Development of Cities Mentor Project: An Intervention to Improve Academic Outcomes for Low-Income Urban Youth Through Instruction in Effective Coping Supported by Mentoring Relationships and Protective Settings

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Development of Cities Mentor Project: 
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Through Instruction in Effective Coping 
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This manuscript summarizes an iterative process used to develop a new intervention for low-income urban youth at risk for negative academic outcomes (e.g., disengagement, failure, drop-out). A series of seven steps, building incrementally one upon the other, are described: 1) identify targets of the intervention; 2) develop logic model; 3) identify effective elements of targets; 4) vet intervention with stakeholders; 5) develop models for sustaining the intervention; 6) develop measures of relevant constructs currently

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missing from the literature; 7) assess feasibility and usability of the intervention. Methods used to accomplish these steps include basic research studies, literature reviews, meta-analyses, focus groups, community advisory meetings, consultations with scholarly consultants, and piloting. The resulting intervention provides early adolescents in low-income urban communities with a) training in contextually relevant coping, b) connection to mentors who support youth’s developing coping strategies, and c) connection to youth-serving community organizations, where youth receive additional support.

KEYWORDS academic outcomes, behavioral, emotional, and social outcomes, intervention development, students, urban poverty or academic outcomes, behavioral and emotional outcomes, social outcomes, urban poverty

RATIONALE FOR A NEW INTERVENTION FOR LOW-INCOME URBAN YOUTH

It is well documented that there are substantial disparities in academic engagement, achievement, and school completion between youth residing in low-income urban communities and those residing elsewhere in our nation (Ceballo, McLoyd, & Teru 2004; Crowder & South, 2003; Gonzales, Cause, Ruth, & Craig, 1996). Within low-income urban communities there is a confluence of economic constraints, under-resourced schools, and exposure to community violence that all work to impede the learning process and to undermine investment of students in achievement as a means toward success and well-being. These problems have drawn considerable attention and have been the focus of several policy initiatives, such as Head Start (Harris, 2007; Kowaleski-Jones, Duniform, & Ream, 2006; Leventhal & Brooks-Gunn, 2004). Despite these efforts, pernicious disparities in achievement continue, and school failure and non-completion occur at elevated rates in low-income urban communities (Leventhal & Brooks-Gunn, 2004; McLoyd, 1998; Morales & Guerra, 2006). Clearly, there is need for additional efforts that can improve the engagement, achievement, and retention of students in high-risk urban communities and schools. This article describes the authors’ efforts to develop a new intervention that integrates and applies knowledge gained from two prior lines of intervention research (coping skills and mentoring) and emerging evidence on the importance of university and community organizations as supportive partners to under-resourced schools.

Whether due to the culmination of earlier influences, emerging stressors, or decreasing support from adults, there is a sharp increase in school
failure and drop-out in urban schools with the transition to high school (Arnett, 1999; Cauce, Stewart, Rodriguez, Cochran, & Ginzler, 2003; Compas, Hinden, & Gerhardt, 1995). Notwithstanding the importance of early support, the middle school years and the transition to high school are a critical period for preventing academic disengagement, school failure, and drop-out for low-income urban youth (National Center for Education Statistics, 1992; Scaramella, Conger, & Simons, 1999; Seidman, Aber, Allen, & French, 1996) and for preventing increases in delinquency (Moffit, 1993), substance use (Blum, Beuhring, & Rinehart, 2000; O’Malley, Johnston, & Bachman, 1998), and depression that further contribute to academic problems (Gould, Greenberg, Velting, & Shaffer, 2003; Lewinsohn, Clarke, Seeley, & Rohde, 1994; Seidman, Lambert, Allen, & Aber, 2003).

Our new intervention (Cities Mentor Project) provides middle school students a support program that is designed to increase motivation and skills for engaging with academic work and lead to improvements in academic achievement and school completion. By developing a program to help students cope with ecologically based stressors through development of individual, interpersonal, and organizational resources; subsequently establishing the program’s efficacy and effectiveness; and, ultimately, disseminating it on a broader scale, our long-term goal is to increase the proportion of students who engage and achieve academically during middle school and high school and beyond.

**STEP 1—IDENTIFY TARGETS OF THE INTERVENTION**

The foundation for the intervention we sought to develop came from our basic research with 225 low-income urban youth who (along with their parents and teachers) reported on the stressors present in their lives, potential protective factors, and emotional, behavioral, social, and academic outcomes over a four-year period. One of the most striking findings to emerge from this research was that individually based protective strategies, such as active coping efforts, were ineffective for youth facing the most severe and chronic stressors unless broader supports were in place (Grant et al., 2014). Even the most severely stressed youth could benefit from individually based protective strategies, such as active coping, if they also experienced at least one relationship with a supportive adult and at least one connection to a protective setting (e.g., family, school, church). Based on these results, we developed the initial individual, interpersonal, and contextual components of our intervention. Our next step was to identify the particular type of individual skill, interpersonal support, and contextual connection to promote in our new intervention. To inform this decision, we turned to the broader literature on protective factors for youth.
Coping in Context

Results of our literature review suggest that training in effective coping may be particularly helpful for adolescents residing in low-income urban communities. Across populations, higher rates of stressful life experiences predict negative academic outcomes including poor grades and school drop-out (Ham, 2004; Henrich, Schwab-Stone, Fanti, Jones, & Ruchlch, 2004; Jeynes, 2002), and, during adolescence, stressors and the risk for negative academic outcomes increase (Arnett, 1999; Cauce et al., 2003; Compas et al., 1995; Fenzel, Magaletta, & Peyrot, 1997; Grannis & Fahs, 1998). Several studies also suggest that developmentally related stressors have a greater impact on low-income urban youth (e.g., Tolan & Henry, 1996), perhaps because urban poverty increases exposure both to common major life events (e.g., parental divorce or separation) and other stressors that are quite rare in other communities (e.g., community violence, frequent moving, incarceration of family members or friends) (Attar, Guerra & Tolan, 1994; Grant, 2007; Guerra, Huesmann, Tolan, VanAcker, & Eron, 1995). Another source of stress for low-income urban youth is based in historical racism and its legacy of poverty, unequal treatment, and blocked opportunities for African-American and Latino individuals. With poverty rates two to three times those for European-American youth, families of color are not only disproportionately faced with the many economic and other stressors associated with urban poverty, but they also are exposed to racism, discrimination, and acculturation stressors (Gottschalk, McLanahan, & Sandefur, 1994; Huston, McLoyd, & Coll, 1994; U.S. Census Bureau, 2010). As members of a racial minority group burdened by historical and contemporary racism, low-income urban African-American youth may be particularly affected by ongoing racial discrimination and stereotypes that impede academic success (Ambert, 1998; Bobo & Smith, 1994; Mattison & Aber, 2007).

There also is substantial evidence that low-income urban youth have limited opportunity to observe, learn, or gain facility with coping strategies needed to manage the high levels and severe nature of the stressors they experience (Galaif, Sussman, Chou, & Wills, 2003; Tolan, Sherrod, & Gorman-Smith, 2004; Whaley & Davis, 2007). Qualitative and quantitative studies of coping in the context of urban poverty indicate that many youth are unable to describe responses that constitute effective coping in relation to developmental, social, and context specific stressors common in their communities (Grant, 2007; Grant et al., 2000; Tolan et al., 2004). Further, there is evidence that when low-income urban youth use types of coping found to be effective in other settings, the same benefit may not occur because of the chronicity and/or the extreme nature of the stressors they experience (Carothers et al., 2012; Grant et al., 2000; Landis et al., 2007).
Taken together, this research suggests that promoting effective coping to promote academic engagement, achievement, and completion for low-income urban youth may require opportunities for gaining, practicing, and using effective coping strategies in the context of relationships with supportive adults (Dusek & Danko, 1994; Scott, 2003; Stern & Zevon, 1990). Access to adult support may be helpful because use of coping for particular stressors and contexts can be shaped with guidance, the adolescent sees modeling of effective coping with complex and high levels of stress, and independent management is achieved through a graduated process of increasing competency while maintaining protection from overwhelming or absolute exposure and responsibility.

Supportive Adults and Mentoring

Mentoring programs may have exceptional importance in affecting coping and therefore school engagement, achievement, and completion for youth in low-income urban neighborhoods as there are fewer adults to meet the needs of youth in these communities (Hart, Atkins, Markey, & Youniss, 2004; U.S. Census Bureau, 2010). Elevated rates of single-parenthood, marital separation and divorce, death of parent(s), residence changes, family isolation, and less industry and commerce that employ adults in the community all contribute to the substantially higher child to adult ratios prevalent in low income urban communities relative to more affluent communities and reduced access to those adults who are present (Hart et al., 2004; U.S. Census Bureau, 2010). Furthermore, the adults present in low-income urban neighborhoods face many of the same stressors youth do and, therefore, may have limited capacity to extend nurturance and support to youth (Grant et al., 2005; Gutman, McLoyd, & Tokoyawa, 2005; Sánchez, Colón, Feuer, Roundfield, & Berardi, 2014).

Schools and Settings

Urban poverty also takes its toll on schools, limiting access to capable adults and supportive contexts there (Brooks-Gunn, Duncan, & Aber, 1997; Cherniss & Adler, 2000). For this reason, the likelihood of getting support if sought from the school is less than in wealthier districts (Evans, 2004; Phillips, Voran, Kisker, Howes, & Whitbook, 1994). Urban poverty affects schools directly through reduced funding and indirectly through increased stressful conditions and experiences within and around the school setting (Ginsberg, 1987; National Center for Education Statistics, 1992). Urban schools are more likely to be housed in poorly maintained buildings, to have inadequate supplies (Comer, Ben-Avie, Haynes, & Joyner, 1999; Corcoran, 1988), to be marked by ongoing safety concerns, and to have trouble retaining qualified personnel (Comer et al., 1999; Elias,
Working in such an environment can erode staff morale and lead to a sense of hopelessness (Adelman, & Taylor, 1997; Elias et al., 2003; Virtanen, Kivimaki, & Elovainio, 2007). As a result of all these factors, urban schools tend to experience greater strain both in meeting the needs of their student body and in supporting engaged personnel, which further diminishes their ability to provide needed supports, protection, and guidance to youth in learning methods for coping with stress (Brooks-Gunn et al., 1997; Evans & Kantrowitz, 2002; U.S. Department of Justice, 2003) that will stave off emotional and behavioral problems that impede school engagement (Bradley & Corwyn, 2002; Brandt, 2003; Elias et al., 2003). These findings not only show the limitations in support available to youth in these schools but also suggest that supporting schools through partnerships with more highly resourced organizations could mitigate urban poverty’s effects on academic engagement and achievement.

In sum, based on our own research and subsequent literature reviews, we identified coping, mentoring, and connections to protective settings as target mechanisms for our intervention. We expect pairing of coping and mentoring to synthesize the strengths of both approaches to improve impact and increase sustainability. In addition, it was our intent to develop a program based in school-agency partnerships that bring systemic supports to low-income urban youth and their schools.

STEP 2—DEVELOP LOGIC MODEL

Once we had identified the core components of our new intervention, we returned to the theoretical literature to develop a logic model. The stress paradigm provides a framework for understanding both (a) the factors that place low-income urban youth at risk for negative academic outcomes and (b) the processes that can be affected by intervention. The most basic tenet of stress theory is that exposure to environmental stressors is predictive of negative outcomes (Grant et al., 2003). Based on this tenet, low-income urban youth would be expected to be at heightened risk for negative outcomes as they are disproportionately exposed to a range of environmental stressors (Attar et al., 1994; Carlson & Grant, 2008; Grant et al., 2004). Consistent with this tenet, there is evidence of a direct relation between stressors and compromised learning (Crean, 2004; Frydenberg et al., 2004; Henrich et al., 2004). For example, parental divorce (Ham, 2004; Jeynes, 2002) and exposure to community violence (Henrich et al., 2004) have been found to predict academic problems, and interventions that reduce exposure to stressors have led to improved learning outcomes (Huston et al., 2001; Rajendran & Kaliappan, 1990). Several studies also suggest that disproportionate exposure to stressors contributes to lower academic achievement among
some racial and/or ethnic minority groups (Attar et al., 1994; Gillock & Reyes, 1999; Schmeelk-Cone & Zimmerman, 2003). Beyond a direct relationship, there is substantial evidence that stressors contribute to academic problems indirectly through their influence on behavioral and mental health outcomes (e.g., Cunningham, Hurley, Foney, & Hayes, 2002; Saigh, Mroueh, & Bremmer, 1997; Spenciner Rosenthal & Wilson, 2003).

Another basic tenet of the stress paradigm is that the relation between stressors and developmental outcomes can be mitigated by protective processes, particularly coping skills and supportive adult relationships (Grant et al., 2000, 2003; Luthar, Cicchetti, & Becker, 2000). As depicted in Figure 1, components of the developing intervention are expected to strengthen coping strategies and relationships with adults in the lives of adolescent participants in ways that buffer against the deleterious effects of stressors and compromised systems on academic as well as emotional and behavioral outcomes. In particular, it is anticipated that relationships with adults will foster adaptive coping strategies and that adaptive coping strategies will further strengthen relationships with adults. These effects are expected to extend beyond the specific relationships with mentors to also improve relationships with teachers and parents, which will further impact student engagement, achievement, and school completion. Also depicted in Figure 1, positive relationships with adults and improved coping are expected to lead to improved academic outcomes directly and indirectly through improved emotional and behavioral health. Once we had identified intervention components and developed our logic model, we submitted a grant proposal to the Institute of Education Sciences (IES) to fund next steps in the intervention development process.

**FIGURE 1** Mechanisms through which Cities Mentor Project is expected to affect processes linking urban poverty with negative academic outcomes (i.e., logic model, theory of change).
STEP 3—IDENTIFY EFFECTIVE ELEMENTS OF TARGETS

With funding from IES, we turned our attention to the identification of effective elements of coping and mentoring interventions and setting influences on the effectiveness of emotional, social, and behavioral interventions for low-income urban youth. To accomplish this step, members of our research team completed four meta-analyses. The first (funded by IES) focused on coping interventions and included 77 independent evaluations of coping program effects on social, behavioral, and educational outcomes. Results of this meta-analysis revealed that coping interventions moderately predicted positive outcomes for youth (.31 +/- .09); however, effect sizes differed across outcome type. Social and behavioral outcomes had higher effect sizes (.23 +/- .17) than academic outcomes (.00 +/- .29). In addition, for those evaluations that included a follow-up, effects deteriorated over time (1st follow-up = -.02 +/- .09; 2nd follow-up = -.08 +/- .17; Gaylord-Harden et al., 2012).

Based on these results, we selected a coping intervention designed to focus specifically on academics as the initial model for our coping curriculum (Gonzales’ Bridges Program). In addition, we developed coping curriculum booster sessions for mentors and mentees. Finally, we developed protocols for embedding coping training into ongoing mentoring relationships and developed plans for evaluating effects over multiple follow-ups.

The second meta-analysis (funded by the National Mentoring Partnership) included 73 independent evaluations of mentoring program effects on social, behavioral, and educational outcomes. Results revealed that mentoring interventions modestly predicted positive social, behavioral, and educational outcomes for youth (.21 +/- .05), and effect sizes did not differ across outcome type. In addition, for evaluations that included a follow-up, effects did not deteriorate over time. Furthermore, interventions that included an advocacy role and a teaching/information provision role for mentors, and interventions that matched youth based on similarity of interests but not demographics were more effective (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011). Based on these results, we selected a mentoring intervention designed to include academic advocacy as the model for our mentoring curriculum (Meyer’s Blue Ribbon Mentor-Advocate Program). In addition, we developed a model in which the coping curriculum is administered to mentors and mentees together with in-session and homework assignments in which mentors provide ongoing teaching. Finally, we created protocols in which similarity of interest is given priority over demographic similarity.

To identify setting influences on the effectiveness of emotional, social, and behavioral interventions for low-income urban youth, we conducted a meta-analysis of 44 independent evaluations of psychosocial interventions...
conducted with low-income urban youth in community-based settings outside school (e.g., community mental health centers) and a second meta-analysis and qualitative review of 29 independent evaluations of psychosocial interventions conducted with low-income urban youth within school settings. Results of these meta-analyses revealed that community-based interventions (.25 +/− .11) are more effective than school-based interventions (.08 +/− .09) within the context of urban poverty (Farahmand et al., 2012; Farahmand, Grant, Polo, Duffy, & Dubois, 2011). Furthermore, results of the qualitative review, which replicated methods of an earlier qualitative review of school-based psychosocial interventions with the broader population of youth, indicate that disappointing findings for school-based psychosocial interventions are specific to those conducted in low-income urban schools. Based on these findings, we developed an intervention model that both supports low-income urban schools and avoids embedding programming in potentially failing systems. This model involves administering the intervention after-school using school-affiliated staff from community mental health centers. In addition, we have developed a second intervention development grant proposal to fund efforts to investigate barriers to effective intervention delivery in low-income urban schools with the goal of developing alternative service delivery models that effectively make use of teachers and school staff.

STEP 4—VET INTERVENTION WITH STAKEHOLDERS

The fourth step in our iterative development process was to identify components that are essential for stakeholder (i.e., school administrators, teachers, parents, students) investment in our intervention and to ensure the intervention is culturally and contextually relevant to those stakeholders. To accomplish this step, we developed partnerships with three schools (with very poor academic records) and with community organization leaders in the predominantly African-American community of Englewood, which is one of the most impoverished in Chicago. We conducted nine focus groups (two with male students; two with female students; three with parents; and two with teachers and school staff members) and held 12 community advisory board meetings (that included school staff, parents, students, and community leaders), in which we requested feedback on the developing intervention. Two of the most consistent messages we heard from stakeholders were that the intervention should target youth younger than the 8th-graders we had originally identified and that the intervention should make a long-term commitment to participants. Other elements of the program (which were developed based on research with this population) were deemed culturally and contextually relevant (Carothers, Tyler, & Grant, 2012). Based on stakeholder input, we made two changes to the intervention. First, we shifted the
target grade for initiation into the intervention from 8th to 6th grade. Second, we shifted our conceptualization of the intervention from a short-term model (focused on the transition to high-school) to a long-term model focused on following youth through the transition to college. In keeping with this second shift, we adopted the long-term commitment protocol implemented by the advocacy-based mentoring program we had selected as our model (i.e., Meyer’s Blue Ribbon Mentor Advocate Program).

STEP 5—DEVELOP MODELS FOR SUSTAINING THE INTERVENTION

The fifth step was to develop models to ensure we could sustain the long-term commitment to youth that our school and community partners deemed so essential. To accomplish this step, we consulted with eight scholars, who served as consultants on our IES development award (coping experts, Dr. Bruce Compas and Dr. Irwin Sandler; mentoring experts, Dr. Barton Hirsch and Dr. Jean Rhodes; urban poverty experts, Dr. Kenneth Maton and Dr. Roderick Watts; and experts on the implementation of interventions in school settings, Dr. Marc Atkins and Dr. Tom Kratochwill). Consultants suggested embedding the intervention in existing university infrastructures to build sustainability at minimal cost. In response to this feedback, we developed a model in which undergraduates pay to take a yearlong service learning course, in which they are trained to serve as mentors and advocates to their mentees.

STEP 6—DEVELOP MEASURES OF RELEVANT CONSTRUCTS MISSING FROM THE LITERATURE

The next step in our intervention development process was to develop measures of relevant constructs currently missing from the literature. In particular, we sought to develop empirically based measures of severe and chronic stressors and compromised systems to ensure we adequately assessed the stressors with which participating youth would be coping. We also sought to develop measures of mechanisms introduced in the intervention (i.e., exposure to protective settings in partner community organizations and relationships with formal and informal mentors) so that we could track changes on these variables. Based on stress interview data collected in our longitudinal study, which was qualitatively analyzed for themes and then coded quantitatively for objective threat, and consultation with scholars (Drs. Achenbach, Allison, Compas, Dohrenwend, Griffith, Hirsch, Jackson, Kratochwill, Larson, Maton, Rudolph, Seidman, Utsey, Watts), we developed an empirically based measure of major events and systemic stressors (Grant et al., 2012). Based on protective
factor interview data collected in our longitudinal study, which was qualitatively analyzed for themes, and consultation with the same scholars listed above, we developed a measure of protective settings (Grant, Barnett, & Johnson, 2012). Based on consultant input and reviews of the literature (including our own studies), we constructed measures of formal and informal mentoring (DuBois, 2012). These measures were piloted in our feasibility and usability study (described below) and are currently being evaluated for psychometric properties with funding from the National Institute of Health.

**STEP 7—ASSESS FEASIBILITY AND USABILITY OF THE INTERVENTION**

The final step we have taken, thus far, was to assess the feasibility and usability of this intervention in the short term, to pilot new measures we had developed, and to lay the foundation for evaluating its promise over a longer time period. To complete this step, we piloted the first year of the intervention in truncated time (i.e., three months) with 17 intervention youth and 18 controls in two of our partner schools (the third was slated for closing). Coping sessions were video-taped. Mentoring and protective setting participation was documented. Fidelity, usability, and satisfaction measures were collected.

Observation of intervention component implementation and analysis of fidelity, usability, feasibility, and satisfaction measures suggest that the intervention is feasible and usable and appreciated by participants. We are currently initiating a second year of piloting with a second cohort of 34 intervention and 33 control students attending partner schools. This pilot will follow the intended timing of the first year of the intervention (i.e., 12 months). Of note, approximately 50% of youth volunteered to participate in the original truncated pilot, whereas more than 98% of youth (all but one student) volunteered to participate in the second pilot, indicating the program is developing a positive reputation within partner schools. Participating youth and controls in both pilots will be followed over time to assess promise of efficacy of the intervention.

**Summary of Intervention Components and Timing**

Based on the results of the seven-step process outlined above, we developed an intervention that pairs 6th-grade students attending schools in low-income urban neighborhoods with university mentor-advocates who receive course credit and supervision through a service-learning course. Mentors and mentees, together, attend coping training sessions after-school at partner schools. Coping sessions are administered by school affiliated staff from
university-based community mental health center. Mentors are responsible for connecting with teachers and parents and for advocating academically for their mentees. Mentors also are expected to a) connect mentees with protective settings at partner community organizations for participation in after-school and summer activities and b) to practice coping strategies with mentees in real-life situations. Mentors are required to make at least a two-year commitment to youth, and the program makes an eight-year commitment to youth (with the plan to replace mentors as needed). In Years 2 through 8, mentors and mentees will attend booster coping training sessions, and mentors will continue to advocate academically for their mentees and to ensure that they are connected to protective settings at partner community organizations, finding new settings for youth as needed (i.e., based on youth interests and goals). The components and timing of the intervention are summarized in Table 1. For a detailed description of these components and their protocols, please request a copy of the manual from the first author.

Next Steps

We have taken seven major steps toward the development of Cities Mentor Project as part of an iterative intervention development process. That iterative process led to the development of an intervention that is more cost-effective and potentially more powerful than anything we had originally envisioned.

That iterative process also revealed that additional development work is needed before we are prepared to formally test efficacy of the new intervention. In particular, our meta-analytic work revealed that social and behavioral interventions administered in low-income urban schools are less effective than in other settings, so we developed delivery approaches that

<table>
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<tr>
<th>TABLE 1 Components and Timing of Intervention</th>
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<tr>
<td>When</td>
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<tr>
<td>Year 1 Nov.–Jun.</td>
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<td>Year 1 Jul.– Year 8</td>
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</table>
make use of school affiliated staff (i.e., community mental health center counselors) rather than teachers and school staff. While this proved feasible, additional work is needed to better understand barriers to effective service delivery in low-income urban schools so that we can develop effective approaches that make use of teachers and school staff. Development of additional service delivery models such as these not only would increase the flexibility of the intervention but also have the potential to increase the intervention’s impact by directly affecting teacher–student relationships and the broader school system.

Second, at the urging of our community advisory board, we committed to supporting Cities Mentor Project youth not only through the transition from middle school to high school but also through the transition from high school to college. Thus, we now must develop (and assess feasibility of) later years of the intervention.

Finally, to ensure we could honor our long-term commitment independent of grant funding, we developed cost-effective intervention models that make use of existing resources (e.g., service learning courses that teach and support university students to serve as mentors). It is now important to determine whether these intervention models are usable, feasible, acceptable, and cost-effective outside of the university and community in which they were developed. As part of this process, we plan to evaluate effects of the intervention on university mentor academic outcomes based on emerging research that service learning and supervision structures like those provided to mentors through our intervention increase university student engagement and retention (Crisp & Cruz, 2009; Garcia, 2010; Johnson, 2007; Mullen, 2007). If we can establish effects such as these, it will increase the appeal of the intervention to university partners and, thereby, increase feasibility in multiple settings. We also plan to work with Latino communities to ensure the intervention is relevant and acceptable to Latino students and families.

SUMMARY AND CONCLUSION

In this article, we have described the seven steps we have taken to develop a new intervention for low-income urban youth through instruction in effective coping supported by mentoring relationships and protective settings (Cities Mentor Project). These steps are summarized in Table 2. Next steps will focus on (a) developing new service delivery models that make use of teachers and school staff to increase impact on school systems, (b) developing protocols for later years of the intervention, (c) establishing feasibility of this intervention over the long-term in additional low-income urban communities, with additional university partners, and (d) testing for preliminary evidence of efficacy.
### TABLE 2  Seven Step Iterative Process to Develop Cities Mentor Project (Completed to Date)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Approach</th>
<th>Results</th>
<th>Changes to intervention</th>
</tr>
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<tbody>
<tr>
<td>STEP 1: Identify targets of the intervention</td>
<td>4-year study of risk &amp; protective processes &amp; literature reviews</td>
<td>Individually based coping exacerbated association between stressors &amp; negative outcomes for severely stressed youth. But, youth could benefit from coping if done in context of interpersonal &amp; setting supports. Grant et al. (2012). Coping &amp; mentoring are promising intervention targets. Urban schools are taxed &amp; require support from partners.</td>
<td>Selected coping, mentoring, &amp; connection to protective settings at community partner organizations as malleable mechanisms for intervention</td>
</tr>
<tr>
<td>STEP 2: Develop logic model</td>
<td>Reviews of relevant theory &amp; empirical literature</td>
<td>Stress paradigm provides relevant framework. Basic tenet is that stressors predict negative outcomes. There is a direct relation between stressors &amp; compromised learning &amp; stressors contribute to academic problems indirectly through social &amp; behavioral outcomes. Another basic tenet is stress effects can be mitigated by protective processes (e.g., coping &amp; adult relationships).</td>
<td>Developed logic model in which intervention components strengthen coping &amp; relationships with adults that buffer effects of urban poverty</td>
</tr>
<tr>
<td>STEP 3: Identify effective elements of targets</td>
<td>4 meta-analyses of coping &amp; mentoring interventions &amp; settings effects</td>
<td>Coping interventions moderately predicted social &amp; behavioral outcomes but not academic outcomes, &amp; effects</td>
<td>Chose coping model focused on academics &amp; developed boosters. Chose mentoring model focused on advocacy &amp; (Continued)</td>
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### TABLE 2 Continued

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<th>Purpose</th>
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<tr>
<td></td>
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<td>deteriorated over time (Gaylord-Harden et al., 2012). Mentoring interventions modestly predicted social, behavioral &amp; educational outcomes &amp; were more effective with advocacy &amp; training included &amp; effects did not deteriorate over time (DuBois et al., 2011). Community-based interventions were more effective than school-based interventions within urban poverty (Farahmand et al., 2011; Farahmand et al., in press).</td>
<td>embedded coping training. Developed community–school partnership.</td>
</tr>
</tbody>
</table>

**STEP 4: Vet intervention with stakeholders**

| Nine focus groups & 12 community advisory board meetings | Two of the most consistent messages we heard from stake-holders were that the intervention should target younger youth (than the eighth graders we had originally identified) & that the intervention should make a long-term commitment to youth. Other elements of the program (which were developed based on research with this population) were deemed culturally & contextually relevant (Carothers et al., 2012). | Shifted target from eighth to sixth grade. Made eight-year commitment to youth in order to see them through their first year of college |

*(Continued)*
### TABLE 2  Continued

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<th>Purpose</th>
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<th>Changes to intervention</th>
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<tr>
<td><strong>STEP 5: Develop sustainable models</strong></td>
<td>Consultation with eight scholarly consultants</td>
<td>Consultants suggested embedding the intervention in existing university infrastructures to build sustainability at minimal cost.</td>
<td>Developed model in which undergraduates pay to take course, providing training in mentoring &amp; advocacy</td>
</tr>
<tr>
<td><strong>STEP 6: Develop measures missing from literature</strong></td>
<td>Qualitative analysis, coding of objective threat, consultant input &amp; literature reviews</td>
<td>Independent coders established inter-rater reliability for objective threat of stressors, which provided the foundation of empirically based measures of severe and chronic stressors &amp; compromised systems (Grant et al., 2012). Measures of protective settings (based on qualitative analysis, literature reviews, &amp; consultant input; Grant et al., 2012) &amp; of formal &amp; informal mentoring (based on empirical studies, literature reviews, &amp; consultant input; DuBois, 2012) were created.</td>
<td>These measures will be used to assess dosage of intervention variables &amp; moderators &amp; mediators of intervention effects.</td>
</tr>
<tr>
<td><strong>STEP 7: Assess feasibility &amp; usability</strong></td>
<td>Truncated pilot with 17 intervention youth &amp; 18 controls</td>
<td>Observation of intervention component implementation &amp; analysis of usability, feasibility, satisfaction, &amp; fidelity measures suggest the intervention is feasible &amp; usable and appreciated. Newly constructed measures that were piloted also proved feasible &amp; usable.</td>
<td>Currently assessing feasibility &amp; usability with a second cohort of 34 intervention &amp; 33 controls</td>
</tr>
</tbody>
</table>
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REFERENCES


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