This study investigates the effects of parental efficacy on promotive parenting strategies, children's self-efficacy, and children's academic success in adverse environments. Data were obtained from a 1991 survey of 376 mothers, both White and Black, and their young adolescents in inner-city Philadelphia. Analyses show that beliefs in parental efficacy predict the promotive strategies of Black mothers but not those of White mothers, a difference that reflects the higher risk environments of Black families. They tend to live in more socially isolated and dangerous neighborhoods than White families. Overall, mothers' parental efficacy is a stronger predictor of children's self-efficacy and academic success in disadvantaged family and environmental contexts, such as Black single-parent households and Black families with a weak marriage, than in White families or Black families with a strong marriage. Surprisingly, mothers' efficacy beliefs but not their promotive strategies are associated with the self-efficacy and academic success of their children.

Effects of Mothers' Parental Efficacy Beliefs and Promotive Parenting Strategies on Inner-City Youth

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Inner-city neighborhoods, with high rates of violence, drug use, and unemployment, can place children at considerable risk of impaired life chances and early death (Elliot, Wilson, Huizinga, & Sampson, 1996; MacLeod, 1987; Wilson, 1987). Despite unpromising life prospects, many children manage to rise above the harsh limitations of their environment. Children's own personal efforts are likely to make a difference in such an achievement, particularly in education, and family members or adult mentors play an important role as well. However, surprisingly little is known about factors that enable children to succeed in adverse environments.

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The traditional answer to how inner-city youth escape the dangers of their environment centers on the family and the role of parents. In theory and empirical research, success is aided by nurturing parents who maintain high standards of excellence and discipline (e.g., Clark, 1983; Eccles et al., 1993; Mayer, 1997). Typically, the focus is on what parents do as parents within the household. Left out of the picture is the environmental and social context of the family and the parents' efforts to maximize opportunities while minimizing risks.

This study examines the effects of parental efficacy beliefs and promotive parenting strategies on children's self-efficacy beliefs and academic success in different family and community contexts, using data on 376 mothers and their adolescent children from inner-city neighborhoods in Philadelphia. The data were obtained in 1991 from interviews and questionnaires with mothers and their respective children (age 11 to 14). The sample includes Black and White households from five census blocks of inner-city Philadelphia that average 20% on poverty rates. Sixty-eight percent of the families are Black, and 50% are headed by a single parent, most of whom are Black.

Black families tend to live in more economically deprived and dangerous residential areas than White families (Massey & Denton, 1993). Hence, Black mothers may feel a greater urgency than White mothers to engage in promotive parenting strategies that offer successful developmental pathways for their children. Promotive parenting strategies are defined as activities that are designed to cultivate children's skills, talents, and interests and to prevent the occurrence of negative events and experiences (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999). For example, parents who use promotive strategies may encourage and work with their children to develop their children's personal talents and skills, enroll them in after-school programs, point out dangers in the neighborhood, and involve their children in positive activities both inside and outside of the neighborhood.

Parents are more likely to engage in these activities if they have the confidence that their behavior will indeed have a positive effect on their children. By contrast, parents who feel that they have little or no control over their children's lives and their children's environment are less apt to engage in promotive strategies (Eccles et al., 1993; Furstenberg, 1993). According to Bandura (1997), "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Parental efficacy is defined as the parent's beliefs in his or her ability to influence the child and his or her environment to foster the child's development and success.

Finally, it is expected that both promotive strategies and parental efficacy are related to the developmental success of young adolescents, defined in this study as their own sense of self-efficacy and academic success. In theory, a parent's sense of efficacy would affect the developmental success of children indirectly through promotive strategies as well as directly through the presentation of a positive role model. The generality of the links between promotive strategies, parental efficacy, and child success measures is tested in comparisons by race and family types (strong marriages, weak marriages, and single-parent households).

PARENTAL EFFICACY, PROMOTIVE STRATEGIES, AND CHILDREN'S SUCCESS

Families who live in the inner-city neighborhoods of major cities face an especially difficult task. Prevailing dangers outside the family, such as increasing problems of violence, gangs, and drugs, make parenting ever more challenging (Furstenberg, 1993). How can parents deal with situations of this kind? A qualitative study on low-income families in inner-city Philadelphia neighborhoods conducted in 1989-1990 by Furstenberg (1993) provided some tentative answers.

Furstenberg (1993) found that parents used different strategies to promote their children's development and to shield them from the dangers of the street. One approach was tight supervision of the child. In socially isolated (anomic) neighborhoods, this often meant keeping children at home or chaperoning them wherever they went. Parents would try to provide a safe environment for their children at home and instill in them a feeling of being different from the other people in the neighborhood. One effective way of doing this was by pointing out bad examples of people living in the neighborhood and explaining how the danger of the streets had destroyed their lives. By contrast, in socially integrated (cohesive) neighborhoods, parents could rely on trusted neighbors to assume a supervisory role when their children were away from home.

Because it becomes increasingly difficult to keep adolescent children and especially boys at home with advancing age, an alternate solution for many parents consisted of placing their children in after-school programs offered either by the school, the church, or other community organizations, for example, Boys and Girls Clubs. In areas where community organizations were either not present or parents did not consider these activities as beneficial to their children, parents would sometimes try to get their children enrolled in activities outside of their own neighborhood. This was

often facilitated by relatives and friends who lived in less dangerous neighborhoods. Other parents would get involved in community services themselves (e.g., as a volunteer at school or church or by organizing community activities for children) to make their neighborhood a better place for children. Parents also tried to find formal and informal sponsors for their children (i.e., teachers, ministers, counselors, and coaches) who were willing to further their children's academic, social, and emotional development.

However, not all parents engaged in these promotive strategies, and not all employed them efficiently and to the same extent. According to Furstenberg (1993), efficacious parents tended to be more successful in their socialization efforts, especially if they lived in anomic neighborhoods. Efficacy beliefs tend to encourage parents to engage in activities that are in fact beneficial for the development of the child (Bugental & Shennum, 1984; Eccles et al., 1993; Gross, Fogg, & Tucker, 1995; Macphee, Fritz, & Miller-Heyl, 1996; Schneewind, 1995; Teti & Gelfand, 1991). Parents in the qualitative study accomplished this protection through either a direct influence on the child or by improving the child's immediate and larger environment. By contrast, parents with very low efficacy beliefs, for example, who were convinced that their parenting efforts would be futile, often did not try to promote their children's development or to improve their children's environment.

The conceptual model in Figure 1 is based on the qualitative research results by Furstenberg (1993) and Bandura's (1997) theory of self-efficacy. The model shows a reciprocal relationship between parental efficacy beliefs, promotive parenting strategies, and the child's developmental success (Baker & Heller, 1996; Hoeltje, Zubrick, Silburn, & Garton, 1996). Efficacy beliefs work very much like a self-fulfilling prophecy (e.g., Watzlawick, 1984) (see solid line arrows in Figure 1). Parents who feel efficacious as parents are apt to be those who are most engaged in promotive parenting strategies (Eccles et al., 1993; Furstenberg, 1993). These strategies in turn are likely to increase the child's chances for success, either academically or psychologically (Bugental & Shennum, 1984; Eccles et al., 1993; Schneewind, 1995; Teti & Gelfand, 1991). In addition, parental efficacy beliefs may also have a direct effect on children's developmental success. Parents with a high sense of efficacy are likely to serve as role models for their children who will adopt their parents' attitudes and beliefs independently of the parents' actual behavior (Eccles et al., 1993; Ollendick, 1979; Schneewind, 1995; Whitbeck, 1987). Children's sense of efficacy in turn tends to have a positive effect on their success in school and other social settings (Bandura, 1997).

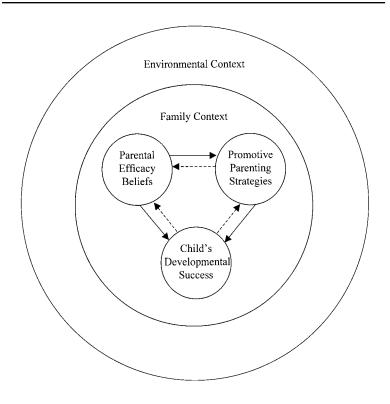


Figure 1: Conceptual Model

The direction of the effects may also be reversed (see broken line arrows in Figure 1). Bandura (1995) claimed that "the most effective way of creating a strong sense of efficacy is through *mastery experiences*" (p. 3) (also see Elder & Conger, 2000). Effective parenting tends to enhance feelings of personal efficacy as a parent (Bandura, 1997; Eccles et al., 1993). By contrast, parents who are low on perceived self-efficacy may try only halfheartedly to engage in promotive parenting strategies and give up easily when they encounter difficulties, thereby confirming beliefs in their powerlessness (Bandura, 1995, 1997; Eccles, 1983). Similarly, parents with maladjusted children may have difficulties in sustaining a sense of parental agency when faced with a contradictory reality. By contrast, children's developmental success is likely to strengthen parents' beliefs in their efficaciousness and in the usefulness of their promotive strategies.

However, even for efficacious parents, success is not always guaranteed. What happens when efficacy beliefs fail? Does failure change parents' beliefs in their own parenting abilities and make them less efficacious? Bandura (1995, 1997) and other expectancy theorists (e.g., Dweck & Elliott, 1990; Eccles, 1983; Eccles et al., 1993; Weiner, 1985) argued that efficacy and expectancy beliefs are relatively robust and are sustained even if success is not achieved. Rather than giving up or doubting their own capabilities, efficacious people interpret failure only as a temporary setback that can be overcome with enough effort. Parents with a strong sense of efficacy are determined to overcome the barriers that prevent success. Similarly, children who observe their parents succeed and overcome difficulties in their lives are most likely to develop a strong sense of self-efficacy themselves and to prevail, for example, academically, even under adverse circumstances.

This interaction between efficacy beliefs, promotive parenting strategies, and children's success is likely to vary by environmental and family contexts (Furstenberg et al., 1999) (see circles in Figure 1). The process may be strongest in socially isolated and dangerous neighborhoods. Under circumstances of this kind, parents with weak efficacy beliefs are likely to be overwhelmed by the task at hand, but parents with strong beliefs are most likely to make a positive difference in their children's lives through their promotive behavior and positive example. By contrast, in socially integrated and supportive neighborhoods, even parents low on efficacy may be encouraged by neighbors to help their children succeed in school and other social settings and in turn be rewarded by their children's developmental success. Judging from Massey and Denton's (1993) study on residence and race, Black families are likely to live mostly in socially isolated and dangerous neighborhoods, with White families concentrated in more socially integrated and supportive neighborhoods.

The relationship between parental efficacy, promotive parenting strategies, and children's developmental success may be even stronger in settings that combine adversities (Furstenberg et al., 1999). In these settings, not only neighborhood support is unavailable to foster promotive strategies of parents and children's success, but social and parenting support within the family is also lacking, either because the mother is unmarried or because the marriage is under strain (Elder, Eccles, Ardelt, & Lord, 1995). In these stressful circumstances, parents may not even try to influence their children's behavior and their environment unless they are convinced of their efficacy as parents. Conversely, efficacious parents represent role models in these disadvantaged environments who encourage their children to succeed although the odds are against them. Hence, we expect pa-

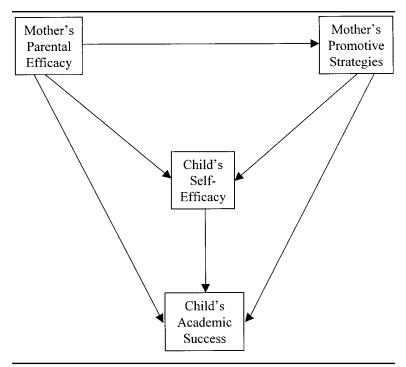


Figure 2: Path Model of the Effects of Mothers' Parental Efficacy Beliefs and Promotive Strategies on Children's Self-Efficacy and Academic Success

rental efficacy to exert the strongest effect (directly and indirectly) on children's self-efficacy and academic success in Black single-parent households and among Black families with relatively weak marriages. Weak marriages are defined as partnerships that are characterized by relatively weak spousal support, negative interaction patterns, and relatively high levels of marital disagreement.

In theory, the associations between parental efficacy, promotive strategies, and children's developmental success are bidirectional. However, it is expected that the effect of parental efficacy beliefs on promotive strategies is stronger than the opposite effect and that parents exert a stronger influence on their children than children do on their parents (solid line arrows in Figure 1). The cross-sectional nature of the data does not allow us to test this hypothesis, but considerations of this kind led to the following hypotheses and the path model in Figure 2.

Hypothesis 1: Black families are more likely than White families to live in economically disadvantaged neighborhoods and to perceive their neighborhoods as more socially isolated and dangerous and less socially integrated and supportive than White families.

Assuming support for this hypothesis, we shall test the following hypotheses:

- Hypothesis 2: The positive effects of mother's parental efficacy beliefs on her promotive strategies and on the self-efficacy and the academic success of her child will be stronger in Black families than in White families, controlling for all other variables in the model (see Figure 2).
- Hypothesis 3: Similarly, the positive effects of mother's promotive strategies on the self-efficacy and academic success of her child will be stronger in Black families than in White families, controlling for all other variables in the model.
- Hypothesis 4: Mother's parental efficacy will exert the strongest positive effect (directly and indirectly) on the self-efficacy and academic success of her child in Black single-parent households and in Black families with weak marriages, controlling for all other variables in the model.
- Hypothesis 5: Children's perceived self-efficacy is strongly related to their academic success independently of mother's parental efficacy, promotive strategies, and family and environmental contexts.

The following variables were controlled in the analyses: mother's education, total family income, and gender and age (in years) of child. Higher educated parents are typically more engaged in their children's development and may be more adept at finding programs and activities for their children to prevent negative developmental pathways than parents with a lower educational background (Elder & Conger, 2000). Furthermore, total family income is likely to be positively related to the parents' ability to afford these programs for the child. Poverty, by contrast, tends to increase parental stress, which may lead to a decline in parental efficacy and promotive parenting strategies (Bruce, Takeuchi, & Leaf, 1991; Elder et al., 1995). Black families and single mothers in particular are most likely to be affected by the negative effect of poverty on parental behavior (McLoyd, 1990). Moreover, poor children and especially children from poor single-parent households are at increased risk for negative developmental pathways (Lempers, Clark-Lempers, & Simons, 1989; McLanahan, Astone, & Marks, 1991; McLeod & Edwards, 1995; McLeod & Shanahan, 1993, 1996; Takeuchi, 1991). Parental education, by contrast, is a possible protective factor for children's behavior problems (Velez, Johnson, & Cohen, 1989; Werner, 1985). Through encouragement and modeling, higher educated parents may foster their children's self-efficacy beliefs and their academic success. Finally, parents may engage more in promotive strategies for older children and boys who tend to be most at risk for negative developmental pathways, particularly in economically deprived and dangerous neighborhoods (Elliot et al., 1996; Heimer, 1996; Sampson & Laub, 1992; Warr, 1993).

METHODOLOGY

SAMPLE

For reasons of cost and convenience, this study was nested into an existing study of four areas of Philadelphia. The study selected for less affluent neighborhoods, excluding middle-class and upper middle-class areas of the city. The most impoverished areas of North Philadelphia were also excluded. To maximize comparisons between White families and Black families, the sampling frame underrepresented other ethnic minorities. Sampling occurred as follows: Within each of the four catchment areas, a sample of census tracts was identified. From these, up to four block groups were randomly selected. Using a reverse telephone directory, an enumeration was made by phone of all households with listed phone numbers. These households were then called to identify those with a youth between 11 and 14 years of age. A 10% sample of the families with no telephones or unlisted numbers were randomly drawn and screened in person by interviewers. Of the 598 families with children in the appropriate age range, 82% (489) completed interviews.

PROCEDURE

In each household, the primary caregiver (in 84% of all the cases, the biological mother of the child) and a target adolescent were separately interviewed by a trained interviewer. In addition, both of these participants were given a self-administered questionnaire to complete while the interviewer was conducting the interview with the other study member. The interview and the self-administered questionnaire consisted of items assessing parent and child perceptions of the neighborhood, parenting strategies, family environment and relationships, and parent and child adjustment. In addition, the interviewers completed a short assessment of their observations during their interviews with different family members. This assessment form tapped the interviewer's impressions of the neighborhood and home in which the family lived as well as of characteristics of

the interviewees (e.g., social interaction style, physical appearance, and communication abilities).

PARTICIPANTS

Two thirds of the study families are Black. Eighty-four percent of the primary caregivers are mothers, 6% are fathers, and 5% are grandmothers of the target youth. Eighty percent of the single mothers are Black. Forty-five percent of the families have less than \$20,000 in total family income. Twice as many Black families as White families have incomes below the median, and the former are also concentrated in the poorer neighborhoods. The neighborhood poverty rates vary from 10% to 63%. Twelve percent of the mothers have a college education, and 52% report having a high school diploma or its equivalent.

Because a key feature of this study is to explore potential differences in the parenting processes of Black parents and White parents, the present sample consists of only Black families and White families. Other ethnic groups and mixed racial families are excluded from the analyses. In addition, because 84% of the adult respondents are mothers and the effect of fathers, grandmothers, and other relatives on children is likely to be different than the relationship between mothers and their children, only families with mothers as adult respondents are included in the analyses, resulting in 376 families. Variations from this number reflect patterns of missing data. Black families in this sample have significantly lower total family incomes than White families (p < .05), although there is no significant difference between Black mothers and White mothers with regard to their educational background (see appendix).

DESCRIPTION OF MEASURES

Mother's parental efficacy beliefs. These were assessed by two sets of questions. In one set, parents were asked to indicate how much they could do to get their child to do, or achieve, several concrete things on a scale of 1 (nothing) to 4 (a lot) (e.g., to stay out of trouble in school, to get a good job, to stay in school until graduation, to do his or her homework, to practice safe sex, and to feel good about himself or herself). In the second set, parents were asked how well they could influence certain things that affect their child on a scale of 1 (not very well) to 4 (very well) (e.g., How well can you keep track of child outside of home, influence what the child does after school, keep child from going to dangerous areas, and get help at school?). The 14 items for the first scale and the 6 items for the second

were created for the Philadelphia Family Management Study (Furstenberg et al., 1999). The items for each scale were averaged with alpha coefficients of .90 and .78 for the first and second scale, respectively. Parental efficacy is measured as the average of the two scales.

Mother's promotive parenting strategies. The promotive strategy measures used in this study were also created for the Philadelphia Family Management Study (see Eccles et al., 1992). Mothers were asked about parenting strategies designed to create positive experiences for the child and to promote the development of the child's skills and interests and strategies implemented to prevent bad experiences and bad outcomes for children. To assess both types of strategies, mothers were asked how often they did each of two sets of behaviors with their child. The first set asked how frequently they used different types of strategies to help their child develop a particular talent or interest. The second set asked how often they used various techniques to prevent their child from getting involved in activities or situations that worry them. All items were coded on a 3-point response scale (ranging from 1 = never to 3 = often).

The following four indices were used to measure promotive strategies: (a) encouragement, (b) collaborative activity between parent and child (work with child), (c) involvement in out-of-house programs and activities, and (d) proactive prevention.

The index of encouragement is an average of four items that reflect verbal feedback parents use to encourage the talents of their children (e.g., "How often have you told child that this is a very important talent because it will help him or her in the future?" and "How often have you told child how to get better at the skill?"). Cronbach's alpha for the scale is .75.

The index of work with child is an average of the following two items: "How often have you made sure child practices the skill at home?" and "How often have you done the activity with child?" Internal consistency for this scale is .61.

The index of involvement in outside programs is the average of four items tapping the extent to which parents provide their child with opportunities for getting involved in programs in the community or school that could foster the child's talent (e.g., "How often have you signed child up for classes or programs?" and "How often have you found out about programs that could help child get better?"). The alpha coefficient for this scale is .68.

The index of proactive prevention is the average of three items. Parents were asked how often they use the following strategies to prevent bad things from happening to their children: "Point out how dangers have de-

stroyed the lives of people you know," "Get child into good activities in the neighborhood," and "Get child involved in good activities outside of the neighborhood." Cronbach's alpha coefficient for this scale is .56.¹

The variable of mother's promotive parenting strategies is computed as the average of the four indices. Cronbach's alpha coefficient for this composite scale is .71.

Child's self-efficacy. This represents the child's own perception of self-control and control over his or her environment. Example items are "How well can you finish homework assignments by deadlines? Control your temper? Stand up for yourself when you are being treated unfairly?" The 14 items are measured on a 7-point scale ranging from 1 (not at all well) to 7 (very well). Cronbach's alpha for the scale is .81.

The variable of *child's academic success* is a composite of the following three scales: (a) the child's report of his or her own academic success, (b) the parent's report of the child's academic success, and (c) the interviewer's assessment of the child's cognitive abilities. Multiple informants help to minimize confounding effects, such as the tendency of emotionally strained parents to view their children in a negative light (Angel & Worobey, 1988; Breslau, Davis, & Prabucki, 1988). Cronbach's alpha for the composite scale is .72.

The child's report of his or her own academic success is the sum of five standardized items (e.g., self-reported grades; "How many Ds/Fs did you get last year?" and "Have you ever been held back a grade?").

The parent's report of the child's academic success is the sum of three standardized items (report of grades, has child failed a class in past 2 years, and has child repeated any grades).

The interviewer's assessment of the child's cognitive abilities is the sum of six standardized items, such as the interviewer's impression of the child's intelligence (from $1 = below \ average$ to 5 = superior), assets and coping skills (from $1 = no \ special \ assets \ and \ coping \ skills \ to <math>5 = quite \ a$ few), and special talents (from $1 = no \ special \ talents \ to <math>5 = special \ talents$ that will child help get ahead).

Marital strength. Marital strength is assumed to be a multidimensional construct (Spanier & Lewis, 1980). The following two indicators were used to assess the level of marital strength in this study: (a) marital relationships (a composite of positive relationships minus severe negative relationships) and (b) marital adjustment.

The indicator of positive marital relationships is the average of the mother's report of the frequency during the past year that she and her hus-

band interacted in the following ways: asked each other's opinion about an important matter, acted loving and affectionate toward each other, and helped one another do something important. The frequency of these behaviors (and of the negative behaviors listed next) was reported on a 7-point response scale that described specific frequency ranges (0 = never through 6 = more than 20 times). The indicator of severe negative relationships is the average of the mother's responses to the following items: "In the last year, how many times have you (your spouse) pushed, grabbed, shoved, or threw something at spouse (you)? and hit/tried to hit spouse (you) with something?" The alpha coefficients for positive relationships and severe negative relationships are .85 and .84, respectively. These scores were subtracted from each other to create a composite reflecting the extent to which positive interactions outnumber, on the average, severe negative interactions.

Marital adjustment measures the extent to which (from 1 = often to 3 = never) mothers reported arguing with their spouse about money, sex, how to discipline their child, the child's problem behavior, chores and responsibilities, drinking and drugs, and other women or men. In addition, the mothers were asked how well they got along with their husband (1 = not well at all to 3 = very well). Unit-weighted items were averaged to form a single index with a Cronbach alpha coefficient of .77.

Standardized scores for marital relationships and marital adjustment were averaged and divided at the median to identify relatively strong marriages and weak marriages. The mean difference in marital strength between relatively strong marriages (mean = .69) and relatively weak marriages (mean = -.56) is highly statistically significant with a *t*-value of 14.63 (p < .001).

Mother's education. This was measured by the reported highest grade completed. Total family income refers to total reported family income for 1989. It was measured in increments of \$10,000 on a scale ranging from 1 (less than \$5,000) to 7 (\$50,000 or more). Race, marital status, and gender and age of child (in years) was determined from demographic interview information.

NEIGHBORHOOD VARIABLES

Quality of teen services in the neighborhood was assessed by asking mothers to rate the following three statements on a scale from 1 (poor) to 4 (excellent): "The parks and playgrounds in this neighborhood are . . .," "The recreational services for kids in this neighborhood are . . .," and "The

mental health and counseling services in this neighborhood are . . ." The answers were averaged, resulting in an alpha coefficient of .77.

The extent of *social control in the neighborhood* was measured by asking mothers the following:

How likely is it that someone would do something if someone was breaking into your home in plain sight? someone was trying to sell drugs to your children in plain sight? there was a fight in front of your house and someone was being beaten? your kids were getting into trouble? a child was showing disrespect for an adult?

Answer categories range from 1 (*very unlikely*) to 4 (*very likely*). The alpha coefficient for the average of the five items is .83.

Neighborhood cohesion is the average of six items. Mothers were asked if they agree or disagree (from 1 = strongly disagree to 5 = strongly agree) that

their neighbors have similar views how to raise children; this is a close-knit neighborhood; there are a lot of adults around here that their children can look up to; they would hire a neighbor to do a job for them, such as babysitting or fixing a car; adults in this neighborhood can find money for activities for kids; and they can count on neighbors to let them know about opportunities for kids.

Coefficient alpha for this scale is .77.

Neighborhood problems is the average of 23 items measuring how much of a problem (from $1 = not \ a \ problem$ to $3 = a \ big \ problem$) several social problems are in the mother's neighborhood (e.g., high unemployment, vandalism, assaults and muggings, delinquent gangs or drug gangs, and poor schools). The alpha coefficient for this scale is .93.

In addition, the following *census track characteristics in 1990* were available: percentage of families living in poverty, percentage of individuals living in poverty, median family income, percentage of African Americans, percentage of female-headed households, and percentage of owner-occupied buildings.

ANALYSIS

First, independent sample *t* tests were performed to compare Black families and White families with regard to their neighborhood characteristics. Second, structural equation modeling using LISREL 8.20 and a maximum likelihood (ML) estimation procedure was applied to estimate the

path model in Figure 2 for different subgroups, compute indirect effects, and determine the statistical difference between individual coefficient estimates in multigroup comparisons (Bollen, 1989; Jöreskog & Sörbom, 1996a). The statistical difference between coefficient estimates in two subgroups was computed for each pair of estimates separately, which resulted in 1 degree of freedom (df) for all multigroup comparisons. Because the number of cases in some of the subgroups is very small, each variable was measured by a single indicator only, although for some of the variables multiple indicators are available.

The path model contains the following three dichotomous variables as control variables: single mother, weak marriage, and gender of child. However, because the dichotomous variables are x-variables and all other variables in the model are considered to be continuous and multivariate normally distributed, the covariance matrix can be analyzed (Jöreskog & Sörbom, 1996b; Kline, 1998), which results in ML coefficient estimates that are identical to ordinary least squares (OLS) estimates obtained from multiple regression analyses. Hence, third, multiple regression analyses were performed to calculate adjusted multiple R^2 values and their respective statistical significance for the three dependent variables in the model. LISREL provides only the unadjusted R^2 values. Because the path model in Figure 2 is fully saturated with zero df, no overall fit measures are available.

RESULTS

DIFFERENCES IN NEIGHBORHOOD CHARACTERISTICS BY RACE

Hypothesis 1 states that Black families are more likely to live in economically disadvantaged, socially isolated, and dangerous neighborhoods and less likely to reside in socially integrated and supportive neighborhoods than White families. The analyses in Table 1 confirm this hypothesis. Black mothers perceived their neighborhoods as significantly more inferior than White mothers with regard to the quality of teen services available, the extent of social control and cohesion within the neighborhood, and the severity of neighborhood problems. The families also tend to live in racially segregated areas, with Black families living in areas with an average concentration of African Americans of 86% and White families residing in areas with an average concentration of African Americans of 14%.

TABLE 1 Neighborhood Characteristics by Race

		1					
		Families = 252)		Families = 124)		Significance of Difference	
Neighborhood Characteristic	s M	SD	M	SD	T-Value	p	
Mother's perception of							
neighborhood							
Quality of teen services	1.86	0.58	2.02	0.64	-2.34	.020	
Social control	3.10	0.70	3.32	0.52	-3.43	.001	
Neighborhood cohesion	3.19	0.76	3.47	0.67	-3.71	.000	
Neighborhood problems	2.01	0.41	1.79	0.40	4.87	.000	
Census track characteristics							
in 1990							
Percentage of families							
living in poverty	22	11	16	8	6.18	.000	
Percentage of individuals							
living in poverty	26	11	20	8	6.05	.000	
Median family income	\$24,000	6378	\$27,760	6271	-5.40	.000	
Percentage of African							
Americans	86	23	14	25	27.51	.000	
Percentage of female-							
headed households	21	6	11	5	16.84	.000	
Percentage of owner-							
occupied buildings	57	13	62	12	-3.95	.000	

In addition, Black families tend to live in economically more deprived areas than White families. According to census track characteristics in 1990, Black families are more likely than White families to reside in areas with a significantly higher proportion of poor families and poor individuals and a significantly lower median family income. Black families also tend to live in neighborhoods with a higher proportion of female-headed households and a lower percentage of owner-occupied buildings than White families. Because Hypothesis 1 is supported, the following analyses were carried out separately for Black families and White families.

PARENTAL EFFICACY, PROMOTIVE STRATEGIES, AND CHILDREN'S SUCCESS BY RACE AND FAMILY CONTEXT

Hypothesis 2 states that the positive effects of mothers' efficacy beliefs on promotive strategies and children's self-efficacy and academic success

are stronger for Black families than for White families, owing to their more adverse environmental context. The analyses in Table 2 support this hypothesis for promotive strategies and the child's academic success but not for the child's self-efficacy. The effect of parental efficacy on promotive strategies is significantly stronger for Black mothers than for White mothers ($\chi^2 = 7.23$; df = 1; p < .01), whereas its effect on the child's self-efficacy is not statistically different between the two subgroups (p = .94). Although the direct effect of parental efficacy on the child's academic success is not statistically stronger for Black families than for White families (p = .45), the parental efficacy of Black mothers has a significant direct and indirect positive effect (mediated by mother's promotive strategies and child's self-efficacy) on the child's academic success. For White mothers, by comparison, the effect of parental efficacy on the child's academic success is not significant, directly or indirectly (see Table 2).

It is surprising that parental efficacy is not predictive of promotive strategies among White mothers. However, what these mothers do is affected by context. Table 2 shows that White single mothers and mothers in weak marriages tend to engage less in promotive strategies than do White mothers in strong marriages. No such contextual effects are visible for Black mothers. Contrary to stereotypes, single Black mothers and Black mothers in weak marriages appear to be just as involved in promotive parenting strategies as Black mothers in strong marriages.³ Furthermore, the data show substantial gender variations that differ by race; Black mothers are more engaged in promotive strategies if the study child is a son rather than a daughter. The gender difference is reversed among White mothers, who are more engaged if they have a daughter rather than a son. The difference between the two coefficient estimates is statistically significant with a χ^2 value of 7.63 and 1 df(p < .01).

Overall, Black mothers who describe themselves as efficacious tend to be more involved in promotive parenting strategies than less efficacious mothers. By contrast, parental efficacy is unrelated to the promotive strategies of White mothers. Although there is no significant race difference among mothers in the extent of perceived efficacy, Black mothers are significantly more likely than White mothers to report the use of promotive strategies (t-value = 4.98, p < .001). However, these strategies are neither significantly related to adolescents' self-efficacy beliefs nor to their academic success. This is true for Black families and White families alike. Hence, Hypothesis 3 receives no support. The positive effect of mothers' promotive strategies on children's self-efficacy and academic success is not significantly stronger for Black families than for White families (p =

TABLE 2
Effects of Mother's Parental Efficacy Beliefs and Promotive Strategies on Child's Self-Efficacy and Academic Success by Race With Selected Controls; Maximum Likelihood Coefficient Estimates

		Dependent Variables											
Independent Variables	Moth Promotive		Child's Se	elf-Efficacy		Child's Academic Success							
	Direct Effects		Direct Effects		Indirect Effects		Direct Effects		Indirect Effects				
	U	S	\overline{U}	S	\overline{U}	S	\overline{U}	S	\overline{U}	S			
Black families $(n = 233)$													
Mother's parental efficacy	.31***	.33	.36**	.17	.04	.02	.26**	.14	.13**	.07			
Mother's promotive strategies	_	_	.13	.06	_	_	.02	.01	.04	.02			
Child's self-efficacy	_			_	_	_	.31***	.35	_				
Controls													
Mother's education	.01	.06	02	04	.00	.00	.06**	.13	01	01			
Total family income	.02	.07	.07	.11	.00	.00	.05	.10	.02	.04			
Single mother $(1 = yes)$.02	.02	02	01	.00	.00	07	04	00	00			
Weak marriage $(1 = yes)$	01	01	22	10	00	00	11	06	07	03			
Gender of child (1 = male)	.12**	.15	20*	11	.02	.01	24**	15	06	04			
Age of child	.04*	12	.04	.06	01	01	00	00	.01	.02			
Adjusted R^2	.14	4***	.0	4**			.23	3***					
White families $(n = 121)$													
Mother's parental efficacy	.02	.02	.34*	.17	00	00	.11	.06	.10	.05			
Mother's promotive strategies	_	_	11	05	_	_	.14	.07	03	02			
Child's self-efficacy	_			_	_	_	.29***	.30	_				

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(continued)

TABLE 2 Continued

Independent Variables		Dependent Variables											
	Moth Promotive		Child's Se	elf-Efficacy		Child's Academic Success							
	Direct Effects		Direct Effects		Indirect Effects		Direct Effects		Indirect Effec				
	U	S	\overline{U}	S	\overline{U}	S	\overline{U}	S	\overline{U}	S			
Controls													
Mother's education	.01	.03	.03	.07	00	00	.12***	.28	.01	.02			
Total family income	01	05	.08	.16	.00	.00	02	03	.02	.05			
Single mother $(1 = yes)$	23**	27	06	04	.02	.01	24	14	04	03			
Weak marriage $(1 = yes)$	15*	18	11	06	.02	.01	05	03	05	03			
Gender of child $(1 = male)$	13*	16	15	09	.01	.01	18	11	06	04			
Age of child	04	13	.01	.01	.01	.01	02	03	00	00			
Adjusted R^2	.0	.04		.03			.20	0***					

NOTE: U = unstandardized, S = standardized. p < .10. **p < .05. ***p < .01.

.33 and p = .55, respectively). In support of Hypothesis 5, children's self-efficacy beliefs are highly related to their academic success independently of race.

Hypothesis 4 states that mothers' parental efficacy beliefs exert the strongest positive effect on children's self-efficacy and academic success in Black mother-only families and in families with weak marriages. With this in mind, we repeated the analysis for Black families by family context. The White sample is too small for these kinds of analyses. The results partially support the hypothesis.

Maternal efficacy beliefs are only significantly related to the self-efficacy of children in Black single-parent households and among Black families with weak marriages. However, the coefficient estimates are not significantly stronger in these two family contexts than among Black families with strong marriages due to the small number of cases in the three subgroups and the relatively large standard errors. Likewise, the indirect effect of parental efficacy beliefs on children's academic success (mediated by mothers' promotive strategies and children's self-efficacy) is only significant for Black mothers in weak marriages and single-parent households (see Table 3). However, with the reduced sample size, the direct effect of parental efficacy on children's academic success is no longer statistically significant in any type of family context.

As in Table 2, mothers' efficacy beliefs are positively and significantly related to promotive strategies, but these strategies exert no significant effect on children's self-efficacy or academic success, with one notable exception. In strong marriages, the promotive strategies of Black mothers are negatively related to the child's academic success rather than positively as expected, although only at the .10 level of statistical significance. Children's perceived self-efficacy is significantly related to their academic success (Hypothesis 5) independently of family and environmental contexts.

DISCUSSION

This study examined the effects of parental efficacy beliefs and promotive parenting strategies on children's own sense of efficacy and academic success in low-income Philadelphia neighborhoods. As predicted by Hypothesis 1, Black mothers tend to perceive their neighborhoods as more socially isolated and dangerous and less socially integrated and supportive than do White mothers. Black families also tend to reside in more economically deprived areas. The environmental context is clearly not the

TABLE 3

Effects of Mother's Parental Efficacy Beliefs and Promotive Strategies on Child's Self-Efficacy and Academic Success Among Black Families by Family Structure; Multiple Regression Analyses With Selected Controls

Independent Variables		Dependent Variables												
	Moth Promotive		Child's S	elf-Efficacy	,	Child's Academic Success								
	Direct Effects		Direct .	Direct Effects		Indirect Effects		Direct Effects		t Effects				
	U	S	\overline{U}	S	\overline{U}	S	\overline{U}	S	U	S				
Single parent $(n = 141)$														
Mother's parental efficacy	0.25***	0.28	0.28*	0.15	0.04	0.02	0.22	0.13	0.10*	0.06				
Mother's promotive strategies	_	_	0.15	0.07	_		0.11	0.05	0.04	0.02				
Child's self-efficacy	_	_	_			_	0.23***	0.26	_	_				
Adjusted R^2	0.14	4***	0.03				0.17***							
Weak marriage $(n = 49)$														
Mother's parental efficacy	0.41***	0.43	1.10***	0.42	-0.24	-0.09	0.00	0.00	0.61**	0.29				
Mother's promotive strategies	_	_	-0.59	-0.22	_	_	0.39	0.17	-0.31	-0.14				
Child's self-efficacy	_						0.53***	0.65	_	_				
Adjusted R^2	0.11	1*	0.1	0.15**				0.40***						
Strong marriage $(n = 43)$														
Mother's parental efficacy	0.41**	0.31	0.18	0.07	0.22	0.08	0.53	0.21	-0.14	-0.05				
Mother's promotive strategies	_	_	0.53	0.27	_	_	-0.65*	-0.34	0.17	0.09				
Child's self-efficacy	_	_	_		_	_	0.33**	0.33	_					
Adjusted R^2	0.28	8***	-0.0	-0.04				0.16*						

NOTE: U = unstandardized, S = standardized.

a. Statistical controls include mother's education, total family income, and gender and age of child.

p < .10. p < .05. p < .05. p < .01.

same for each racial group. Therefore, Black mothers most likely view their children at greater risk for negative developmental pathways than do White mothers.

We hypothesized that parents with a strong sense of efficacy are most inclined to engage in promotive strategies when circumstances call for their use, such as when their children are at risk. In a dangerous environment, parents with strong efficacy beliefs should be especially active in using preventive and protective measures, thereby enhancing their children's chances for success. Consistent with Hypothesis 2, parental efficacy beliefs are more predictive of promotive strategies among Black mothers than among White mothers, and these beliefs have a stronger effect on children's academic success (but not on children's self-efficacy) in Black families than in White families.

In racially segregated neighborhoods, Black parents tend to perceive more danger than do White parents. In Black low-income neighborhoods, the dangers of drugs, gangs, violence, and crime are often more publicized than in White neighborhoods of similar economic composition. Understandably, Black mothers may believe that more protection efforts are needed to keep their children out of trouble. By contrast, White mothers may not feel such urgency. Indeed, living in socially integrated, White ethnic neighborhoods can be thought of as their primary promotive strategy. This may explain why parental efficacy beliefs are not expressed in promotive parenting strategies among White families.

Furthermore, Black mothers are more likely to employ promotive strategies when they have a son rather than a daughter, whereas the exact opposite is true for White mothers. Again, variations in neighborhood risks and the perceived need for parental control seem likely to account for these differences in parental behavior. The risks and dangers of growing up are substantial for young males in Black neighborhoods, and parents may invest extra effort in their socialization and control, more so than in the lives of their daughters. Among White families, daughters may be regarded as more at risk than sons, especially by the predominantly working-class families of this sample. Gender segregation and an ethos of female protection are pronounced in the White working class.

The effect of family context on promotive parenting strategies also varies by race. Among White families, the stronger the marriage, the more mothers tend to report being actively engaged in the use of promotive strategies with their children. In this racial group, single mothers and mothers in weak marriages are less engaged than mothers in strong marriages. This is what one would expect. Mothers who do not receive social and parenting support from a spouse, either because they are single or be-

cause the marriage is in discord, may not have enough time and energy left to promote the development of their children (e.g., Schneewind, 1995). However, no such difference appears among Black families. Single Black mothers and mothers in weak marriages engage as much in promotive parenting strategies as Black mothers in strong marriages. It may be that Black mothers are so convinced of the urgency to help their children succeed in an adverse environment that they make this task one of their highest priorities regardless of their marital situation.

Surprisingly, and contrary to Hypothesis 3, we find no evidence that promotive strategies are related to children's self-efficacy and their academic success among Black and White families. Why are parental efficacy beliefs more important for children's success than promotive parenting strategies? Compared to these strategies, parental efficacy does not measure what parents do but only what parents believe they can do, specifically, their beliefs in influencing their child's behavior and environment.

One possible explanation for this result is that parents whose children do well feel that they have control over their child and his or her environment, whereas those whose children do poorly blame the environment or the child's character for his or her problems (Goodnow & Collins, 1990; Miller, 1988, 1995). This argument is derived from attribution theory, which states that people tend to create self-serving attribution biases by taking credit for the successes they encounter and blaming failures on other people or circumstances (Bradley, 1978; Green & Gross, 1979; Riess, Rosenfeld, Melburg, & Tedeschi, 1981; Sherwood, 1981; Weiner, 1985). However, efficacy theory (Bandura, 1997) suggests that a parent's sense of efficacy enhances a child's self-efficacy and academic success by creating an atmosphere of being in control of one's fate. Efficacious parents may be viewed as role models who convey to their children that change and improvements are possible and that they can succeed even in adverse environments (Bandura, 1995; Eccles, 1983; Eccles et al., 1993; Ollendick, 1979; Schneewind, 1995; Whitbeck, 1987).

Parental efficacy beliefs are significantly related to children's self-efficacy beliefs and indirectly related to children's academic success (mediated primarily by children's self-efficacy) in those families that are most disadvantaged with regard to environmental and family contexts (Black single-parent households and Black families with weak marriages). The effects are not statistically significant for Black families in strong marriages. Thus, Hypothesis 4 is partially supported. However, the direct effect of parental efficacy on children's academic success does not reach statistical significance in any family type, probably due to the reduced sample size.

For the group of Black mothers with strong marital bonds, promotive parenting strategies are indeed significantly related to children's academic success, but the effect is negative and not positive as predicted. One possible explanation for this finding and the general lack of statistical significance of the effect of promotive strategies on children's self-efficacy and academic success may be that promotive strategies are a mixture of promoting the child's positive development on one hand and a reaction to the child's behavior problems on the other. Maybe it is in fact not really proactive prevention in what some of these parents engage but rather reactive *inter*vention, a parenting style that is common among the most challenged parents of teenagers. These parents may try to talk and work with the child, get the child involved in after-school programs and good activities, and point out the dangers that can destroy the lives of people after the child has shown signs of trouble either academically or personally. The nonsignificant findings and the negative effect of promotive strategies on children's academic success for Black families with strong marriages suggest a bidirectional model for the relation between these strategies and adolescent success. Promotive parenting strategies may indeed have a positive effect on children's self-efficacy and academic success, but at the same time, children's attitudes and behavior also influence the strategies parents employ (Eccles et al., 1993; McLeod, Kruttschnitt, & Dornfeld, 1994). The cross-sectional nature of the data makes it impossible to test this hypothesis, but future longitudinal studies may be able to examine this issue in greater depth.

Finally, Hypothesis 5 is corroborated by the data. Children's efficacy beliefs are positively and significantly related to their academic success independently of mothers' parental efficacy, promotive parenting strategies, and family and environmental contexts. This suggests that once children have developed a sense of self-efficacy, they are more likely to succeed academically even in the most adverse family and neighborhood environments, which in turn increases their future chances in life (Bandura, 1997). One way to promote a child's self-efficacy appears to be by increasing the mother's beliefs in her own efficacy as a parent.

Future studies need to explore why the relation between parental efficacy beliefs and children's self-efficacy and academic success seems to be stronger than the relation between promotive parenting strategies and these adolescent outcome measures. Perhaps efficacious parents engage in supportive behavior that is not captured by the measures of promotive parenting strategies employed in this study, such as the confidence they express in overcoming difficulties and setbacks. This sense of self may be more valuable for children's development than any amount of after-school

programs and activities. Until these questions are answered, it is not clear if parents should be encouraged to engage in more promotive strategies or conversely, if we first need to help parents to gain the necessary confidence that they can indeed improve their children's chances in life. If the latter is true, offering more after-school programs and activities for children in low-income neighborhoods without convincing parents of the programs' presumed beneficial effect on their children may impede the programs' expected success.

We used Furstenberg's (1993) qualitative study to generate some of our hypotheses and to test them with a larger quantitative data set. However, as is often the case with quantitative research, the results have generated more questions. Hence, it may be appropriate to reanalyze Furstenberg's qualitative data in light of the quantitative findings. For example, what is the meaning of promotive parenting strategies for children? Why are these strategies unrelated to children's self-efficacy beliefs and their academic success? The quantitative study asked how often parents did certain promotive activities for or with their child. However, it may be that the frequency is less important than the meaning these activities have for the child and the underlying message it conveys to them. In this regard, some activities may be more significant in promoting children's self-efficacy and academic success than others. Moreover, use of the qualitative data may enable researchers to investigate the processes that help children with efficacious mothers develop a sense of self-efficacy themselves. What exactly do efficacious mothers do to become a role model for their children and to pass their sense of efficacy on to them? How do children perceive their highly efficacious mothers, and conversely, how do children perceive mothers who are low on parental efficacy? Finally, the qualitative data may shed further light on the relationship between parenting practices and neighborhood contexts.

It is not clear how generalizable these results are to other areas. It may be that families in rural areas and in more affluent urban neighborhoods behave more like the White families than the Black families in this sample regardless of their racial and ethnic background. It is also likely that White parents who live in anomic neighborhoods are more similar to the Black families in this study than to White parents who live in socially integrated neighborhoods. That is, parental efficacy may have a significant effect on promotive strategies primarily when children are most at risk, although parental efficacy per se seems to have an overall beneficial effect on adolescents' self-efficacy and academic success independent of their specific circumstances. Subsequent research in areas other than racially segregated, high-risk, inner-city neighborhoods will need to explore these issues further.

APPENDIX
Correlation Matrix for Black Families (*n* = 233) and White Families (*n* = 121)

Variables	1	2	3	4	5	6	7	8	9	10	M	SD
1. Mother's parenting efficacy		.34***	.20***	.24***	.04	.06	03	08	07	17***	* 3.25	0.42
2. Mother's promotive strategies	.10		.10	.10	.10	.10	02	05	.13**	20***	* 2.13	0.40
3. Child's self-efficacy	.21**	01		.41***	.01	.10	.02	08	12*	.02	5.17	0.90
4. Child's academic competence	.20**	.13	.37***		.19***	.20***	04	04	20***	02	-0.02	0.80
5. Mother's education	.09	.05	.15	.33***		.35***	09	.06	07	12*	12.78	0.85
6. Total family income	.13	.01	.21**	.18**	.36***		34***	.19***	.00	.02	3.46	1.50
7. Single mother $(1 = yes)$	18**	13	11	16*	05	52***		64***	05	00	0.61	0.49
8. Low marital quality (1 = yes)	02	06	01	01	13	.22**	49***		03	.11*	0.21	0.41
9. Gender of child (1 = male)	18**	14	08	13	.05	.11	11	09		11	0.44	0.50
10. Age of child	08	15*	.03	08	11	.26***	08	.02	.12		12.54	0.31
M	3.19	1.91	5.25	0.10	12.43	4.50	0.32	0.33	0.54	12.64		
SD	0.41	0.40	0.82	0.78	1.86	1.66	0.47	0.47	0.50	1.23		

NOTE: Correlations for Black families appear above the diagonal; correlations for White families appear below the diagonal. $*p \le .10. **p \le .05. ***p \le .01.$

NOTES

- 1. Cronbach's alpha may in fact not be the right measure to determine the reliability of this scale. For example, to engage in proactive prevention, it is not required that parents get their children involved in good activities in the neighborhood and also in good activities outside the neighborhood. Either activity could be considered a proactive prevention.
- 2. PRELIS 2.20 performs a test of multivariate normality for continuous variables. The hypothesis that the continuous variables in the model follow a multivariate distribution cannot be rejected for the Black families ($\chi^2 = 5.38$; p = .07) or the White families ($\chi^2 = 5.29$; p = .07) in the sample.
- 3. Ten of the 39 White single mothers and 23 of the 141 Black single mothers live with a partner. However, the results of all analyses basically remain the same if mothers in these live-in partnerships are treated as married rather than single.

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