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Community-Based Mental Health and Behavioral Programs for Low-Income Urban Youth: A Meta-Analytic Review

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A meta-analytic review of 33 studies and 41 independent samples was conducted of the effectiveness of community-based mental health and behavioral programs for low-income urban youth. Findings indicated positive effects, with an overall mean effect of 0.25 at post-test. While this is comparable to previous meta-analytic intervention research with more diverse samples, it stands in contrast to findings of the school-based review (0.08 at post-test) focused on this population. The current review found type of intervention to significantly moderate effects, with effects highest for programs that were environmentally based. In fact, effect sizes for programs that did not target the environment were not significant. Findings are discussed with an emphasis on environmental influences, including the differing contexts affecting school- versus community-based interventions conducted with low-income, urban youth.

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Poverty rates for African American and Latino youth are two to two and a half times those for European American youth (U.S. Bureau of the Census, 2011). As highlighted by Farahmand, Grant, Polo, Duffy, and DuBois (2011), as a result of these disproportionate poverty rates, youth of color are also more likely to experience disproportionate rates of stressors associated with poverty, such as lack of resources (e.g., employment, housing; U.S. Department of Health & Human Services, 2001), major life events (e.g., child abuse, divorce), chronic interpersonal stressors (e.g., family conflict), daily hassles (e.g., lack of money for transportation; Conger, Ge, Elder, Lorenz, & Simons, 1994), and increased exposure to crime and violence (e.g., Bell & Jenkins, 1994). Given that traumatic and stressful experiences have been established as risk factors for a range of psychological problems (e.g., Grant et al., 2003), it is clear that low-income urban youth are more likely to experience psychological problems (Grant et al., 2004). Although low-income urban youth are at higher risk for the development of psychological problems, they are less likely to receive help (Farmer, Stangl, Burns, Costello, &

Angold, 1999; Garland et al., 2005). Furthermore, for the low-income urban youth who are reached and provided with services, little is known about the efficacy of the services that are provided.

Only one study, to date, has examined the efficacy of mental health and behavioral interventions delivered to low-income urban youth. Farahmand et al. (2011) conducted a narrative and meta-analytic review of school-based interventions conducted with low-income urban youth and compared the results of that review with a review of school-based interventions with the broader population of adolescents (Rones & Hoagwood, 2000). Results of that comparison were striking. Using the narrative approach implemented in the earlier analysis (Rones & Hoagwood, 2000), 17% of the interventions conducted with low-income urban youth were classified as effective relative to 36% for those conducted with the broader population; 28% of the interventions conducted with low-income urban youth were classified as mixed effective and ineffective relative to 36% for those conducted with the broader population; and 55% of the interventions conducted with low-income urban youth were classified as ineffective relative to 28% for those conducted with the broader population (Farahmand et al., 2011). Thus, roughly half as many programs implemented with low-income urban youth were classified as effective, and roughly twice as many were classified as ineffective compared with those implemented with the broader population of youth.

Meta-analytic results revealed similar findings, with a very small overall effect size for primary outcomes of 0.08 at post-test and 0.06 at follow-up (Farahmand et al., 2011). The 95% confidence interval for post-test was −0.01 to 0.17 and at follow-up −0.07 to 0.20, indicating the true effect may lie in the negative range. Although a meta-analysis comparable in scope has not been conducted with the broader population of youth, these effects fall well below the medium to large effect sizes that have been reported for prevention programs administered to the general population of children and adolescents (Durlak & Wells, 1997), school-based prevention and intervention programs targeting youth from all backgrounds with established mental health problems (Reddy, Newman, Thomas, & Chun, 2009), and psychotherapy interventions administered to young people of all backgrounds seeking treatment (Weisz, Weiss, Han, Granger, & Morton, 1995).

Farahmand et al. (2011) examined numerous moderators of their findings in an effort to determine what variables might be driving the negligible effects. Two emerged as significant when controlling for all others. These were the target of the intervention and the level at which it was delivered. In particular, interventions targeting externalizing problems (e.g., conduct disorder) were more likely to have insignificant or negative effects, whereas interventions targeting internalizing problems (e.g., depression) were more likely to have significant positive effects. In addition, interventions delivered at the universal level (i.e., to all adolescents in a given setting) had more significant and positive effects than those delivered to youth already displaying problem behaviors (Farahmand et al., 2011). When these two significant moderators were examined in conjunction with one another, results revealed that universal interventions targeting internalizing symptoms had the largest and most positive effect size, whereas selected interventions targeting externalizing problems had an effect size in the negative range (with universal interventions targeting externalizing problems and selected interventions targeting internalizing symptoms falling in between; Farahmand et al., 2011). Taken together, target and level of intervention explained most of the variance in effect sizes in Farahmand and colleagues' (2011) quantitative review.

The purpose of this meta-analytic review is to extend Farahmand and colleagues' (2011) meta-analysis by systematically examining a broader range of mental health services and programs implemented with low-income urban youth to determine the extent to which their findings apply outside the school setting. In this meta-analysis, community-based programs were examined. In addition, we included a broader range of studies (e.g., dissertations) to cast the broadest net possible.

We chose to replicate Farahmand and colleagues' (2011) approach and reviewed interventions that targeted a spectrum of disorders for several reasons: (a) this allowed us to compare our findings with theirs; (b) low-income urban youth have been shown to be at heightened risk for a range of psychological problems (Grant et al., 2004); (c) a number of community-based interventions target multiple outcomes (see review

below); and (d) there is a growing trend in intervention research to develop interventions that simultaneously target a range of psychological problems (McHugh, Murray, & Barlow, 2009).

The current review addresses two primary questions in an effort to inform best practices for mental health services and program implementation for low-income urban youth: (1) How effective have community-based mental health and behavioral programs been in promoting positive outcomes for low-income urban youth? More specifically, to what extent have these programs had a favorable impact on outcomes for low-income urban youth and to what extent are impacts sustained over time? (2) What factors (e.g., sample and program characteristics) influence the effectiveness of community-based mental health and behavioral programs for low-income urban youth? To apply the most rigorous approach to answering these questions, we conducted a meta-analysis of all studies that met our inclusion criteria and provided data necessary to calculate effect sizes (see Table 1).

METHOD

Essential steps in carrying out any meta-analysis include the following: (a) determining study inclusion and exclusion criteria; (b) executing a comprehensive search for eligible studies; (c) coding study characteristics and effect size information; (d) computing an overall (average) effect size that takes into account findings from all studies as well as an estimate of the degree to which effect size varies across studies; and (e) assuming there is significant variation in effect sizes, conducting moderator analyses to investigate study characteristics that may be associated with and thus account for this variation (Cooper, 2010; Lipsey & Wilson, 2001). Study inclusion, exclusion, and search criteria, along with coding procedures related to steps a through c, are described in detail later. Meta-analytic procedures related to steps d and e can be found in detail in Farahmand and colleagues' (2011) review.

Inclusion Criteria

This study focused on community-based mental health and behavioral programs for school-aged youth, published between the years 1975 and 2010 and reported in the English language. Studies were eligible for inclusion if they evaluated an intervention that took place entirely, or in significant part, in one or more community settings, such as a clinic, a community-based organization, or participants' homes. To build upon and not replicate Farahmand and colleagues' (2011) review, studies of interventions based on schools were excluded if the intervention was focused solely on the school environment or was delivered entirely during the regular school day. School-based interventions were included, however, if they included activities targeting the youth's environment outside the school setting or were delivered in significant part outside of normal school hours. For example, a study evaluating an intervention that included a school-based curriculum in combination with parenting classes was eligible for inclusion regardless of whether the parenting classes took place at the school or not. Similarly, evaluations of after-school programs were included regardless of whether the program took place at or away from a school site. For studies to be eligible for inclusion, interventions also had to have mental health and/or behavioral targets. Consequently, programs designed to influence only academic achievement (e.g., reading interventions) were excluded; however, academic-related outcomes (i.e., grades, academic achievement) when otherwise assessed by eligible studies were included as mental health and behavioral difficulties are strongly linked with academic outcomes (e.g., Walker, Kerns, Lyon, Bruns, & Cosgrove, 2010).

Studies also had to be conducted with a low-income urban sample of youth in the United States. Studies needed to include a control group that received no intervention, a placebo, intervention as usual, or were waitlisted. For studies with random assignment to condition, those reporting outcomes at both pre- and post-test as well as those reporting outcomes only at post-test were included. For nonrandomized studies, only the former type of studies was included. Details of inclusion criteria as well as specific decision-making procedures are described elsewhere (see Farahmand et al., 2011 review).

Literature Search

The literature search included a computerized search of the PsycINFO database for potentially relevant studies, including dissertations. In an effort to locate articles focused on evaluations of interventions relevant to the focus of our review, we searched for studies with key

Table 1. Overview of evaluations of community-based mental health and behavioral programs for low-income urban youth included in meta-analysis

Study	Description of Intervention	Methodology (a) Tx Group N/ Control Group N (b) Design (c) Type of Assignment (d) Unit of Assignment (e) Nature of Control	Sample (a) Average Age (b) Sex (%F) (c) Ethnic Composition (d) Type of Population	Program Features (a) Focus of Intervention (b) Delivery Agent (c) Type of Intervention	Effect Sizes (G): Overall and by Outcome Category
Aseltine, Dupre, and Lamlein (2000)	Across Ages: Intergenerational approach to drug and alcohol prevention that consists of three components: (a) one-on-one mentoring program in which youths are matched with older adults who provide ongoing support and encouragement in weekly interactions; (b) community service activities designed to promote involvement with and better understanding of the frail elderly, with 10–12 visits during the school year; (c) a school-based life skills curriculum divided into 27 lessons taught once or twice a week over the course of school year.	85/138 Pre-post Random Clustered No intervention	12 years %F not specified Ethnicity not specified Universal	Alcohol/substance Researcher Person plus environment	Overall: 0.08 Psychological: 0.27 School: 0.12 Antisocial behavior: −0.25 Interpersonal: 0.30 Community/prosocial: 0.27
August, Bloomquist, Lee, Realmuto, and Hektner (2006)	Early Risers: Conduct problems prevention program consisting of two components delivered in tandem over 2-year period: (a) child component includes three coordinated interventions that are designed to enhance socio-emotional skills, promote literacy acquisition and literature appreciation, and provide opportunities for personal growth through creative expression, fitness, and cultural–experiential activities; and (b) family component consisting of parenting education/skills training and family support services.	208/86 Pre-post Random Individual No intervention	6 years 27%F 79% African American; 11% European American; and 10% Other Universal	Broad Social/ Emotional/Behavioral Researcher Person plus environment	Overall: 0.01 School: −0.03 Antisocial Behavior: 0.04 Interpersonal: 0.04
Barnet, Duggan, DeVoe, and Burrell (2002)	Fifteen-month home visitation program for adolescent parenting using the Parent Aides Nurturing and Developing With Adolescents Curriculum delivered by volunteers in 90-minute weekly visits with the teenager; intervention included teaching and modeling nurturing parenting behaviors, encouraging teen to continue with her education, general assessments of health and social problems, and referrals for early intervention when necessary.	77/70 Pre-post Random Individual Intervention as usual	16 years 100%F 98% African American; 2% Ethnicity not specified Targeted	Family Usual care Person plus environment	Overall: 0.15 Psychological: −0.18 Interpersonal: 0.23
Barnet, Liu, DeVoe, Alperovitz-Bichell, and Duggan (2007)	Trained home visitors recruited from local communities were paired with pregnant adolescents to provide services. They delivered a parenting curriculum, encouraged contraceptive use, connected the teen with primary care, and promoted school continuation. Home visitation started in the third trimester and was planned to occur biweekly for the first year of the child's life and then monthly until the child's second birthday.	32/26 Pre-post Random Individual Intervention as usual	17 years Not specified 91% African American; 9% Ethnicity not specified Targeted	Family Usual care Person plus environment	Overall/interpersonal: 0.54

(continued)

Table 1. (continued)

Study	Description of Intervention	Methodology (a) Tx Group N/ Control Group N (b) Design (c) Type of Assignment (d) Unit of Assignment (e) Nature of Control	Sample (a) Average Age (b) Sex (%F) (c) Ethnic Composition (d) Type of Population	Program Features (a) Focus of Intervention (b) Delivery Agent (c) Type of Intervention	Effect Sizes (G): Overall and by Outcome Category
Black et al. (2006)	Home-based intervention curriculum based on social-cognitive theory and focused on interpersonal negotiation skills, adolescent development, and parenting. The curriculum was delivered biweekly until the infant's first birthday by college-educated, black single mothers who served as mentors, presenting themselves as "big sisters."	87/94 Pre-post Random Individual No intervention	16 years 100%F 100% African American Targeted	Family Researcher Person-only	Overall/physical health: 0.35
Cheng et al. (2008)	Mentor-implemented violence prevention intervention focused on reducing aggression, fighting, and reinjury among assault-injured youths. Program consists of nine sessions over a 9-month period.	56/57 Pre-post Random Individual Placebo	13 years 33%F Ethnicity not specified Targeted	Externalizing Mixed Person plus environment	Overall/antisocial behavior: −0.01
Cherniss and Herzog (1996)	Home-based family therapy with high-risk, urban, disadvantaged teenage mothers and their children. They received case management and supportive counseling or these services plus family therapy focusing on communication, roles, and intergenerational family patterns. 51 sessions over 10.4 months.	58/57 Pre-post Random Individual Intervention as usual	17 years 100%F 56% African American 27% Latino; 17% European American Targeted	Family Usual care Person plus environment	Overall (Time1/Time2): 0.22/−0.08 School (Time1/Time2): 0.00/0.08 Interpersonal (Time1/Time2): 0.22/−0.21 Physical health (Time1/Time2): 0.34/0.18
Christopher and Roosa (1990) Success Express	A six-session program for middle school–aged children designed to reduce premarital sexual activity among low-income inner-city minority youth by promoting premarital sexual abstinence. Sessions focused on self-esteem, family values, patterns of growth and development, pressure, communication, and goal setting. Weekly 45-minute sessions.	191/129 Pre-post Nonrandom Clustered Waitlist	13 years 57%F 21% African American; 69% Latino; 8% European American; 2% Other Universal	Sexual health Researcher Person-only	Overall/physical health: −0.24
Dancy et al. (2006)	Mother/Daughter HIV Risk Reduction: Trains mothers to be their daughters' primary HIV educators. The mediating variables were daughters' HIV transmission knowledge, self-efficacy, and intention to refuse sex. Eighteen 120-minute sessions held weekly for 4.5 months.	121/69 Pre-post Random Clustered Placebo	12 years 100%F 100% African American Universal	Sexual health Mixed Person plus environment	Overall: 0.41 Psychological: 0.27 Physical Health: 0.45
Diamond et al. (2002) Attachment-based family therapy	Attachment-based family therapy for depressed adolescents. 12-session treatment manualized therapy that focuses on five treatment tasks: (a) relational reframe; (b) alliance building; (c) parent education; (d) reattachment; and (e) promoting competency. Twelve 90-minute weekly sessions for 12 weeks.	16/16 Pre-post Random Individual Waitlist	15 years 78%F 69% African American; 31% European American Targeted	Internalizing Researcher Person-only	Overall: 0.48 Psychological: 0.71 Antisocial behavior: 0.20 Interpersonal: 0.20

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DuBois, Neville, Parra, and Pugh-Lilly (2002) Big Brother/Big Sister	Big Brothers Big Sisters Community-Based Mentoring Program: Designed to provide youth with one-on-one mentoring relationships in which adult volunteers serve as role modelsto youth and assist in their personal development; mentors were expected to spend 3–6 hours per week with youth and maintain relationships for at least 1 year.	63/65 Pre-post Nonrandom Individual No intervention	10 years 55%F 62.7% African American; 37.3% European American Universal	General social/ emotional/behavioral Usual care Person only	Overall: 0.02 Psychological: −0.03 Interpersonal: 0.21
Friedman et al. (2002) Botvin Life Skills Training (LST); Prothrow-Smith Anti-Violence (A.V.); Values Certification (V.C.)	Drug prevention/early intervention program conducted for court-referred adolescent males in a residential treatment facility. The special program consisted of three different modalities: LST model, A.V. model, and V.C. procedure. The intervention strategies included cognitive-behavioral social learning model for understanding the effects of drugs and alcohol on health and behavior, how to cope with temptations, controlling tendencies toward violence, controlling emotions, and exploring one's values. Fifty-five 55-minute sessions held daily.	Follow-up T1 110/91 Pre-Post Random Individual Intervention as usual	16 years 0%F 75% African American, 8% Latino, 15% European American, 2% Asian Targeted	Alcohol/substance usual care Person only	Overall (follow-up): −0.08 School (follow-up): 0.13 Antisocial behavior (follow-up): −0.26
Green (2010) SquashSmarts	An academic sports mentoring after-school program. Students participate in the program three times per week, during which they receive one-on-one homework help and coaching to learn the game of squash. 90-minute sessions were held for 8 months.	36/37 Pre-post Nonrandom Individual No intervention	12 years 42%F 47% African American; 35% Latino; 8% Asian; 10% Other Universal	General social/ emotional/behavioral Usual care Person only	Overall: −0.07 School: −0.08 Antisocial behavior: −0.05
Hanlon, Bateman, Simon, O'Grady, and Carswell (2002)	An early community-based intervention for the prevention of substance abuse and other delinquent behavior. Mentoring was implemented by a structured group approach employing young African American college students. Twenty 55-minute group mentoring sessions were conducted 4–5 days/week after school.	235/193 Pre-post Random Clustered Intervention as usual	13 years 41%F 97% African American; 3% European American Targeted	Externalizing Usual care Person plus environment	Overall (antisocial behavior): 0.57
Huston et al. (2001) New Hope Project	New Hope Project (NHP) is an antipoverty program focused on family functioning and developmental outcomes for preschool- and school-aged children (only school age was reviewed). NHP offered wage supplements to raise family income above the poverty threshold, subsidies for child care, and health insurance to employed adults. Evaluation occurred after 2 years.	Boys: 121/120 Girls: 120/119 Pre-post Random Individual No intervention	Age not specified 89.8%F 55.1% African American; 29.2% Latino; 12.5% European American; 3.2% Other Targeted	Family Mixed Environment only	Overall—boys: 0.10 Antisocial behavior—boys: −0.22 Community/prosocial—boys: 0.26 Overall—girls: 0.03 Antisocial behavior—girls: 0.19 Community/prosocial—girls: −0.05
Jurbergs (2000)	Teacher-administered feedback through the use of a behavior note relative to an identical school–home note for increasing classwork completion and appropriate classroom behavior in minority elementary school children with ADHD. Daily sessions for 1.25 months.	14/16 Pre-post Random Individual No intervention	7 years 26%F 100% African American Targeted	Externalizing Usual care Person plus environment	Overall: 1.19 Psychological: 0.85 School: 1.52

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Komro et al. (2006) Slick Tracy Home Team Program	Adapted alcohol use preventive intervention for urban, low-income, and multiethnic settings. Students beginning in 6th grade received 3 years of intervention strategies (curricula, family interventions, youth-led community service projects, community organizing). 45-minute weekly sessions were held.	1,589/2,034 Pre-post Random Clustered No intervention	12 years 50%F 43% African American; 29% Latino; 12% European American; 16% Other Universal	Alcohol/substance Usual care Person plus environment	Overall: −0.12 Antisocial behavior: 0.15 Interpersonal: −0.79
Lang, Waterman, and Baker (2009) Computeen	Computeen is an innovative technology and psychosocial skills mentoring program. The program was designed to improve self-esteem and educational aspirations while reducing behavior problems. Computeen combines computer and technology in hardware and software skills with projects and discussions about psychosocial factors relevant to at-risk youth, such as community violence, gangs, racism, educational options, and family problems. There are 16 120-minute weekly sessions for 4 months.	25/21 Pre-post Random Clustered Waitlist	14 years 44%F 5% African American; 89% Latino; 2% European American; 4% Other Universal	General social/ emotional/behavioral Researcher Person only	Overall: 0.13 Psychological: 0.45 School: −0.05 Antisocial behavior: −0.18
LoSciuto et al. (1996) Across Ages	Across Ages is a comprehensive, intergenerational mentoring approach to drug prevention for high-risk middle school students. Older adults (55+) were involved as mentors to the students. Older mentors help children develop the awareness, self-confidence, and skills they need to resist drugs and overcome overwhelming obstacles. The project also engages students in community service activities that benefit frail elders, provides a classroom-based life skills curriculum, and offers workshops to parents. 216 sessions for 27 months.	180/189 Pre-post Random Clustered No intervention	12 years 53%F 52% African American; 9% Latino; 16% European American; 9% Asian; 14% Other Universal	Alcohol/substance Mixed Person plus environment	Overall: 0.24 Psychological: 0.20 Antisocial behavior: 0.21 Community/prosocial: 0.26
Mason and Chuang (2001) Kuumba Kids	A preventive after-school culturally based arts program. The Kuumba Kids program was led by African American artists who engage children in drama and dance activities to assist in the development of self-esteem, noncompetitive creativity, and creative problem solving. Cultural awareness, cultural pride, and cultural history are key components and are specifically integrated into the Kuumba arts training curriculum. Sixteen 120-minute weekly sessions for 4 months.	Male group: 11/10 Female group: 6/6 Pre-post Nonrandom Individual No intervention	8 years Male: 0%F Female: 100%F 98% African American; 2% European American Universal	General social/ emotional/behavioral Usual care Person only	Overall—boys: 0.70 Psychological—boys: 0.54 School—boys: 0.37 Interpersonal—boys: 1.06 Overall—girls: 0.46 Psychological—girls: 0.39 School—girls: −0.11 Interpersonal—girls: 0.70
McBride et al. (2007) Collaborative HIV/AIDS Adolescent Mental Health Project (CHAMP)	CHAMP is a family-based HIV preventive intervention aimed at decreasing HIV/AIDS risk exposure during the transition to adolescence. The program involves having youth participate with parents and/or other adult caregivers who can steer them through pubertal changes, increases in romantic thoughts and feelings, and social pressure to engage in risky behavior. Twelve 65-minute weekly sessions for 3 months.	201/264 Pre-post Nonrandom Clustered No intervention	10 years 58%F 100% African American Universal	Sexual health Usual care Person plus environment	Overall: 0.46 Interpersonal: 0.65 Physical health: 0.03

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McClowry, Snow, and Tamis-LeMonda (2005) INSIGHTS into Children's Temperament	The teacher/parent component of the INSIGHTS program is a 2-hour, 10-session curriculum including videotaped vignettes, role-playing, discussion, and assignments. Parents and teachers are taught to implement temperament-based behavior management strategies according to the developmental needs of children. The child version is a weekly 1-hour intervention focused on problem solving.	91/57 Pre-post Random Clustered Placebo	7 years 34%F 89% African American; 9% Latino; 2% Mixed/Not specified Universal	General social/ emotional/behavioral Researcher Person plus environment	Overall (antisocial behavior): 0.61
Metropolitan Area Child Study Research Group (MACS, 2002) MACS Intervention; Yes I Can Curriculum	MACS: multi-year, multi-context aggression prevention intervention that was provided during the early (grades 2–3) or late (grades 5–6) school years. There were three components: (a) a general enhancement classroom intervention that included a 2-year program providing teacher consultation and a 40-lesson, social-cognitive curriculum to all children in the classroom; (b) a 2-year, small-group training for high-risk aggressive children provided by the teachers; (c) a 1-year family intervention.	Early levels: 120/118 Late levels: 49/51 Pre-post Random Clustered No intervention	Early: 8 Late: 11 39%F 48% African American; 37% Latino; 15% European American Targeted	Externalizing Mix Person plus environment	Overall—early: 0.19 School—early: 0.80 Antisocial behavior—early: −0.42 Overall—late: −0.20 School—late: −0.13 Antisocial behavior—late: −0.27
Myers et al. (1992) Effective Black Parenting Program (EBPP)	EBPP is a culturally adapted, cognitive-behavioral parenting skill training program. The EBPP teaches a variety of behavioral child management skills through a sequenced training approach that was adapted from the Confident Parenting Program. Two child-rearing strategies are taught: A Family Rule Guideline Strategy and A Thinking Parents' Approach. Fifteen 180-minute sessions for 3.75 months.	Cohort 1: 64/28 Cohort 2: 45/36 Pre-post Nonrandom Clustered No intervention	7 years Boys-Cohort 1: 0%F Girls-Cohort 1: 100%F Boys-Cohort 2: 0%F Girls-Cohort 2: 100%F 100% African American Universal	Family Researcher Only environmental	Overall/psychological (boys, Cohort 1): 0.68 Overall (girls, Cohort 1): 0.89 Psychological (girls, Cohort 1): 0.66 Physical health (girls, Cohort 1): 1.11 Overall/antisocial behavior (boys, Cohort 2): 1.01 Overall (girls, Cohort 2): 0.53 Antisocial behavior (girls, Cohort 2): 0.20 Interpersonal (girls, Cohort 2): 0.86
Newman (1999) Multi-caregiver Psycho-educational Therapy (MCPT)	MCPT was used as a primary treatment method for ADHD. Skills targeted were improvement in impulse control and attentional skills. Twenty-three 75-minute sessions held for 5.75 months.	8/9 Pre-post Random Individual Intervention as usual	8 years 90%F 29% African American; 71% Latino Targeted	Externalizing Researcher Only environmental	Overall: 0.05 Psychological: −0.34 Antisocial behavior: 0.12 Interpersonal: 0.76

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Table 1. (continued)

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O'Donnell, Hawkins, Catalano, Abbott, and Day (1995) Seattle Social Development Project	A 6-year school-based program that provides classroom teacher practices, parent training, and child social skills training to prevent school failure, drug abuse, and delinquency. Structure: 32 sessions held daily for 54 weeks.	Female: 27/30 Male: 17/32 Pre-post Random Clustered No intervention	10 years Female: 100%F Male: 0% F 42% African American; 24% Caucasian; 27% Asian; 9% Other Universal	Externalizing Usual care Person plus environment	Overall—girls: 0.20 School—girls: 0.41 Antisocial behavior—girls: 0.19 Interpersonal—girls: 0.06 Community/prosocial—girls: 0.19 Overall—boys: 0.21 School—boys: 0.63 Antisocial behavior—boys: 0.13 Interpersonal—boys: 0.15 Community/prosocial—Boys: −0.41
Royse (1998) Brothers Project	Four-year mentoring project developed specifically for African American adolescents. Healthy adult role models helped these adolescents do well in school, avoid drug use and trouble with the law, and become productive, self-sustaining members of society. Weekly sessions were held.	21/25 Pre-post Random Individual No intervention	14 years Sex not specified 100% African American Targeted	General social/ emotional/behavioral Usual care Person only	Overall (post/follow-up): 0.07/0.22 Psychological (post/follow-up): 0.10/0.56 School (post): 0.10 Antisocial behavior (post/ follow-up): 0.02/0.11
Sheehan et al. (1999) Cabrini Green Youth Program Mentoring (CGYP)	CGYP is an 18-month inner-city peer-mentoring program in modifying the attitudes and behaviors involving violence of preadolescent mentees. The adolescent mentors designed lessons to teach younger children about violence prevention. Information was provided through skits, games, and rap music.	75/35 Pre-post Nonrandom Individual No intervention	10 years Sex not specified 100% African American Universal	Externalizing Usual care Person plus environment	Overall/antisocial behavior: 0.92
Solomon and Liefeld (1998) Family Growth Center (FGC)	The FGC promotes the health and development of first-time adolescent mothers and their children using the family support center approach. Objectives include the following: providing social support, teaching, helping them with parenting tasks, fostering the health, and development of both mothers and their babies, and promoting maternal educational accomplishments, within a family and neighborhood context. FGC is a 24-month project.	34/29 Pre-post Nonrandom Individual No intervention	17 years 100%F Ethnicity not specified Targeted	Family Usual care Person plus environment	Overall: 0.60 School: 0.63 Physical health: 0.57
Stanton et al. (2000) Informed Parents and Children Together (ImPACT)	ImPACT seeks to increase monitoring (supervision and communication) by parents and guardians of African American youth regarding high-risk and protective behaviors. 90-minute sessions for 2 months.	119/118 Pre-post Random Individual Placebo	13 years 49%F Ethnicity not specified Universal	Family Researcher Person plus environment	Overall/interpersonal (post/ follow-up): −0.31/0.02

(continued)

Table 1. (continued)

Study	Description of Intervention	Methodology (a) Tx Group N/ Control Group N (b) Design (c) Type of Assignment (d) Unit of Assignment (e) Nature of Control	Sample (a) Average Age (b) Sex (%F) (c) Ethnic Composition (d) Type of Population	Program Features (a) Focus of Intervention (b) Delivery Agent (c) Type of Intervention	Effect Sizes (G): Overall and by Outcome Category
Tolan et al. (2004) SAFEChildren	SAFEChildren is based on a developmental–ecological perspective emphasizing developmental risk factors. It is a 22-week program that includes multiple family groups focused on parenting skills, family relationships, managing family and neighborhood challenges, strategies for engaging with schools, and other strategies. It also includes a phonics-based reading tutoring program.	243/199 Pre-post Random Individual No intervention	6 years 49%F 58% Latino; 42% African American Universal	Externalizing Researcher Person plus environment	Overall (post/follow-up): −0.01/0.02 Psychological (post/follow-up): −0.11/0.01 School (post/follow-up): −0.04/0.05 Antisocial behavior (post/follow-up): −0.14/−0.05 Interpersonal (post/follow-up): 0.02/0.01
Weiss et al. (2003) Reaching Educators, Children & Parents (RECAP)	RECAP is a program for children with concurrent internalizing and externalizing problems. The program includes (a) coping skills training, (b) problem-solving skills training, and (c) parent training. It is unclear how many sessions were provided and the duration of these sessions.	31/31 Pre-post Random Individual No intervention	10 years 37%F 56% African American; 38% European American; 6% Not specified Targeted	General social/ emotional/behavioral Researcher Person plus environment	Overall (post/follow-up): 0.14/0.27 Psychological (post/follow-up): 0.11/0.59 School (post): −0.18 Antisocial behavior (post/follow-up): 0.20/0.04 Interpersonal (post): 0.36
Werch et al. (2000) Start Taking Alcohol Risk Seriously (STARS)	STARS for Families program is a 2-year stage-based intervention using nurse consultations and parent prevention materials. Youth received a brief one-on-one health consultation provided by a nurse about why and how the child should avoid alcohol use during the semester. Students received prevention messages addressing specific stages status and risk/protective factors of individual youth. Fifteen 20-minute sessions were held for 9 months.	Neighborhood: 97/100 Magnet: 157/161 Pre-post Random Individual Placebo	Age not specified 50%F 85% African American; 12% Caucasian; 3% Other Universal	Alcohol/substance Usual care Person plus environment	Overall (antisocial behavior)—neighborhood school: 0.15 Overall (antisocial behavior)—magnet school: 0.28

words including prevention, treatment, intervention, randomized control trial, RTC, programs, curriculum, efficacy, evaluation, adolescent, child, low-income/ SES, poverty, urban, inner-city. As in Farahmand and colleagues' (2011) review, we supplemented this search with several manual search strategies, including review of citations within identified articles as well as reference lists of prior reviews. All articles that were identified as eligible were reviewed by at least two additional researchers who independently evaluated the eligibility of the study. Disagreements regarding eligibility were resolved using group consensus.

Study Coding

A total of 33 studies, evaluating outcomes across 41 independent samples, were included in the current review. Eligible studies were coded by three clinical psychology doctoral students, who are also the first three coauthors of this article, and all of whom are experienced in community-based research with low-income urban youth. Each study was independently coded by each of these coders, followed by resolution of discrepancies via group discussion and consensus. Coders were trained and supervised by two of the study coauthors, Grant and DuBuois, both of whom are doctoral-level psychologists. Along with information necessary for effect size computation, the following report, methodological, sample, program characteristics, and outcome categories were coded.

Report Characteristics. Each study was coded on a number of characteristics related to the report, including the following: (a) authors, (b) year of publication, (c) title of article, (d) journal of publication (if applicable), and (e) type of report (e.g., dissertation, journal article, unpublished manuscript).

Methodological Characteristics. The following methodological characteristics of studies were coded: (a) "design" of study (pre-post with control or post-only with control), (b) "type of assignment" (randomized or nonrandomized), (c) "type of control" (waitlist, placebo, no intervention, or intervention as usual), and (d) "unit of assignment" (individual or clustered—e.g., neighborhoods). Only three studies in the current review had a waitlist control; therefore, these were treated as no-intervention controls for the purpose of analyses. Furthermore, only two studies included a post-only design; therefore, design was not included in analyses.

Sample Characteristics. (a) "Age" was coded using the average age of participants and also expected grade level: elementary (ages 5 through 10), middle school (ages 11 through 13), or high school (ages 14 through 18). (b) "Sex" was coded using the percent of males and females in the sample. (c) The "ethnic composition" of the study sample was categorized as predominantly (75% or more) African American, predominantly Latino, or mixed (in which no one ethnic group was predominant). There were no samples that predominantly comprised European American youth or those belonging to any other race/ethnicity. (d) Studies were categorized based on the level of the intervention and were labeled selected if delivered to youth selected on the basis of symptoms, disorders, or behaviors pertinent to the intervention. If there were no such inclusion criteria, the program was coded as universal. (e) The target problem was coded as (i) internalizing (e.g., depression), (ii) externalizing (e.g., conduct problems), (iii) general socio-emotional/ behavioral (e.g., mix of internalizing/externalizing symptoms, self-esteem, mentoring) (iv) alcohol/substance use and/or abuse, (v) family (e.g., parenting, income subsidies), or (vi) sexual health (e.g., HIV risk reduction). Only one study had an internalizing focus (i.e., depression; Diamond, Reis, Diamond, Siqueland, & Isaacs, 2002). For analyses, this study was included in the family-focused programs, given the study was attachment-based family therapy. Furthermore, only three studies had a sexual health focus (Christopher & Roosa, 1990; Dancy, Crittenden, & Talashek, 2006; McBride et al., 2007); therefore, these studies were combined with the externalizing focused studies, given these programs relate to sexual acting-out behaviors. (f) Four types of possible risk factors were coded if they were reported for at least 50% of the sample: (i) individual risk (e.g., learning difficulties), (ii) contextual risk (e.g., neighborhood violence), (iii) processual risk (e.g., low parental monitoring), and (iv) historical risk (e.g., foster care). Only individual and processual risk factors were included in analyses, however, because of a lack of variability for historical risk (not enough stud-

ies endorsed this as a risk factor) and contextual risk (every sample had contextual risk given the low-income urban sample inclusion criterion).

Program Characteristics. (a) Type of intervention was coded as follows: (i) person only (only youth targeted), (ii) person plus environmental (youth and environment targeted), (iii) environment only (only environment targeted). (b) Programs were coded as to whether or not they included multiple components (e.g., individual mentoring for youth plus family intervention). (c) Length of the intervention was coded as follows: (i) <3 months, (ii) 3–6 months, (iii) 6–9 months, (iv) 9–12 months, or (v) more than 12 months. For the purpose of analyses, the 6- to 9- and 9- to 12-month categories were combined because of relatively low numbers of studies in these categories, thus creating a total of four categories. (d) The number of sessions, duration of sessions, and frequency of sessions were coded when available. (e) Change agent or the person(s) who delivered the program was coded as either researchers/research-hired staff or usual care providers such as staff or volunteers at community-based organizations. If an intervention was delivered using both researchers and usual care providers, the study was coded as mixed. (f) The description of programs was coded in the following way: (i) provides no/few details, (ii) major procedures specified (excluded in analyses because of an insufficient number of samples), and (iii) manual for program. (g) Supervision was coded as either yes/no, based on whether or not the change agent was provided supervision during delivery of the program.

Effect Size Outcomes. Outcomes for assessment measures used in effect size calculation were categorized as follows: (a) psychological (e.g., depression), (b) school (i.e., (i) behavior—e.g., truancy, (ii) achievement—e.g., grades, (iii) efficacy—e.g., school connectedness), (c) antisocial behavior (e.g., aggressive behavior), (d) interpersonal (e.g., social skills), (e) community or prosocial activities (e.g., community service or social activity), and (f) physical health (e.g., pregnancy). Effect sizes were calculated at postintervention and/or at follow-up time points. Of the 41 independent samples in the current review, 40 provided effect size data on outcomes at postintervention, with one study providing effect size data for outcomes at a 6-month follow-up, but not at postintervention (Friedman, Terras, & Glassman, 2002). Seven studies, in total, provided follow-up effects (at 7 months, on average).

RESULTS

How Effective Have Community-Based Mental Health and Behavioral Programs Been in Promoting Positive Outcomes for Low-Income Urban Youth? More Specifically, to What Extent Have These Programs Had a Favorable Impact on Outcomes for Low-Income Urban Youth and to What Extent Are Impacts Sustained Over Time?

The overall aggregated effect sizes across independent samples were 0.25 (95% CI 0.14–0.36) at post-test ($k = 40$) and 0.00 (95% CI −0.12 to 0.12) at follow-up ($k = 7$). Mean effect size for the six studies at follow-up that also reported on post-test outcomes was 0.05 (95% CI −0.17 to 0.28). The mean effect size for the study that only assessed outcomes at follow-up was −0.18. We also conducted an analysis of follow-up effect sizes in which we subtracted out post-test effects for the same outcomes. This allowed us to examine whether any gains evident at post-test on the same outcomes were maintained at follow-up. Because one of the studies with follow-up data did not have a post-test assessment, this analysis included only six studies. On average, the difference between follow-up and post-test effect sizes was just below zero (MeanES = −0.01, 95% CI −0.24 to 0.22), indicating nonsignificant deterioration in effects.

At post-test, the difference between the aggregated effect sizes across the six outcome categories was not significant $Q_b = 2.42$ ($df = 5$, ns). Effect sizes for each outcome category and their associated confidence interval, significance value, and the number of studies that assessed the outcome are as follows: (a) psychological (MeanES = 0.29, 95% CI 0.09–0.11, $p = .002$, $k = 16$), (b) school (MeanES = 0.25, 95% CI 0.08–0.43, $p = .005$, $k = 16$), (c) antisocial behavior (MeanES = 0.15, 95% CI 0.00–0.31, $p = .05$, $k = 25$), (d) interpersonal (MeanES = 0.21, 95% CI 0.01–0.41, $p = .04$, $k = 18$), (e) community/prosocial activity (MeanES = 0.11, 95% CI −0.21 to 0.43, ns, $k = 6$), and (f) physical health (MeanES = 0.34, 95% CI 0.04–0.63, $p = .03$, $k = 7$).

What Factors (e.g., Sample and Program Characteristics) Influence the Effectiveness of Community-Based Mental Health and Behavioral Programs for Low-Income Urban Youth?

The homogeneity analysis revealed significant variation in effect sizes across samples, $Q = 188.35$, $k = 40$, $p < .000$. The corresponding I^2 value of 79.29% reflects a large degree of heterogeneity in effect sizes (Higgins & Thompson, 2002) and thus provided an empirical rationale for testing potential moderators that might account for this variation (Cooper, 2010). In preliminary analyses of study methodological characteristics as potential moderators of effect size (see Method section of Farahmand et al., 2011), a significant difference $Q_b = 5.63$ ($df = 1$, $p = .02$) was found between studies in which youth were randomly assigned to intervention and control groups (MeanES = 0.17, 95% CI 0.06–0.29, $p < .01$, $k = 28$) and those that did not use random assignment (MeanES = 0.44, 95% CI 0.25–0.63, $p < .001$, $k = 12$), with nonrandom assignment studies having larger effect sizes. Therefore, all subsequent analyses were controlled for this methodological characteristic of studies.

Sample Characteristics

Age. There was a significant trend for age to impact effect sizes when examined as a categorical variable $Q_b = 5.61$ ($df = 2$, $p = .06$), with effects being largest for elementary students (MeanES = 0.36, 95% CI 0.20–0.52, $p < .001$ $k = 16$) and high school students (MeanES = 0.37, 95% CI 0.13–0.62, $p < .01$, $k = 7$) relative to middle school students (MeanES = 0.13, 95% CI −0.01 to 0.27, $p = .08$, $k = 15$). There was a significant difference in effects between elementary school–aged youth and middle school–aged youth ($p < .05$) and a marginally significant difference between middle school–aged youth and high school–aged youth ($p = .09$); however, there was no significant difference in effects between elementary school–aged youth and high school–aged youth.

Sex. Sex did not significantly moderate effect sizes (MeanES for males = 0.24, $k = 35$; MeanES for females = 0.24, $k = 35$).

Ethnic Composition. Only one sample included predominantly Latino youth (MeanES = 0.24); therefore, this sample was unable to be included in moderator analyses. Samples in which youth were predominantly African American (MeanES = 0.41, 95% CI 0.30–0.53, $p < .001$, $k = 20$) were compared with samples in which one type of race/ethnicity did not predominate (MeanES = 0.09, 95% CI −0.04 to 0.21, ns, $k = 15$), and samples in which youth were predominantly African American were found to have a significantly higher effect size, $Q_b = 13.70$ ($df = 1$, $p < .001$).

Level of Intervention. There was no significant difference in effect sizes between universal (MeanES = 0.21, 95% CI 0.09–0.32, $p < .001$, $k = 26$) and selected (MeanES = 0.34, 95% CI 0.17–0.51, $p < .001$, $k = 14$) interventions, $Q_b = 1.68$ ($df = 1$, ns).

Target Problem. There was no significant difference in effect sizes between the different target problems of the programs, $Q_b = 1.73$ ($df = 3$, ns). The mean effect size of externalizing/sexual health programs was 0.25 (95% CI 0.08–0.41, $p < .01$, $k = 13$), broad social/emotional/behavioral programs was 0.16 (95% CI −0.07 to 0.39, ns, $k = 9$), alcohol/substance use programs was 0.19 (95% CI −0.03 to 0.42, $p = .09$, $k = 5$), and family-focused programs was 0.33 (95% CI 0.16–0.50, $p < .001$, $k = 13$).

Risk Factors. There was no significant difference, $Q_b = 0.28$ ($df = 1$, ns), between samples that had at least one identified individual risk factor (MeanES = 0.28, 95% CI 0.13–0.44, $p < .001$, $k = 16$) and those that did not (MeanES = 0.23, 95% CI 0.11–0.35, $p < .001$, $k = 24$). However, there was a significant difference, $Q_b = 5.48$ ($df = 1$, $p < .05$), in effect sizes between samples that had at least one reported processual risk factor (MeanES = 0.48, 95% CI 0.26–0.69, $p < .001$, $k = 7$) and those that did not (MeanES = 0.20, 95% CI 0.10–0.29, $p < .001$, $k = 33$).

Program Characteristics

Type of Intervention. A marginally significant moderation effect, $Q_b = 4.99$ ($df = 2$, $p = .08$), was found for type of intervention. Person-only interventions had a mean effect size of 0.03 (95% CI −0.19 to 0.25, ns, $k = 9$), person plus environment interventions had a mean effect size of 0.27 (95% CI 0.16–0.37, $p < .001$, $k = 27$), and environment-only interventions had a

mean effect size of 0.38 (95% CI 0.15–0.60, $p < .01$, $k = 7$). There was a marginally significant difference between person-only interventions and person plus environment interventions ($p = .06$) and a statistically significant difference between person-only interventions and community-only interventions ($p < .05$), but there was no significant difference between person plus environment and environment-only interventions.

Use of Multiple Program Components. Results revealed no significant difference, $Q_b = 0.25$ ($df = 1$, ns), in association between single-component interventions (MeanES = 0.28, 95% CI 0.13–0.42, $p < .001$, $k = 21$) and multi-component interventions (MeanES = 0.23, 95% CI 0.10–0.36, $p < .001$, $k = 19$).

Length of Intervention. Results revealed no significant difference, $Q_b = 2.37$ ($df = 3$, ns), between effect sizes based on length of the intervention, with mean effects of 0.22 for interventions that lasted <3 months (95% CI 0.01–0.44, $p < .05$, $k = 8$), mean effects of 0.37 for interventions that lasted 3–6 months (95% CI 16–0.57, $p < .001$, $k = 10$), mean effects of 0.14 for interventions that lasted 6–12 months (95% CI −0.06 to 0.34, ns, $k = 8$), and mean effects of 0.26 for interventions lasting more than 12 months (95% CI 0.11–0.41, $p < .001$, $k = 14$).

Number, Duration, and Frequency of Sessions. There was no significant association between number of sessions and effect sizes (MeanES = 0.27, $k = 31$) or duration of sessions and effect sizes (MeanES = 0.24, $k = 27$). Furthermore, there was no significant difference in effect sizes based on the frequency of sessions, $Q_b = 0.93$ ($df = 2$, ns), with effect sizes for programs occurring less than once a week being 0.29 (95% CI 0.08–0.51, $p < .01$, $k = 8$), effect sizes for programs occurring once a week being 0.24 (95% CI 0.10–0.38, $p < .01$, $k = 20$), and effect sizes for programs occurring more than once a week being 0.38 (95% CI 0.13–0.62, $p < .01$, $k = 6$).

Change Agent. Results revealed no significant difference, $Q_b = 1.02$ ($df = 2$, ns), in effect sizes based on whether interventions were delivered by usual care providers (MeanES = 0.29, 95% CI 0.13–0.45, $p < .001$, $k = 16$), researchers or research-hired staff (MeanES = 0.20, 95% CI 0.07–0.34, $p < .01$, $k = 18$), or a combination of usual care and researchers or research-hired staff (MeanES = 0.30, 95% CI 0.08–0.52, $p < .01$, $k = 6$).

Description of the Intervention and Supervision. There was no significant difference between effect sizes based on the description of the intervention, $Q_b = 0.52$ ($df = 1$, ns), with programs that provided manuals having a mean effect size of 0.22 (95% CI 0.12–0.32, $p < .001$, $k = 28$) and programs that only provided few details regarding the program having a mean effect size of 0.31 (95% CI 0.10–0.52, $p < .01$, $k = 9$). Furthermore, there was no difference in effect sizes, $Q_b = 0.04$ ($df = 1$, ns) between programs in which supervision was provided to the person delivering the program (i.e., change agent; MeanES = 0.27, 95% CI 0.10–0.45, $p < .01$, $k = 13$) and programs in which it was not (MeanES = 0.25, 95% CI 0.13–0.38, $p < .001$, $k = 25$).

Supplemental Analyses

Supplementary analyses were conducted to examine whether each significant (ethnicity and processual risk) and marginally significant (age and type of intervention) moderator remained significant and/or marginally significant while controlling for the others. Furthermore, pairwise differences between category outcomes for type of intervention were reexamined with controls. Results of these analyses revealed the following: (a) Ethnicity still remained significant when controlling for processual risk, age, and type of intervention ($p < .001$). (b) Type of intervention increased from marginally significant to significant ($p < .001$) when controlling for ethnicity, processual risk, and age. Furthermore, while there was a marginally significant difference between person-only interventions and person plus environment interventions before, this association became significant ($p < .01$) with the controls. Additionally, person-only and environment-only interventions remained significant ($p < .05$), and the nonsignificant difference between person plus environment and environment-only interventions remained. (c) Processual risk reduced from significant to marginally significant ($p = .06$) while controlling for ethnicity,

age, and type of intervention. This is because of the significant association between processual risk and type of intervention ($v^2 = 7.64$, df = 2, $p < .05$). More specifically, those that were identified as having processual risk were also more likely to be given a person plus environment or environment-only intervention. (d) Finally, age was no longer marginally significant and instead became nonsignificant when controlling for ethnicity, processual risk, and type of intervention. This was likely due to a trend in association between age and ethnicity ($v^2 = 4.47$, df = 2, $p = .11$). More specifically, elementary and high school students were more likely to be primarily African American samples, which was associated with significantly larger effects. Furthermore, more middle school students were more likely to be primarily mixed-ethnicity samples, which was significantly associated with lower effects.

In an effort to understand basic moderator findings for ethnicity, further supplemental analyses were conducted. Given effects were larger for primarily African American youth in comparison with primarily mixed-ethnicity samples, studies were coded on whether the interventions were culturally tailored or not. Results of these analyses, while controlling for type of assignment, revealed culturally relevant programs (MeanES = 0.38, 95% CI 0.07–0.25, $p < .001$, $k = 16$) had significantly higher mean effect sizes in comparison with nonculturally relevant programs (MeanES = 0.04, 95% CI 0.05–0.14, ns, $k = 24$), $Q_b = 6.81$ (df = 1, $p < .001$).

DISCUSSION

Taken as a whole, our findings suggest that community-based mental health and behavioral interventions are modestly effective for low-income urban youth. Although some diversity of effect sizes was observed across study outcome categories for the current review (i.e., psychological, school, antisocial behavior, interpersonal, community/prosocial behaviors, and physical health), these differences were not found to be statistically significant, suggesting generally comparable effects across the range of intervention outcomes assessed. The overall effect size of 0.25 is generally considered to be small (Cohen, 1988) but is largely comparable to previous meta-analytic research evaluating the impact of selected mental health interventions among youth from a wider variety of backgrounds on mental health functioning (0.30; Weisz, Doss, & Hawley, 2006). Furthermore, it is also within the range of standardized mean differences reported in a recent meta-analysis of the effects of after-school programs on youth's personal and social skills (range = 0.10–0.34; Durlak et al., 2010). However, among the small number of studies that assessed outcomes at follow-up time points (an average 7 months after post-test), the effect size was 0.00.

Nonetheless, this study's findings are more positive than those reported in the only other meta-analysis conducted to date with low-income urban youth, which focused on school-based mental health programs with this population (Farahmand et al., 2011), and reported an effect size of only 0.08. The reasons for the discrepancy in findings between these two meta-analyses are unknown, but some insight may be gained from consideration of the context in which school-based mental health services are delivered to low-income urban youth. Relative to the community settings in which interventions occurred in the current project (e.g., after-school programs, in-home interventions), schools have relatively rigid environmental expectations (e.g., structured time, a clear institutional mission and academic agenda) into which intervention practices must be fit (Lyon, Frazier, Mehta, Atkins, & Weisbach, 2011). This may be particularly true in low-income schools, which are more likely to be labeled academically "underperforming" and subjected to increased scrutiny and oversight as a result (Kim & Sunderman, 2005). Furthermore, schools in low-income urban neighborhoods are often underfunded, under-resourced, and poorly functioning (e.g., Anyon, 1995). These systemic stressors, in turn, affect those individuals working within the school system (e.g., leading to high teacher stress, burnout, and turnover; e. g., Abel & Sewell, 1999). Such processes might limit the ability of individuals working within those systems to effectively implement interventions.

Also, as discussed further later, findings from the current review suggest that a focus on the environment is crucial for producing positive effects for low-income urban youth. The interventions included in this review targeted the environment primarily through working with the youth's family as opposed to the school or

neighborhood. Although prior research suggests that urban poverty affects families as well as schools (Conger et al., 1994; Grant et al., 2003), families may be more amenable to change than schools, given the large difference in size and complexity between these two systems. If this hypothesized interpretation is correct, it may well be possible to effect change through school-based interventions within the context of urban poverty. But such interventions may require additional resources to ensure they are not overwhelmed by the negative features associated with schools compromised by the severe and chronic stressors endemic to urban poverty (Abel & Sewell, 1999; Anyon, 1995). Additional research is needed to test these possible explanations for discrepant findings between the two meta-analyses conducted to date of mental health interventions with low-income urban youth.

Factors Influencing Program Effectiveness

Calculated effect sizes were found to vary significantly across studies. Evaluation of factors that influenced program effectiveness revealed a number of variables that moderated outcome. Controlling for methodological factors that were associated with outcome (i.e., type of group assignment), ethnic composition and processual risk were significantly related to program effects, and type of intervention and age were marginally related to program effectiveness. However, when examining each of these four moderators, while controlling for the others, only two moderators were significantly related to program effectiveness: ethnicity and type of intervention.

With regard to ethnicity as a moderator, it is first important to acknowledge that this study was limited in how it could examine this variable. There was only one study that had a predominantly Latino sample, therefore limiting the ability to examine this group in analyses. Additionally, there was no sample that was predominantly nonminority. While the mixed-ethnicity group had samples with European American youth, many of the samples were primarily a mix of African American and Latino youth, thus limiting the scope of diversity within and across the groups compared. Despite these limitations, interesting findings did emerge.

The larger effects observed in studies targeting predominantly African American samples versus mixed-ethnicity samples may be the result of interventions specifically designed to be sensitive to various culturally specific phenomena. Presumably, such culturally tailored interventions would be easier to deliver to a relatively homogeneous sample and more relevant for the youth/families receiving it, thus increasing the likelihood of a positive impact on outcomes. In fact, interventions in the current review that were culturally tailored specifically for African American youth (e.g., Black et al., 2006; Dancy et al., 2006; Mason & Chuang, 2001; Myers et al., 1992; Royse, 1998; Sheehan, DiCara, LeBailly, & Christoffel, 1999) had overall effect sizes at post or follow-up that ranged from 0.22 to 1.01. Furthermore, supplementary analyses revealed that programs that were culturally relevant were significantly more effective than nonculturally adapted interventions. Nevertheless, to date, there has been insufficient research to clearly determine whether culturally adapted mental health interventions are actually any more effective than nonadapted interventions (Huey & Polo, 2008). Results of the current review, however, highlight the importance of culturally tailored community-based interventions for low-income urban youth.

Type of intervention was the other moderator to have a significant impact on program effectiveness. Programs that focused only on the individual youth were significantly less effective than interventions that focused on the youth plus one or more environmental targets or environmental targets alone. In fact, youth-only interventions were not found to be effective. These programs had a nonsignificant effect size (0.03) and a 95% confidence interval that extends well into the negative range (−0.19 to 0.25). Researchers have long argued that consideration of the ecologies in which youth develop and receive interventions is essential (cf. Bronfenbrenner, 1979), and prior narrative and meta-analytic reviews have indicated that inclusion of ecological components typically improves outcomes for youth, in general (Greenberg, 2001; McCart, Priester, Davies, & Azen, 2006; Rones & Hoagwood, 2000; Tobler et al., 2000). Nonetheless, the finding of the current meta-analysis that youth-only programs were not effective may be unique to our population of low-income urban youth, as prior reviews and meta-analyses of individually based mental health

programs with the broader population have, generally, reported positive effects (e.g., Bennett & Gibbons, 2000; Gaylord-Harden et al., 2011). This finding may indicate that individually based programs are insufficient to combat the broader risk factors affecting youth residing in urban poverty, perhaps contributing to a protective reactive effect for these youth (i.e., in which protective factors are overwhelmed by especially severe and/or chronic risk; Luthar, Cicchetti, & Becker, 2000).

As described previously, the settings in which low-income urban youth spend their time are compromised by urban poverty, placing them at risk for the development of mental health problems (Conger et al., 1994; Grant et al., 2003). It follows that interventions designed to directly affect those settings are best situated to produce positive changes in this population. Indeed, this argument has been made previously by scholars focused on health promotion within impoverished communities (e.g., Kumankika & Frier, 2006; Maton, 2005).We believe our finding represents the first systematic, quantitative evaluation of the extant research evidence to support these assertions.

The marginally significant finding for processual risk suggests a trend for samples that identified at least one processual risk factor (e.g., high family conflict) to report stronger program effects than those that did not identify processual risk factors. These findings likely reflect the significant association between processual risk and type of intervention, however. A higher number of samples who received environment-only interventions (50%) or person plus environment interventions (37.5%) were also likely to have identified at least one processual risk factor. These environmental targets were, in most cases, parents, and the programs were often directly targeting family processes as outcomes. Consistent with the findings discussed earlier, these findings suggest that targeting processual risk factors as part of an environmentally based intervention is effective for low-income urban youth.

An evaluation of differences by age originally revealed a statistically significant difference between elementary and middle school students and between high school and middle school students, with the smallest effects for middle school students and larger effects for elementary and high school students. This finding did not hold when controlling for ethnicity, type of intervention, and processual risk, however, likely due to the trend in association between age and ethnicity as more elementary and high school students were also primarily African American. It is unclear whether the significant and strong finding for ethnicity was accounting for the variance in the association between age and effect sizes and age truly is insignificant or whether the imbalance between the amount of primarily African American samples in middle school compared with elementary and high school was driving the finding. Regardless, it is important to provide more middle school African American students with culturally tailored interventions.

Finally, there are a number of variables that are notable precisely because they did not significantly influence program effects. More specifically, sex; level of the intervention; target of the intervention; individual risk factors; use of multiple program components; length of intervention; number; duration, and frequency of sessions; description of the intervention; and supervision of the change agent were all unrelated to program effects. Results of the current meta-analysis suggest that these variables are, generally, unrelated to effectiveness for community-based programs administered to low-income urban youth. Additional intervention evaluation studies are needed to determine whether any of these variables might become important within particular contexts or under particular circumstances.

LIMITATIONS

One limitation of the current review that might contribute to type 1 error, yet affects all reviews, is that authors of the reviewed studies might not have reported on all outcomes examined. In particular, authors may have been more likely to report positive and significant findings. As a result, effect sizes reported in this review may be an overrepresentation of true program effects. An additional limitation that applies to meta-analyses, in particular, is the exclusion of studies that do not allow for the calculation of effect sizes. While attempts were made to be as inclusive as possible (e.g., inclusion of dissertations), many studies that met initial inclusion criteria had to be excluded from the

analyses because of an inability to calculate at least one effect size among reported outcomes.

CONCLUSION—IMPLICATIONS FOR RESEARCH AND PRACTICE

In conclusion, results of the current meta-analysis suggest that community-based interventions have modest positive effects on low-income urban youth. Considered within the context of the only other meta-analysis to examine the effectiveness of interventions with this population (Farahmand et al., 2011), these results suggest that practitioners charged with selecting an intervention for youth residing in urban poverty are best served selecting a community-based rather than a school-based intervention. This is especially true for practitioners seeking a selected intervention for youth with conduct problems, as Farahmand and colleagues' (2011) meta-analysis revealed findings in the negative range for this group of youth and the current results do not suggest similar risks with community-based programs. Practitioners seeking a universal intervention for youth with internalizing problems, however, may do well to consider a school-based intervention, as this was the one category of samples to demonstrate a significant positive effect in Farahmand and colleagues' (2011) school-based review, and the current review revealed only one evaluated intervention that targeted internalizing outcomes.

Results also highlight the need for additional research to examine why and under what circumstances particular types of interventions are effective for low-income urban youth. An especially relevant area for inquiry is the examination of our hypothesized interpretation for the discrepant findings between our review and the previously conducted school-based review, namely, do the differences in size and complexity between family and school systems explain the different pattern of findings? And, if so, can larger-scale school-based interventions demonstrate the same level of positive effects reported for community-based programs, which more typically target family systems?

Other areas for future research include intervention and evaluation studies conducted with low-income urban Latino youth. Only one study in this review included a predominantly Latino sample. More development, implementation, and evaluation of programs targeting internalizing problems also are needed. As mentioned earlier, only one study focused specifically on internalizing problems (i.e., depression). In addition, research is needed to test our hypothesized interpretation that the use of culturally specific interventions explained the larger effects found for programs delivered to primarily African American youth. In the meantime, results suggest there may be practice benefits to focusing interventions on African American groups rather than mixed groups.

Finally, and most importantly for practice, the findings suggest it is essential for mental health and behavioral interventions administered to low-income urban youth to target their environments. This requires the field of clinical psychology to reconceptualize its typical method of intervention delivery, at least for low-income urban youth. It is essential that this be done, however, as results suggest that working with low-income urban youth alone not only is ineffective but could actually produce negative effects.

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