sixth-grade through eighth-grade students from five inner-city schools (two elementary and three junior high schools) in a medium-size midwestern city (population approximately 325,000). The county in which the schools are located posted the second highest adolescent pregnancy rate in the state; the specific schools were chosen from neighborhoods with the highest rates in the county. Across the five schools, two thirds or more of the students qualified for Free and Reduced Lunch rates. The pregnancy prevention program was presented to entire classrooms in sixth grade and to groups of students identified as at risk by staff at the junior high schools. Program staff sent letters for consent to parents of 275 students; 192 students (70%) received parental consent to participate in the program (2 students did not assent to participate in the program after receiving parental consent). The program was presented twice a week (45-minute sessions) during the year and covered topics such as self-esteem, decision making, goal setting, and growth and development of love and intimacy. Students who participated in the program showed significant improvement in knowledge of the content of the program and in their ability to discuss sexual issues with others but did not show significant improvement on the variables examined in the present study (Dubow et al., 1998).

Analyses for the present study focused on those students who completed paper-and-pencil questionnaires administered in their classrooms in September (Time 1) and June (Time 2) of the school year. Of the 190 students, 136 students completed the survey in September, and 95 of those students also completed the same survey in June. (Twenty-eight students completed only the June survey, and 26 students did not complete either survey.) Attrition was not related to any of the demographic variables (i.e., school, grade, ethnicity, parental marital or occupational statuses, number of children and adults in the home) or the major study variables. The 95 students were 59% female; 55% sixth, 29% seventh, and 16% eighth graders; and 59% non-Caucasian (27% African American, 13% Hispanic, 19% "other" including biracial students). Thirty-six percent of the students reported that their parents were married. In 53% (Time 1) and 57% (Time 2) of the homes, at least one adult worked full-time.

Procedures

Students completed the surveys in their classrooms during the school day in a 45-minute period. Using a code number system, procedures were devised so that students' names were not included on their surveys. Instructions for each measure were read aloud by one staff member, and another staff member answered questions from specific students.

Measures

Internal resources. The Global Self-Worth subscale of the Harter (1988) Self-Perception Profile for Adolescents was administered. Each item is presented by having the student read two statements (e.g., "Some teenagers like the kind of person they are, BUT, Other teenagers often wish they were someone else") and decide which one is true for him or her. The student indicates whether the statement is *sort of true* or *really true* for him or her, thus forming a 4-point scale. Harter (1988) reported internal consistency reliabilities of .80 through .89 across four samples. In addition, domains of perceived competence that were important to the individual (e.g., academic, social) have been related positively to Global Self-Worth. In the present study, coefficient alphas were .80 (Time 1) and .83 (Time 2).

Students also completed a measure of perceived problem-solving efficacy (Schmidt & Dubow, 1998). This scale taps perceived problem-solving skills. Students respond to six items along a 5-point scale (1 = *never* through 5 = *always*). Sample items include "When I have a problem, I can think of different ways to try to solve it" (generating alternatives) and "When I think of a solution to a problem, I think of the good and bad things that might happen if I tried that solution" (evaluating consequences). Schmidt and Dubow (1998) computed a coefficient alpha of .62 in a group of fifth and sixth graders and found that the scale correlated significantly with teacher reports of the child's problem-solving skills and self-reports of specific coping skills (e.g., positively with seeking support and self-reliance, and negatively with externalizing). Alphas in the present study were .78 (Time 1) and .76 (Time 2).

Supportive family and peer relationships. Students completed the abbreviated version of the family and peer support subscales from the Social Support Appraisals Scale of the Survey of Children's Social Support (Dubow et al., 1997; for the original version, see Dubow & Ullman, 1989). Children respond to three family and three peer support items along a 5-point scale (1 = *never*

through 5 = *always*). Sample items include “Some kids can count on their family for help or advice when they have problems, but other kids cannot. Can you count on your family for help or advice when you have problems?” and “Some kids feel very close to their friends, but other kids don’t. Do you feel very close to your friends?” Dubow et al. (1997) used the abbreviated scale with a sample of fourth-grade through sixth-grade inner-city students and reported coefficient alphas of .75 and .57 for family and peer support, respectively. Both scales correlated significantly with global self-worth and family and peer support both played moderating roles in the relation between stressful life events and antisocial behaviors. Alphas in the present study were .77 (Time 1) and .81 (Time 2) for family support, and .59 (Time 1) and .63 (Time 2) for peer support.

Exposure to peer negative influences. Versions of two scales from the Monitoring the Future Survey (Johnston, O’Malley, & Bachman, 1991) were administered. The peer substance use scale asks students to estimate how many friends use substances (1 = *none* through 5 = *all*). Three substance use items were included (smoke cigarettes, drink beer, get drunk at least once a week) and three items were added to assess perceived peer sexual behavior (e.g., how many peers “have sex,” “pressure others to have sex”). Merk (1993) reported a coefficient alpha of .80 for the original nine-item peer substance use measure, and correlations between .60 and .70 between peer substance use and self-reported substance use. Alphas in the present study were .84 (Time 1) and .80 (Time 2).

The peer pressure scale asks the student how much pressure he or she feels to engage in substance use (1 = *none* through 4 = *a lot*). Two items were included (smoke cigarettes, drink beer or alcohol) and two items were added (get drunk at least once a week, pressure to “have sex”). Merk (1993) reported a coefficient alpha of .70 for the original four-item peer pressure scale, and correlations of .26 between pressure to use and self-reported use. Alphas in the present study were .86 (Time 1) and .85 (Time 2).

Behavioral adjustment. Students responded to items from the Health and Daily Living–Youth Form (Moos, Cronkite, Billings, & Finney, 1986) to assess *problem behavior* and school involvement behavior. To assess problem behavior, students indicated (1 = *yes*, 0 = *no*) whether they had engaged in each of seven behaviors during the past year (e.g., drink liquor, smoke cigarettes, engage in sexual intercourse, get suspended from school, receive a grade of “F”). Items to which students responded “yes” were summed to create a total score. Alphas in the present study were .76 at both time points, and

problem behaviors were related in the expected directions to many of the major study variables.

To assess *school involvement behaviors*, students indicated (1 = *yes*, 0 = *no*) whether they had engaged in each of nine behaviors during the past year (e.g., took part in a school play, tutored other students, helped a teacher after school, went to a meeting of a school club or group). Items to which students responded "yes" were summed to create a total score. Dubow et al. (1989) reported a coefficient alpha of .70 for the measure, and found that junior high and high school students with the most severe levels of suicidal ideation were found to have the lowest levels of school involvement. Alphas in the present study were .65 (Time 1) and .69 (Time 2).

Future expectations. A revised version of the Wyman et al. (1993) future expectations scale was administered. The original scale has seven items, six of which the student rates along a 5-point scale reflecting how sure he or she is of a positive outcome (1 = *not at all* through 5 = *very much*). Each question is worded as "How sure are you that you . . . will always have friends that care about you?" or "will be able to handle your school work when you get older?" The seventh item on the original scale is open-ended; this item was not included in this study. Two items were added for the present study (i.e., "How sure are you that you will be able to make healthy decisions . . . about sex" and "about alcohol and drug use?"). Alphas in the present study were .82 (Time 1) and .85 (Time 2).

Analyses

The first set of analyses examined the degree to which students held positive expectations for the future. Those analyses included (a) the means and standard deviations for positive expectations for the future and additional measures at Time 1 and Time 2; (b) the percentages of students who endorsed low levels or high levels for each of the eight positive expectation items; and (c) demographic differences in Time 1 and Time 2 positive expectations.

The second set of analyses examined the variables related to positive expectations. Those analyses included correlations, within each time point, of the four classes of predictors (i.e., internal resources, supportive family and peer relationships, peer negative influences, behavioral adjustment) with positive expectations.

The third set of analyses (hierarchical regressions) examined the relation of the four classes of predictors to changes over nine months in positive expectations. As a preliminary step, ANOVAs and correlations were used to

identify demographic differences in the predictor and criterion variables that potentially could be included in the regressions. This is the most conservative approach because any variance due to demographic differences in either the predictor or criterion variables will be partialled out. After those preliminary analyses, four hierarchical regression equations (one for each class of predictors) were computed. In Step 1, appropriate demographic variables and Time 1 future expectations were entered to predict Time 2 future expectations. Thus, the variation in Time 2 expectations attributable to Time 1 expectations were partialled out. This is the preferred approach over the use of difference scores (e.g., Time 2 minus Time 1 expectations) to examine predictors of change (e.g., Cohen & Cohen, 1975; Holahan & Moos, 1981; Nunnally & Bernstein, 1994). Step 2 was computed separately for each of the four classes of predictors. Only participants with complete data for all variables in a given set were included in each regression analysis. Finally, because Time 1 levels of future expectations might relate to changes in the predictors, "reverse regressions" (using the same hierarchical approach) were computed to examine that possibility.

RESULTS

To What Degree Would Students Hold Positive Expectations for the Future?

Table 1 shows the means and standard deviations for the measures at Time 1 and Time 2. In terms of positive expectations for the future, the average item score was close to 4 (3.93) on a 5-point scale, slightly higher than the average item score of 3.47 for stress-resistant urban students in the Wyman et al. (1993) study, who had experienced at least four stressful events in the past year. Although average scores were more toward the positive end on future expectations and on all other scales included in the present study, students showed variability across measures, covering the full range of scores on all but one measure, as noted in Table 1.

Because there are few published data on the nature and degree of inner-city students' specific positive expectations for the future, Table 2 provides the percentages of students who endorsed low and high levels of positive expectations for each item. Across the eight items, between 7% and 33% of the sample endorsed relatively low positive expectations, whereas between 41% and 83% endorsed relatively high levels of positive expectations. Thus, consistent with the literature cited previously, the sample also exhibited an optimistic bias.

TABLE 1: Means, Standard Deviations, and Ranges of Major Study Variables at Time 1 and Time 2

<i>Variable</i>	<i>Time 1</i>		<i>Time 2</i>	
	\bar{X}	SD	\bar{X}	SD
Future expectations	30.88	6.68	31.93	6.54
Internal resources				
Self-worth	3.32	0.67	3.40	0.68
Problem solving	21.63	5.13	21.66	5.45
Social support				
Family support	13.50	2.18	13.34	2.43
Peer support	12.04	2.64	12.04	2.47
Peer negative influences				
Peer behaviors ^a	9.71	4.64	10.79	5.00
Peer pressure	5.23	2.38	5.45	2.65
Behaviors				
Problems	1.68	1.66	2.28	2.04
School involvement	3.78	2.26	4.66	2.30

a. The possible range for this scale was 6 through 30; the obtained range was 6 through 28.

TABLE 2: Frequencies of Responses to the Future Expectations Items at Time 1 and Time 2

<i>Item</i>	<i>Percentage Saying "a Little" or "Not at All"</i>		<i>Percentage Saying "Very Much" or "a Lot"</i>	
	<i>Time 1</i>	<i>Time 2</i>	<i>Time 1</i>	<i>Time 2</i>
How sure are you that . . .				
you can handle problems in life?	18	11	57	67
you can handle school when older?	23	9	57	65
you'll always have friends that care?	15	10	73	83
you'll stay out of trouble?	32	33	47	41
you will have a happy life?	16	22	66	63
you will have interesting things to do?	12	7	62	75
you will be able to make healthy decisions about sex?	17	10	74	74
you will be able to make healthy decisions about alcohol and drug use?	19	14	73	74

NOTE: For brevity, the wording of items was paraphrased (see Wyman, Cowen, Work, & Kerley, 1993). Percentages do not add to 100 because the percentages of students responding "somewhat" to each item are not reported.

TABLE 3: Correlations Among the Major Study Variables at Time 1 (below diagonal) and Time 2 (above diagonal)

Variable	1	2	3	4	5	6	7	8	9
Internal resources									
1. Problem solving	—	.34**	.36**	.09	-.23*	-.16	-.41**	.29**	.53**
2. Self-worth	.20	—	.36**	.25*	-.19	-.09	-.12	.11	.38**
Social support									
3. Family support	.57**	.29**	—	.28**	-.33**	-.31**	-.32**	.15	.52**
4. Peer support	.17	.23*	.12	—	.10	.12	-.03	.13	.29**
Peer negative influences									
5. Peer behaviors	-.26*	-.19	-.23*	.09	—	.53**	.66**	.02	-.25*
6. Peer pressure	-.35**	-.12	-.31**	-.04	.63**	—	.55**	.04	-.24*
Behaviors									
7. Problems	-.24*	-.26*	-.27**	-.04	.68**	.57**	—	.00	-.55**
8. School involvement	.24**	.10	.06	.15	.14	.00	.17	—	.11
9. Future expectations	.44**	.43**	.39**	.32**	-.28**	-.25*	-.34**	.25**	—

NOTE: Due to missing data, *ns* range from 81 through 95.* $p < .05$. ** $p < .01$.

ANOVAs were computed in which gender, grade level, ethnicity, and parental marital status were the independent variables and Time 1 and Time 2 positive expectations were the dependent variables. Separate ANOVAs were computed to assess ethnicity differences, dropping the 17 students who indicated their ethnic group status as "other" (e.g., biracial, missing). Interactions among the demographic variables were not assessed because cell sizes were too small to detect reliable differences. There were no significant effects for any of the demographic variables on expectations at Time 1 or Time 2. In addition, correlations were computed between the continuous demographic variables (age, number of adults and children in the home, parental occupational statuses) and positive expectations for the future. None of those correlations was significant.

Which Variables Would Be Related to Positive Expectations for the Future?

Table 3 shows the correlations among the major study variables at Time 1 (below the diagonal) and Time 2 (above the diagonal). Within each time point, the variables were related generally in the expected directions (e.g., higher levels of problem behaviors were related to higher levels of peer negative influences). Of particular interest, higher levels of positive expectations for the future were related to lower levels of problem behaviors and peer neg-

ative influences, and to higher levels of school involvement, internal resources, and social support.

Time 1 and Time 2 positive expectations scores were correlated $r = .42$. This moderate level of stability, in which Time 1 scores accounted for 18% of the variance in Time 2 scores, reflects that some individual students' scores increased and some decreased. This finding further highlights the importance of identifying those variables that predict over time increases and decreases in positive expectations for the future. The other major study variables also were stable moderately over time (r s ranged from .28 through .76).

Which Variables Would Predict Changes in Positive Expectations for the Future?

Preliminary analyses: Demographic differences in the major study variables. Analyses were computed to determine if any demographic variables needed to be controlled in the hierarchical regressions. As noted previously, there were no significant demographic differences in Time 1 or Time 2 positive expectations. ANOVAs and correlations also were computed to examine demographic differences in the balance of the variables (self-worth, problem-solving efficacy, family support, peer support, peer negative influences, problem behaviors, school involvement). Those analyses indicated the need to control for gender and age.¹

Predicting changes in future expectations. Four hierarchical multiple regressions were computed in which Time 2 future expectations were predicted by variables in two steps: Step 1 included gender, age, and Time 1 future expectations and Step 2 included the four separate blocks of Time 1 variable domains (i.e., internal resources of self-worth and problem-solving efficacy, family and peer support, peer negative influences, and behavior problems and school involvement). Based on the correlations of variables within each domain, multicollinearity posed a problem only for the peer negative influences variables: perceived peer behavior and peer pressure were correlated $r = .63$ at Time 1 and $r = .53$ at Time 2. These two scores were combined by standardizing and then summing them.

Table 4 shows that, in Step 1, gender, age, and Time 1 future expectations accounted for 19% of the variance in Time 2 future expectations; of the three predictors, only Time 1 future expectations was significant, reflecting moderate stability over time. In Step 2, which was repeated four times, the following results were obtained: (A) Internal resources at Time 1 contributed a significant increase in variance (12%) in predicting Time 2 expectations. Specifically, students with initially higher levels of perceived problem-

TABLE 4: Hierarchical Multiple Regressions of Time 2 Future Expectations on Background Variables and Time 1 Future Expectations, and Time 1 Behaviors, Internal Resources, Social Support, and Peer Negative Influences

Predictor Variable	ΔR^2	Beta	F (step)
Step 1			
Background variables and Time 1 future expectations	.19		$F(3, 88) = 6.88^{**}$
Gender ^a		.09	
Age		.04	
Time 1 future expectations		.44 ^{**}	
Step 2			
A. Time 1 internal resources	.12		$F(2, 68) = 4.56^{**}$
Self-worth		.09	
Problem-solving efficacy		.31 ^{**}	
B. Time 1 social support	.24		$F(2, 89) = 13.97^{**}$
Family support		.49 ^{**}	
Peer support		-.04	
C. Time 1 peer negative influences	.07	-.27 ^{**}	$F(1, 90) = 7.21^{**}$
D. Time 1 behaviors	.05		$F(2, 89) = 2.54^b$
Problem behaviors		-.20 ^b	
School involvement		.09	

NOTE: Four separate sets of hierarchical regression equations were computed. In Step 1, gender, age, and Time 1 future expectations were the predictors; Step 2 was computed separately for each of the four sets of predictors (A through D). Only those participants with complete data for all variables in a set were included in that analysis. Thus, for the analyses involving social support (B), peer negative influences (C), and behaviors (D), there were 92 participants; the results for Step 1 in this table pertain to those analyses. For the analysis involving internal resources (A), due to missing data, there were 71 participants. The Step 1 results for that analysis were as follows: $R^2 = .17$, $F(3, 67) = 4.65^{**}$, betas of .14 for gender, .05 for age, and .40^{**} for Time 1 future expectations.

a. Gender was coded as follows: 1 = male, 2 = female.

b. Trend toward significance, $p < .10$.

^{**} $p < .01$.

solving efficacy showed increases over time in positive expectations for the future; (B) Social support variables at Time 1 contributed a significant increase in variance (24%) in predicting Time 2 expectations. Students who reported initially higher levels of family support showed increases in positive expectations for the future; (C) Peer negative influences at Time 1 contributed a significant increase in variance (7%) in predicting Time 2 future expectations. Students who reported higher levels of peer negative influences at Time 1 showed decreases over 9 months in positive expectations for the future; and (D) There was a trend toward significance for Time 1 behaviors predicting an increase (5%) in variance in Time 2 expectations. Students who

initially reported higher levels of problem behaviors also reported decreases over time in positive expectations for the future.

Predicting changes in internal resources, social support, peer negative influences, and current behaviors. Findings that initial levels of internal resources, social support, peer negative influences, and current behaviors predict changes over time in future expectations do not rule out a bidirectional relation. That is, it is possible also that initial levels of future expectations predict changes over time in internal resources, social support, peer negative influences, and current behaviors. Thus, reverse regressions were computed to examine whether Time 1 future expectations predicted changes in problem-solving efficacy, self-worth, family and peer support, peer negative influences, and behavior problems and school involvement. The same hierarchical approach was used, with Step 1 including gender, age, and the Time 1 criterion variable (e.g., problem-solving efficacy) and Step 2 including Time 1 future expectations, predicting the Time 2 criterion variable (e.g., Time 2 problem-solving efficacy). Across these analyses, in Step 2, Time 1 expectations predicted change *only* in problem behavior, after controlling for gender, age, and Time 1 problem behavior, $F(1, 90)$ for Step 2 = 6.07, $p < .05$, $\Delta R^2 = .06$, $\beta = -.25$.

DISCUSSION

It is well-known that many youth exposed to chronic stress nevertheless exhibit competence because of the presence of particular “protective” factors such as favorable personal characteristics and familial and extrafamilial support; those youth have been referred to as resilient (Haggerty et al., 1994). Wyman et al. (1993) raised the possibility that positive expectations for the future might promote resilience in urban youth under stress. Research is needed now to examine factors that sustain positive expectations for the future. The present study of early adolescents from disadvantaged inner-city neighborhoods explored the degree to which the students held positive expectations for the future, variables related to their expectations, and predictors of change over 9 months in their expectations.

To What Degree Did the Students Hold Positive Expectations for the Future?

Consistent with previous studies with children (Fischer & Leitenberg, 1986; Wyman et al., 1993), the majority of students in the present study were

confident in their abilities to meet future academic (e.g., handle school work when older), interpersonal (e.g., have friends and people that care about you), and behavioral challenges (e.g., make healthy decisions about sexual behavior and substance use), and those expectations were stable moderately over 9 months. Those are important findings given the context in which these children are growing up; further research on the developmental course of positive expectations needs to be sensitive to contextual influences. Presently, it is unclear whether these students' positive outlooks will be sustained across longer periods (e.g., postschool transitions). For example, despite the fact that the students had relatively high expectations for their ability to handle future academic demands, expectations for professional attainment were not assessed in this study. Mickelson (1990) found that, compared with students from middle-income families, students from lower income families believed that occupational attainment commensurate with their educational achievement was unlikely.

Which Variables Were Related to Positive Expectations?

In the present study, higher levels of positive future expectations were related to higher levels of perceived problem-solving efficacy, self-worth, perceived family and peer support, and school involvement, and lower levels of peer negative influences and problem behaviors. These findings are consistent with those of previous studies of children and adolescents in which were found positive relations between optimism/positive expectations and social support seeking, perceived competence, peer acceptance, school commitment, and socioemotional and academic adjustment (Israelashvili, 1997; Koizumi, 1995; Wyman et al., 1999).

In particular, studies have established a link between positive expectations and adjustment among disadvantaged youth. Wyman and colleagues (1992, 1993) studied fourth through sixth graders living in an urban area; those youth had experienced at least four major stressors in the following categories: family turmoil, poverty, violence, family separation, and death/illness. As noted earlier, Wyman et al. (1993) found that positive expectations discriminated among resilient and stress-affected youth and were related to several child- report and teacher-report measures of child adjustment. In addition, Werner and Smith (1992) reported on their 30-year longitudinal study of 700 children born on the island of Kauai in 1955. One-third of those youth had experienced at least four stressors (e.g., poverty, severe perinatal stress, parental substance abuse, or parental mental illness). Of those children, one-third developed into competent adults by age 30; competence referred to success in educational, vocational, and social pursuits. Based on interviews

with the resilient adults, their expectations that “the odds can be surmounted” was among several factors Werner and Smith (1992) identified as promoting positive adaptation (p. 207). Wyman et al. (1993) noted that because expectations and adjustment were measured cross sectionally in their 1992 study and the Werner and Smith (1992) study, prospective research is needed to identify the variables that contribute to changes in positive expectations for the future.

Which Variables Predicted Changes Over Time in Positive Expectations for the Future?

Initial self-perceptions of problem-solving efficacy were associated with increases in positive expectations. Other studies also have established a relation between perceived problem-solving success and positive expectations (Stipek & Hoffman, 1980). Checkoway and Zimmerman (1992) assessed the self-perceptions of leaders of community organizations with varying levels of effectiveness in solving neighborhood problems. Compared with leaders of the least effective organizations, leaders of effective organizations reported higher levels of life satisfaction and positive expectations for the future. Perhaps perceived problem-solving efficacy constitutes a relatively stable internal resource that the individual draws on to create ongoing opportunities for positive experiences. Repeated successful employment of problem-solving skills might affirm the individual's positive self-attributions and future expectations.

Initially higher levels of perceived family support also predicted increases in positive future expectations. Saucier and Ambert (1982) found that adolescents who had diminished parental involvement—through parental divorce, separation, or death—reported lower levels of optimism when compared with peers from intact families (see also Jackson & Meara, 1977). Sandler, Miller, Short, and Wolchik (1989) theorized that familial and extrafamilial support might protect children under stress by improving their self-esteem, assisting them in coping with stressful events, and generating perceptions of their social relations as secure. Based on the findings of the present study, another possible benefit of family support is the enhancement of positive expectations for the future. Thus, parental support might convey to children their parents' positive expectations for them, which in turn might shape children's self expectations and their adaptation to stress (Cowen et al., 1997). Seligman (1995) also has noted that the way in which parents handle their own successes and failures serves as a model for their children's anticipation of challenges.

In contrast to family support, peer support failed to predict increases in positive future expectations. The measure of peer support used reflects per-

ceptions of being part of a peer group; the measure does not assess the quality of the relationships with peer group members or the nature of the peer group's influences. A measure of peer support that fails to assess the values and behaviors of the peer group might be too global to predict future expectations. Peer influences can have a negative impact on adjustment by providing opportunities to participate in or witness problem behavior, depending on the predominant types of behaviors modeled by peers in the neighborhood (Dubow et al., 1997; Simons, Wu, Conger, & Lorenz, 1994).

Consistent with that notion, students who reported higher levels of peer negative influences reported engaging in higher levels of problem behaviors. In addition, higher levels of peer negative influences and problem behaviors both predicted decreases over 9 months in positive expectations for the future. Engaging in risky problem behaviors and associating with peers who do the same eventually might allow for the downward revision of adolescents' aspirations. This is likely because the consequences of such conduct and associations could be criticism and punishment by parents and school officials, poor school performance, adolescent parenthood, or criminal prosecution.

Limitations and Implications

Several limitations must be noted. First, the data were obtained from self-report measures. Adolescents might be biased to present themselves consistently in a favorable light. However, the results of the present study cannot be explained by same-informant variance (e.g., correlations between behavior problems and school involvement were not significant). The study of future expectations necessarily relies on self-representations, as does the assessment of contributing factors such as perceived competence and support. Nevertheless, follow-up studies should include measures from multiple sources (e.g., self, parents, and teachers).

Second, although the measures included in the present study have been used previously with youth from diverse backgrounds, it is possible that some of the measures might not be sensitive to important influences in some cultural or socioeconomic groups. For example, the family support measure is global and fails to assess specific sources (e.g., extended family) or aspects (e.g., enhancement of ethnic identity, parental interest or involvement in academic activities) of support that might be critical process variables in the development of children's expectations (McLoyd, 1998; Mickelson, 1990; Walker et al., 1995).

Third, although over 9 months initial positive future expectations did not predict changes in internal resources, supportive relationships, and peer influences, perhaps over longer time spans or multiple time points bidirectional

influences could emerge. Sustained positive expectations might impel the individual to shape his or her behavior and environment to foster successful outcomes (Scarr & McCartney, 1983). Consistent with the results of Wyman et al. (1993), in the present study initial positive future expectations did predict later decreases in behavior problems. Wyman et al. did not consider, however, the alternative that initial adjustment might predict changes in expectations. Further studies should be designed for consideration of the ongoing transactional relations among future expectations, internal resources, supportive relationships, peer influences, and behavioral adjustment.

Finally, the present study represents a preliminary effort to identify those variables that might be important predictors of changes in positive expectations for the future. Because several of those predictors were intercorrelated, theoretically meaningful groupings of variables (e.g., internal resources, social support) were examined separately so that their shared variance would not interfere with the identification of important predictors of future expectations. Although the predictors do not operate independently from one another (e.g., peer negative influences and problem behaviors), this approach is an important first step to develop comprehensive models of the emergence and maintenance of positive expectations for the future. Longitudinal studies with multiple time points are necessary to examine the interrelations of the predictors and the ways in which they influence positive expectations. For example, family support might enhance internal resources, which in turn might decrease exposure to peer negative influences and the accompanying problem behaviors, which might lead to increases in positive expectations.

The findings of this and related studies have implications for the design of interventions for at-risk youth. In addition to traditional psychoeducational approaches to enhance problem-solving ability, interventions might include extra-class opportunities, such as community service activities, to create success experiences. For example, the Teen Outreach Program (Allen, Kuperminc, Philliber, & Herre, 1994) includes a community service component for junior and senior high school youth. Additional methods to enhance positive expectations might include increasing resistance to peer negative influences (e.g., mentoring opportunities matching program youth with resilient older adolescents or young adults from the same neighborhood) and strengthening family support (e.g., "family-targeted" rather than "child-targeted" interventions, community-based family activities, reducing parental stressors that might erode family support).

The common purpose of prevention programs for youth in at-risk environments is the promotion of psychosocial resilience, that is, the ability to achieve competent outcomes despite exposure to chronic stressors. Wyman et al. (1993) found that positive expectations for the future were among the

most powerful variables that discriminated stress-affected youth from resilient youth. In the present study, variables were identified that might promote positive expectations for the future and, therefore, enhance psychosocial resilience. The enhancement of positive future expectations might be an important index of the impact of interventions designed to promote protective factors.

NOTE

1. A series of ANOVAs was computed in which gender, grade level, and parental marital status were entered as the independent variables to examine their association with the other major study variables at Time 1 and Time 2. There were two significant gender effects, both on the same variable at each time point: boys reported higher levels of global self-worth at Time 1, $F(1, 74) = 5.51, p < .05$, and Time 2, $F(1, 76) = 4.35, p < .05$. There were significant grade effects: Eighth graders reported the highest levels of problem behaviors at Time 1, $F(2, 86) = 6.25, p < .01$ (eighth > seventh and sixth), and Time 2, $F(2, 84) = 4.48, p < .05$ (eighth > sixth), and higher levels of perceived peer negative behavior at Time 1, $F(2, 87) = 13.44, p < .01$, and Time 2, $F(2, 84) = 10.21, p < .01$ (eighth > seventh and sixth). Effects found only at one time point were sixth graders reported higher levels of family support than both seventh and eighth graders at Time 2, $F(2, 84) = 4.81, p < .05$, and sixth and eighth graders reported higher levels of self-worth than did seventh graders at Time 2, $F(2, 76) = 7.80, p < .01$.

Separate ANOVAs were computed for ethnicity, dropping 17 students from the "other" category (e.g., biracial, missing). Only one significant effect was found: Hispanic students reported higher levels of perceived problem-solving skills at Time 2 than did African American students, $F(2, 74) = 3.58, p < .05$, but neither group differed significantly from Caucasian students.

Correlations of age, number of adults and children in the home, parental occupational statuses with the major study variables revealed that only age was related to the same major study variable at both time points: older students reported higher levels of problem behaviors and perceived peer negative behaviors (r s ranged from .31 through .48), mirroring the grade level ANOVA effects. The few remaining significant correlations were related to a variable at only one time point and were below $r = .30$.

Because these are ancillary analyses, some details are not reported; additional information such as means and standard deviations for all variables by gender, grade level, parental marital status, and ethnicity can be obtained by contacting the authors.

REFERENCES

- Allen, J. P., Kuperminc, G., Philliber, S., & Herre, K. (1994). Programmatic prevention of adolescent problem behaviors: The role of autonomy, relatedness, and volunteer service in the Teen Outreach Program. *American Journal of Community Psychology*, 22, 617-638.
- Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, 63, 989-1003.

- Attar, B. K., Guerra, N. G., & Tolan, P. H. (1994). Neighborhood disadvantage, stressful life events, and adjustment in urban elementary-school children. *Journal of Clinical Child Psychology*, 23, 391-400.
- Bowlby, J. (1982). *Attachment and loss: Volume 1. Attachment* (2nd ed.). New York: Basic Books.
- Carver, C. S., Reynolds, S. L., & Scheier, M. F. (1994). The possible selves of optimists and pessimists. *Journal of Research in Personality*, 28, 133-141.
- Checkoway, B., & Zimmerman, M. A. (1992). Correlates of participation in neighborhood organizations. *Administration in Social Work*, 16, 45-64.
- Cohen, J., & Cohen, P. E. (1975). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Cowen, E. L., Wyman, P. A., Work, W. C., Kim, J. Y., Fagen, D. B., & Magnus, K. B. (1997). Follow-up study of young stress-affected and stress-resilient urban children. *Development and Psychopathology*, 9, 565-577.
- Davis, S. F., Hanson, H., Edson, R., & Ziegler, C. (1992). The relationship between optimism-pessimism, loneliness, and level of self-esteem in college. *College Student Journal*, 26, 244-247.
- Dembo, R., Grandon, G., Taylor, R. W., La Voie, L., Burgos, W., & Schmeidler, J. (1985). The influence of family relationships on marijuana use among a sample of inner city youths. *Deviant Behavior*, 6, 267-286.
- Dubow, E. F., Edwards, S., & Ippolito, M. F. (1997). Life stressors, neighborhood, disadvantage, and resources: A focus on inner-city children's adjustment. *Journal of Clinical Child Psychology*, 26, 130-144.
- Dubow, E. F., Kausch, D. F., Blum, M. C., Reed, J., & Bush, E. (1989). Correlates of suicidal ideation and attempts in a community sample of junior high and high school students. *Journal of Clinical Child Psychology*, 18, 158-166.
- Dubow, E. F., Smith, K., & Arnett, M. (1998). *YWCA Incentives for Excellence program: Results of the pre-test and post-test survey of youth knowledge, attitudes, and behavior*. Bowling Green, OH: Bowling Green State University.
- Dubow, E. F., & Ullman, D. G. (1989). Assessing social support in elementary school children: The survey of children's social support. *Journal of Clinical Child Psychology*, 18, 52-64.
- Fischer, M., & Leitenberg, H. (1986). Optimism and pessimism in elementary school-aged children. *Child Development*, 57, 241-248.
- Garbarino, J. (1992). The meaning of poverty in the world of children. *American Behavioral Scientist*, 35, 220-237.
- Haggerty, R. J., Sherrod, L. R., Garmezy, N., & Rutter, M. (Eds.). (1994). *Stress, risk, and resilience in children and adolescents: Processes, mechanisms, and interventions*. Cambridge, UK: Cambridge University Press.
- Harter, S. M. (1988). *Manual for the Self-Perception Profile for Adolescents*. Denver, CO: University of Denver.
- Holahan, C. J., & Moos, R. H. (1981). Social support and psychological distress: A longitudinal analysis. *Journal of Abnormal Psychology*, 90, 365-370.
- Israelashvili, M. (1997). School, adjustment, school membership and adolescents' future expectations. *Journal of Adolescence*, 20, 525-535.
- Jackson, R. M., & Meara, N. M. (1977). Father identification, achievement, and occupational behavior of rural youth: 5-year follow-up. *Journal of Vocational Behavior*, 10, 82-91.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1991). *Drug use among American high school seniors, college students, and young adults, 1975-1990*. Rockville, MD: National Institute on Drug Abuse.

- Koizumi, R. (1995). Feelings of optimism and pessimism in Japanese students' transition to junior high school. *Journal of Early Adolescence, 15*, 412-428.
- Lyons, A., & Chamberlain, K. (1994). The effects of minor events, optimism and self-esteem on health. *British Journal of Clinical Psychology, 33*, 559-570.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53*, 185-204.
- Merk, F. L. (1993). *Coping with peer pressure to use cigarettes, alcohol, and other drugs in adolescence*. Unpublished master's thesis, Department of Psychology, Bowling Green State University, Bowling Green, OH.
- Mickelson, R. A. (1990). The attitude-achievement paradox among Black adolescents. *Sociology of Education, 63*, 44-61.
- Moos, R. H., Cronkite, R. C., Billings, A. G., & Finney, J. W. (1986). *Health and daily living form manual*. Palo Alto, CA: Stanford University Medical Center, Social Ecology Laboratory.
- Mrazek, P. J., & Haggerty, R. J. (1994). *Reducing risks for mental disorders: Frontiers for preventive intervention research*. Washington, DC: Institute of Medicine, National Academy Press.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Pabon, E., Rodriguez, O., & Gurin, G. (1992). Clarifying peer relations and delinquency. *Youth and Society, 24*, 149-165.
- Sandler, I., Miller, P., Short, J., & Wolchik, S. (1989). Social support as a protective factor for children in stress. In D. Belle (Ed.), *Children's social networks and social supports* (pp. 1-55). New York: Wiley.
- Saucier, J., & Ambert, A. (1982). Parental marital status and adolescents' optimism about their future. *Journal of Youth and Adolescence, 11*, 345-354.
- Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype-environment effects. *Child Development, 54*, 424-435.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*, 219-247.
- Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research, 16*, 201-228.
- Schmidt, D., & Dubow, E. F. (1998). [A six-month and one-year follow-up study of the effects of a primary prevention program for fourth graders]. Unpublished raw data.
- Seligman, M. E. P. (1995). *The optimistic child*. Boston: Houghton Mifflin.
- Simons, R. L., Wu, C., Conger, R. D., & Lorenz, P. O. (1994). Two routes to delinquency: Differences between early and late starters in the impact of parenting and deviant peers. *Criminology, 32*, 247-275.
- Skinner, E., & Edge, K. (1998). Reflections on coping and development across the lifespan. *International Journal of Behavioral Development, 22*, 357-366.
- Stipek, D. J., & Hoffman, J. M. (1980). Development of children's performance-related judgments. *Child Development, 51*, 912-914.
- Strack, S., Carver, C. S., & Blaney, P. H. (1987). Predicting successful completion of an aftercare program following treatment for alcoholism: The role of dispositional optimism. *Journal of Personality & Social Psychology, 53*, 579-584.
- Walker, K., Taylor, E., McElroy, A., Phillip, D., & Wilson, M. N. (1995). Familial and ecological correlates of self-esteem in African American children. In M. N. Wilson (Ed.), *African American family life: Its structural and ecological aspects* (pp. 23-34). San Francisco: Jossey-Bass.

- Weingert, L., & Rosen, A. (1995). Optimism, self-esteem, mood, and subjective health. *Personality and Individual Differences*, 18, 653-661.
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.
- Wyman, P. A., Cowen, E. L., Work, W. C., Hoyt-Meyers, L., Magnus, K. B., & Fagen, D. B. (1999). Caregiving and developmental factors differentiating young at-risk urban children showing resilient versus stress-affected outcomes: A replication and extension. *Child Development*, 70, 645-659.
- Wyman, P. A., Cowen, E. L., Work, W. C., & Kerley, J. H. (1993). The role of children's future expectations in self-system functioning and adjustment to life stress: A prospective study of urban at-risk children. *Development and Psychopathology*, 5, 649-661.
- Wyman, P. A., Cowen, E. L., Work, W. C., & Parker, G. R. (1991). Developmental and family milieu correlates of resilience in urban children who have experienced major life stress. *American Journal of Community Psychology*, 19, 405-426.
- Wyman, P. A., Cowen, E. L., Work, W. C., Raoof, B. A., Gribble, P. A., Parker, G. R., & Wannon, M. (1992). Interviews with children who experienced major life stress: Family and child attributes that predict resilient outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 904-910.

Requests for reprints should be addressed to Eric F. Dubow, Department of Psychology, Bowling Green State University, Bowling Green, OH 43403-0228; e-mail: edubow@bgnet.bgsu.edu.