



HHS Public Access

Author manuscript

Contemp Sch Psychol. Author manuscript; available in PMC 2018 September 01.

Published in final edited form as:

Contemp Sch Psychol. 2017 September ; 21(3): 223–239.

Adapting and Implementing a School-Based Resilience-Building Curriculum Among Low-Income Racial and Ethnic Minority Students

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Abstract

Although youth are at risk for exposure to adversity and trauma, many youth, especially ethnic and racial minorities, do not have access to mental health care. Resilience-building curriculums can teach important internal resilience skills and provide support to students who may not receive prevention or treatment services. We adapted a resilience curriculum initially used for military-

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The other authors declare that they have no conflicts of interest.

The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the US Department of Veterans Affairs or the United States Government.

connected youth facing adversities related to parental wartime deployments, to meet the needs of low-income, predominantly racial and ethnic minority students in a large urban school district. In this article we describe the cultural adaptation, the implementation process, and the evaluation of the trauma-informed resilience curriculum using pre-post surveys and focus group discussions. We found significantly improved overall internal resilience scores, as well as significantly improved scores on subscales of problem solving and empathy among students receiving the curriculum. The focus groups revealed that the curriculum enhanced connections among students, as well as students and teachers, and served as a way to destigmatize mental health issues. The acceptability of the curriculum, as well as implementation successes and challenges are described. We provide suggestions for future steps for school psychologists and school social workers for implementing this curriculum.

Keywords

School; Trauma-informed; Stress; Coping skills; Resilience; Prevention

Introduction

Stress and Resilience

Exposure to stressful experiences among U.S. youth is unfortunately common. Seventy one percent of a nationally representative sample of youth in the U.S. reported at least one indirect or direct victimization incident in the past year when surveyed (Finkelhor, Ormrod, Turner, & Hamby, 2005). Low income, racial and ethnic minority youth may be at a particularly heightened risk for trauma exposure due to a number of risk factors, including poverty, exposure to community violence, family stress, discrimination, and racism (Alegria, Vallas, & Pumariega, 2010; Buka, Stichick, Birdthistle, & Earls, 2001; Gladstein, Rusonis, & Heald, 1992; Jaycox et al., 2002; Yoshikawa, Aber, & Beardslee, 2012). For example, Latino immigrant youth are found to have higher rates of exposure to violence and trauma-related mental health problems than the general population of youth, with traumatic experiences occurring in their home country, in the U.S., or both (Jaycox et al., 2002). Trauma exposure not only amplifies the risk of poor mental health outcomes, but also can affect health, academic performance, and a youth's ability to cope and thrive in already difficult environments (Bethell, Newacheck, Hawes, & Halfon, 2014). Despite the known negative effects of trauma and the availability of evidence based-treatment, many youth, especially poor and ethnic and racial minority youth, will go without detection and mental health treatment (Costello, He, Sampson, Kessler, & Merikangas, 2014; Kataoka, Zhang, & Wells, 2002).

Even so, not all youth who experience stressful life experiences develop mental illness or impaired functioning. Over the past several decades a growing body of research has sought to understand the manifestation of resilience among youth and how to support youth during times of stress (Fergus & Zimmerman, 2005; Luthar, Cicchetti, & Becker, 2000; Rutter, 1985). Luthar and Cicchetti define resilience as an individual demonstrating positive adaptation despite experiencing significant adversity (Luthar & Cicchetti, 2000; Luthar et al., 2000). Further, Fergus and Zimmerman describe resilience as a dynamic process: that of

an interplay between promotive factors (otherwise referred to as protective factors) and risk factors (often referred to as vulnerabilities), resulting in a positive outcome or lessening a negative outcome among youth (Fergus & Zimmerman, 2005). They describe promotive factors as consisting of assets, which include positive internal factors such as coping, and self-efficacy, and resources, which are external influences, such as parental support, teacher support, and community organizations (Fergus & Zimmerman, 2005). An ecologic approach to resilience recognizes that promotive factors and risk factors can operate across individuals, families, and the greater community, including schools and neighborhoods (Cicchetti & Lynch, 1993). As a result of this broad base of resilience research, there are a number of interventions designed to promote resilience among diverse populations affected by adversity and trauma (Beardslee, Gladstone, Wright, & Cooper, 2003; Lester et al., 2016; Lester et al., 2012; Luthar & Cicchetti, 2000; Rotheram-Borus, Lee, Lin, & Lester, 2004). In this article, we describe the adaptation and implementation of a trauma-informed resilience prevention intervention, the Resilience Classroom Curriculum, for low-income, predominantly ethnic and racial minority youth in a large urban school district (Garcia, De Pedro, Astor, Lester, & Benbenishty, 2015). In addition to describing our process of implementation through an academic-community partnered approach, we provide an overview of school preventive programs, the argument between fidelity and adaptation, and examples of frameworks for cultural adaptation that can be used in school settings.

School Prevention Programs

Schools, long considered an ideal setting for ‘frontline’ providers, (Burns et al., 1995) can be a naturalistic setting to address the ramifications of childhood exposure to stress and trauma. In fact, a trauma-informed school system, in which a school recognizes and responds to traumatic stress and strengthens protective skills for all students, is an approach that can reach traditionally underserved youth who have been exposed to trauma and adversity. A trauma-informed school approach is also in line with calls-to-action from experts and federal agencies to improve overall school climate (Centers for Disease Control & Prevention, 2009; Dynarski et al., 2008). School interventions that concentrate on bolstering resilience among students in a preventive manner can be an important component of a nationally growing recognition for schools to be more trauma-informed.

Universal preventive interventions implemented in schools have the power to reach a broad range of students, regardless of underlying diagnoses. For example there is a growing body of literature on universal social and emotional learning (SEL) programs. Durlak and colleagues’ meta-analysis of SEL programs found improved academics, decreased emotional distress, and decreased disruptive behaviors among students who received the SEL programs (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Another school prevention program, the Michigan Model for Health program, is a skills-based curriculum found to improve social and emotional health, interpersonal skills, and drug refusal skills (O’neill, Clark, & Jones, 2011). There are also universal school-based programs focused on anxiety, including delivering cognitive behavioral interventions within classrooms. The FRIENDS program, an Australian based cognitive-behavioral intervention program implemented among students between the ages of 10–13, was found to reduce reports of anxiety among students who received the cognitive intervention (Lowry-Webster, Barrett, & Dadds, 2001).

The Resilience Classroom Curriculum, formerly called the FOCUS Skill-Building Groups (SBGs), is an example of a resilience-building, trauma-informed preventive classroom intervention for high risk youth that has been implemented at-scale for military-connected youth. It was initially developed from a group modality of a trauma-informed resilience intervention for families affected by adversity (Garcia et al., 2015; Lester et al., 2011). The FOCUS (Families OverComing Under Stress) preventive intervention was developed using core components of the team's evidence-based interventions for families and youth affected by adversity, including an intervention for youth coping with a parent with HIV that showed improved youth adjustment, (Rotheram-Borus et al., 2004) an intervention for families dealing with a depressed parent that found improved family functioning, (Beardslee, Wright, Gladstone, & Forbes, 2007) and a school-based intervention for children facing the stressors of war (Layne et al., 2008). In addition to these foundational interventions, the FOCUS program grew out of a developmental framework recognizing the bidirectional influences of individual relationships within families, and within the greater social environment (Bronfenbrenner, 1986). The Resilience Classroom Curriculum is a flexible intervention designed for tailoring to the population receiving the program. It has been successfully delivered to over 140 schools with military-connected students. An evaluation surveying the implementation of the Resilience Classroom Curriculum among social work interns in military-connected schools demonstrated that the interns believed the curriculum improved student well-being and was useful and easy to understand for students (Garcia et al., 2015).

Culturally Responsive Programs

Despite high rates of trauma and mental health problems in racial and ethnic minority populations, there are few programs designed specifically for ethnic-racial minority youth, especially among schools (U.S Public Health Service, 2000). However, there is a growing body of research emphasizing the importance of cultural adaptation for interventions among specific racial/ethnic minority communities (Bernal, Bonilla, & Bellido, 1995). Scholars argue that behavioral interventions for minority youth should align with the cultural beliefs of youth and families, and acknowledge how culture, language, and family values can affect symptoms and acceptance of treatment (Pumariega, Rogers, & Rothe, 2005). Programs that are not adapted to the needs of minority communities risk "a mismatch effect," which can dampen program efficacy. Sources of mismatch may stem from the group receiving the intervention, from the staff delivering the program, and from factors within the community, such as community readiness (Castro, Barrera Jr, & Martinez Jr, 2004). Incorporating elements of cultural adaptation for programs improves acceptability, recruitment of populations, and treatment retention (Harachi, Catalano, & Hawkins, 1997; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Takeuchi, Sue, & Yeh, 1995).

Despite the argument for cultural adaptation, there is a known tension between adapting an intervention to the needs of a community and maintaining program fidelity (Castro et al., 2004; McKleroy, Galbraith, Cummings, & Jones, 2006). Although adaptation may lead to increased dissemination among populations, research is limited on adapting evidence-based interventions (EBIs) to minority communities, and on the effectiveness of culturally adapted programs (Lau, 2006). Diminishing fidelity may lead to decreased intervention effectiveness (Elliott & Mihalic, 2004; Kumpfer et al., 2002). Due to the critical need to increase access to

care, some recognize that it may not be effective, economic, or feasible to develop cultural specific programs for each population (Kazdin, 1993; Lau, 2006). Given the fidelity/adaptation tension, many advocate a balanced approach, including maintaining the core components of an intervention while adapting particular elements. For example, Lau and colleagues propose a “selective” and “directed” approach to program adaptation; adapting programs when there is evidence of a poor fit with the community, and using data to guide this adaptation (Lau, 2006).

Frameworks for Adaptation

Additionally as a response to the fidelity/adaptation argument, researchers have called for following established frameworks when adapting interventions, and detailing the process of adaptation, especially among vulnerable populations (Castro et al., 2004; Cederbaum, Song, Hsu, Tucker, & Wenzel, 2014). Two key examples of frameworks to guide adaptations are the Managing and Adapting Practice (MAP) model and ADAPT-ITT model (consisting of 8 phrases to inform adaptation), developed by the Centers for Disease Control and Prevention (CDC) as guides for adapting EBIs to reduce HIV risk in the community. These particular frameworks emphasize the value of community partnership and ongoing interaction with stakeholders (McKleroy et al., 2006; Wingood & DiClemente, 2008).

One fundamental framework used specifically for cultural adaptation is Bernal and colleagues’ guide for adapting psychosocial interventions for Hispanic populations (Bernal et al., 1995). They selected eight major “dimensions” of a treatment intervention deemed important for guiding cultural adaptation; language, persons, metaphors, content, concepts, goals, methods, and context, and provided examples of “culturally sensitive elements” for each dimension. Although this framework was developed for Hispanic populations, the elements can be used to guide adaptations of interventions for other racial and ethnic minority populations (Bernal et al., 1995).

Additionally, participatory research offers a framework for cultural adaptation that addresses health disparities (Chung et al., 2010). Community-based participatory research (CBPR) is a public health and research model that engages community members equitably throughout the research process, through utilizing two-way knowledge exchange, shared decision making power, and co-ownership (Israel, Schulz, Parker, & Becker, 2001; Minkler & Wallerstein, 2011; Viswanathan et al., 2004). Community partnered participatory research (CPPR) grew out of the principles of CBPR; it maintains equal community and academic partnership throughout the phases of research and program implementation (Jones & Wells, 2007). CPPR promotes that all stakeholders—including vulnerable populations—have an equal voice in guiding the research process. Through the use of active community partnerships, CPPR leads to solutions to problems that are in line with the community needs, and more sustainable than interventions simply delivered to a community (Jones & Wells, 2007).

School Adaptation and Implementation

Beyond adapting interventions to the community and specific populations receiving the intervention, schools offer additional challenges for adaptation of interventions. Although

schools can be an ideal setting to implement preventive interventions, each school carries its own school culture, available resources, leadership, and school climate (Hoagwood & Johnson, 2003). Domitrovich and colleagues (2008) proposed a conceptual framework of factors that influence the *quality* of implemented school interventions that also serve as a guide for *adapting* interventions to schools. This framework consists of three levels of factors that influence quality and outcomes of school-based interventions: macro-level factors, school-level factors, and individual-level factors. The authors argue that macro-level factors include federal, state, and district policies, state legislation, and district leadership and financial resources. For example, academic-community partnerships, and leaders who are champions of a program, fall under the category of macro-level factors. School-level factors include the organizational structure of the schools, the administration, school culture and climate, and classroom dynamics. Finally, individual-level factors include elements such as the psychological functioning of implementers, and the perceived acceptability of the intervention (Domitrovich et al., 2008).

While adapting an intervention to the school, system-level factors such as the overarching district goals, buy-in from administrative leadership, and experience and willingness of those implementing the intervention can all affect acceptability, sustainability, and outcomes. However, there is a limited literature base describing the challenges of adapting, implementing, and evaluating the effectiveness of interventions among schools, and particularly schools comprised of predominantly ethnic and racial minority youth (Stein et al., 2002). Stein and colleagues provide one foundational example of documenting the program design of a school mental health intervention for immigrant youth through a collaborative model with school stakeholders that has been widely disseminated, however called for more examples detailing the challenges inherent in implementing school interventions through partnerships (Stein et al., 2002).

“The implementation gap”—the estimated 17 years before new interventions are introduced into community practice—demonstrates the importance of understanding the process of successful implementation and adoption of interventions in real-world settings (Balas & Boren, 2000; Proctor et al., 2009). Lack of exploration of the needs and fit to the community, along with lack of organizational change, can lead to ineffective and unattainable outcomes (Bertram, Blase, & Fixsen, 2015). Hoagwood and Johnson argue that in order to close the gap between research and practice in schools, school psychology research must incorporate stakeholder input, and consider the characteristics of practitioners, the students, the service delivery, school organization, and service system. Indeed, school psychologists can play an essential role in describing, documenting, and understanding these processes to inform school intervention delivery and ultimately improve program sustainability and outcomes (Hoagwood & Johnson, 2003).

Purpose of the Evaluation

Given the success of the Resilience Classroom Curriculum among military-connected students, leaders in a large urban school district were interested in modifying and delivering the Resilience Classroom Curriculum to meet the needs of their urban, ethnically diverse students. The district leaders sought to provide a trauma-informed, prevention curriculum to

whole classrooms of students that would enhance social-emotional learning, while also improving overall school climate, both central goals of the school district. Using a CPPR approach to adapt the Resilience Classroom Curriculum to this high need, racial and ethnic minority population, the school partners implemented a pilot program and evaluation. As part of this community-academic partnership, this evaluation seeks to 1) describe the adaptation and implementation process, including successes and challenges, of delivering this classroom resilience curriculum; 2) present preliminary evidence that the Resilience Classroom Curriculum may influence key resilience skills among students; and 3) examine the feasibility, and the acceptability of implementing a trauma-informed resilience curriculum in schools. With the potential for school resilience curriculums to reach a vast number of youth who may experience trauma and stressors in their daily lives, this evaluation also seeks to inform school staff, such as school psychologists and social workers who may work in school settings.

Method

Setting

The curriculum was delivered in a large, urban school district in the Southwest, where the student population is 89% ethnic and racial minorities (Mexican and Central American heritage, and African American) and low-income, with 80% of the students qualifying for free and reduced lunch. The district graduation rate for the 2014–2015 school year was 72%. This district has been noted for its high level of violence exposure; a study of sixth grade students in the district demonstrated that 40% reported knife or gun violence in the past year (Ramirez et al., 2012). Two high schools within this district and located in the same area of the city, volunteered to pilot the Resilience Classroom Curriculum. During 2013–2014, School A had a total enrollment of 1,270 students, with 24% Latino students, 76% Black students, less than 1% White Students, and less than 1 % Asian students. School B had a total enrollment of 1,335 students, with 45% Latino students, 52% Black students, 1% White students, and 1% Asian students. At School A, 31% of the students had chronic absences (16 days or more absent), at School B, 32% of the students had chronic absences.

Resilience Classroom Curriculum

The Resilience Classroom Curriculum consists of nine modules and is taught during class time in a group-based, adaptable format delivered by school social workers. Teachers are encouraged to participate in the sessions, as they gain knowledge of their students' experiences, which may impact academic achievement. Teachers can also learn the curriculum and implement skills during their classroom routines. The modules generally last 45–55 minutes, can be split into two 25-minute modules if needed, and are also delivered in a flexible manner, such as through nine consecutive weekly modules or once a month along a nine-month school calendar year.

The modules teach the resilience skills of emotion regulation, communication, problem-solving, goal setting, and managing stress reminders. Stories, written in a narrative blog style format about stressful situations that teenagers may encounter, are used as a

communication tool to foster discussion, practice resilience skills, and offer opportunities to provide psychoeducation about stressors that commonly affect adolescents (see Table 1).

For example, students learn the story of *Cody*, a youth who is struggling with the aftermath of his mother's car accident and resulting post-traumatic stress disorder (PTSD) symptoms that impact the entire family (Module 7). Through Cody's narrative blog the students learn about the symptoms of PTSD, discuss stress and trauma reminders, and develop strategies for supporting one another. In a later session of the curriculum (Module 8), students have the opportunity to write their own narrative, through creative mechanisms such as a written blog, video blog, or poems. Throughout the curriculum, students learn methods for talking about and coping with difficult experiences. The events on their narrative are linked to the FOCUS Feeling Thermometer, which rates situations from comfortable to highly distressed via a color-coding and numerical scheme. The FOCUS Feel-Think-Do triangle tool is also taught to examine the relationship between feelings, thoughts, and behaviors. The curriculum also utilizes a range of fun and interactive classroom activities to teach skills, such as learning to set realistic and achievable goals via a ring toss activity.

The Resilience Classroom Curriculum Adaptation

In line with our community-academic partnership with the school district, we used a community-partnered participatory research (CPPR) approach to the adaptation and implementation process. A community-partnered approach that involves students and school staff can ensure that the curriculum is culturally sensitive for the students participating in the intervention and for the school system in which it is being delivered. Previous studies have shown that this approach can be valuable in delivering programs to ethnically diverse student populations and in systems such as schools, where there are competing demands and organizational factors that need to be considered (Kataoka et al., 2006; Stein et al., 2002).

The CPPR framework was utilized in several ways. First, as part of the CPPR framework, the community partner, the school district, identified the key problems facing students in the district—trauma exposure, high discipline and drop-out rates—and selected to implement the Resilience Classroom Curriculum as a preventive intervention to address these issues. Principals and district leaders selected the schools and classrooms that would benefit most from the curriculum. Second, the curriculum was adapted and implemented through a community-partnered approach. As part of the school district's quality improvement efforts to improve the prevention services on campus, two focus groups were conducted with students at one of the high schools prior to participating in the internal evaluation. The purpose of meeting with the students was to gather insight and information to adapt the curriculum to be relevant to predominantly racial and ethnic minority students in a large urban school district. The academic team and the school partners met with students together. Written notes were taken during the focus groups. During each focus group, students read through two blogs developed for the original curriculum and discussed if the blogs and characters resonated with themselves. Students were asked to reflect about their initial feelings about the blogs, their thoughts about the story and style, and if they could relate to the characters. After conducting the focus groups, team members discussed the recommendations, suggestions, and critiques as voiced by the students, and adapted the

blogs prior to piloting the curriculum. Specifically, examples in the blogs were changed to reflect the potential experiences of largely underserved students in an urban district. For example, details of a character going snowboarding for vacation referenced in one blog entry was changed, given that many students in this district had not had this experience.

Third, the evaluation of the curriculum was conducted using participatory evaluation methods (Israel et al., 2001). The school partners chose the evaluation outcomes that were important to the school district, including social and emotional learning, and school support, while the academic team provided support in the evaluation and analysis. Following the curriculum implementation, separate focus groups were held with students who received the curriculum, and social workers who had administered the curriculum, for feedback, discussion of challenges, and recommendations for improvement, as part of the two-way exchange of knowledge (Jones & Wells, 2007).

Although the curriculum was not adapted for a specific ethnic/racial minority group, it was adapted for a specific group of youth: predominantly low-income, ethnic and racial minority, urban students. By applying Bernal's framework of cultural adaptation (Bernal et al., 1995) to our approach, several major "dimensions" of the curriculum were adapted by the academic-community team to the needs of predominantly urban, low-income, and ethnic and racial minority high school students. This includes the dimensions of "metaphors," "goals, and "methods." For example, in the dimension of metaphors, elements of the intervention, such as language and examples utilized in the curriculum were adapted to be consistent with idioms or ideas more relevant to the student population. For the dimension of goals, objectives of the curriculum, such as communication, and problem solving, were framed in ways that were important and culturally relevant to students. For the dimension of methods, the school social workers adapted the teaching and delivery of the curriculum to the particular culture of the classrooms, for example, employing more lively activities if needed for more restless classrooms.

Curriculum Training

Two school-based social workers (one at each high school), who are both licensed clinical social workers and employees of the school district, delivered the curriculum. Prior to implementation, they attended the standard one-day Resilience Classroom Curriculum training, and both had extensive backgrounds in delivering evidence-based therapies, and histories of providing school-based mental health services to students. The Resilience Classroom Curriculum training provided an overview of the theory of the intervention, the mechanisms of resilience as identified in the scientific literature, and practical ways to implement the curriculum. The training was delivered using didactic lecture, videos, demonstration, discussion, role-plays, and experiential exercises. After the training, the two school-based social workers participated in consultation calls with the UCLA Resilience Classroom Curriculum Master Trainers and were certified as Resilience Classroom Curriculum providers.

Curriculum Implementation and Evaluation

The principals at each high school selected 9th grade, English-speaking classrooms to receive the curriculum as this is a critical year to prevent dropout. At School A, the curriculum was delivered during advisory period, which is class time without any instruction where students have time to work on homework. At School B, the curriculum was delivered during health class, which was predominantly 9th graders but had a few students from other grades as part of the class. Four classes at each school participated in the curriculum, with eight classes in total participating across the two schools. Baseline surveys demonstrated that 54 students from School A participated in the curriculum, with a mean number of 13.5 students per class. At School B, 46 students participated in the curriculum with a mean number of 11.5 students per class. The school-based social workers delivered the curriculum in nine consecutive, weekly sessions and administered surveys before and after the curriculum to evaluate the curriculum on key skills identified as priority areas by the district. One hundred students completed the pre-survey, 54 students from School A, and 46 students from School B. Among these students, 60 students completed the post-survey, 33 from School A and 27 from School B.

Surveys—The social workers administered pre- and post-surveys to evaluate the curriculum on key social-emotional skills and school climate elements, as well as to obtain the students' perception of the curriculum. Social workers handed out the surveys to each classroom prior to the first session and after the last session. The surveys included demographics (e.g., age, grade, and class). Students were also asked where they usually go for help, and how often they had received counseling to help deal with problems, stress, or substance use in the past year. In addition, the measures described below were collected to evaluate the curriculum. The University of California Los Angeles (UCLA) Internal Review Board approved this study on the collected survey data.

Post-traumatic stress disorder (PTSD): Students were screened for PTSD using the Primary Care PTSD screen (PC-PTSD), which is a widely used screen to assess for PTSD within primary care settings (Cameron & Gusman, 2003). The scale consists of four "yes/no" questions inquiring about the four main PTSD domains (nightmares/intrusive thoughts, avoidance of thinking about the situation, feeling on guard, and numb/detached) in response to a frightening event. Each question starts with the statement, "In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you," followed by phrases such as "were constantly on guard, watchful, or easily startled." Participants receive a point for each item endorsed. A response of "yes" to any three items was used to indicate a positive screen, which is the criterion used within the Veteran Affairs Health System and consistent with prior studies, including among Latino participants (Cameron & Gusman, 2003; Vera et al., 2012). Analysis shows a sensitivity of 0.78 and specificity of 0.87 with a cut-off of 3 points (Cameron & Gusman, 2003). Among the present sample, Cronbach's alpha is 0.69.

Internal Assets: Internal assets (used to measure internal resilience) were assessed using the Resilience Youth Development Module (RYDM) of the California Healthy Kids Survey (CHKS). This survey is delivered in school districts across California and is used to measure

protective and resilience factors among students by assessing internal assets and environmental assets (including school supports). The original internal assets scale consists of 18 items, however Hanson and Kim (2007) dropped several items from the internal assets score based on differential item functioning across race and gender (Hanson & Kim, 2007). The 12-item internal assets scale is composed of four subscales: self-efficacy, empathy, problem solving, and self-awareness (Hanson & Kim, 2007). A combined internal assets score was measured as well as the subscales. Students were asked to provide responses from “Not at all true,” “A little true,” “Pretty much true,” and “Very much true.” The RYDM is scored by assigning each response option a value ranging from 1–4 and summing across items comprising each of four subscales with higher scores corresponding to greater resilience. Sample items include statements such as, “I can work out my problems,” and “I try to understand how other people feel and think.” Among the present sample of students, Cronbach’s alphas for the pre-survey subscales associated with empathy, problem solving, self-awareness, self-efficacy, and the total scores are 0.81, 0.58, 0.79, 0.64, and 0.80, respectively.

School Support: School support and school climate (i.e. environmental assets) was measured using a School Supports Scale, which consists of six items that inquire about the support from a teacher or adult at the school. This scale is comprised of items from the Caring Relationships and High Expectations scales of the RYDM, identified by factor analysis by Hanson and Kim (2007) (Hanson & Kim, 2007). Students pick responses from “Not at all true,” “A little true,” “Pretty much true,” and “Very much true,” which are assigned a value from 1–4. The scale is obtained by summing scores on six items related to caring relationships and high expectation. Each item starts with the statement, “At my school, there is a teacher or some other adult” followed by items such as “who really cares about me,” or “who always wants me to do my best.” Among the present sample, Cronbach’s alpha for the pre-survey school support scale is 0.92.

Student Perception of the Curriculum: A four point Likert-scale ranging from 1 “Not at all true” to 4 “Very much true” was used to assess student perception and satisfaction with the curriculum. The five items asked if students learned ways to feel less stressed, communicate better with others, set personal goals, solve problems that came up in their lives, and if they would recommend the curriculum to other students.

Focus Groups—Following the implementation of the Resilience Classroom Curriculum for this general student population, students and social workers volunteered to give feedback about this adaptation in separate focus groups. Focus groups were selected to promote sharing of opinions in participants’ own words. Focus groups also address potential power dynamics with the group moderators by empowering participants to build on one another’s ideas and interact with each other instead of with the moderator (Israel et al., 2001). Fostering a comfortable environment where participants felt empowered to express their own opinions about the curriculum was particularly important for the focus group with students, given their age. Both focus groups were conducted in classrooms at the schools where the curriculum was implemented, as familiarity of settings can enhance involvement in the discussions (Israel et al., 2001).

For the student focus group, students who had received the curriculum at School A were invited to participate by the school social worker. Nineteen students from School A volunteered to participate in the student focus group, which included 11 females and 8 males, and reflected the demographics of the school. For the social worker focus group, social workers who had participated in the Resilience Classroom Curriculum training and who had implemented the curriculum were invited to voluntarily attend. Ten school-based social workers volunteered to take part in the social worker focus group, including the two social workers who implemented the curriculum at School A and School B.

Trained facilitators on the research team led the student focus group (led by RM and LM), and the social worker focus group (led by RM, LM, and SK). Each focus group lasted approximately 60 minutes. The student focus group facilitators used a semi-structured interview guide that asked the students about the following topics: experience with the curriculum, what they liked best and least about the curriculum, and recommendations for improving the curriculum. For the social worker focus group, the facilitators followed a semi-structured interview guide that questioned social workers about: social workers' experience with the curriculum and how the curriculum fit with the school, how the curriculum worked and did not work for the students, and recommendations for improving the curriculum for students. The groups were audio-recorded and facilitators took notes during the focus groups.

Analysis

Surveys—Descriptive statistics including frequencies, percentages, means and standard deviations were calculated for the total sample and separately for subsamples consisting of students who completed both pre- and post-surveys and students who completed only the pre-survey. To compare these two subsamples, chi-square tests and t-tests were used for categorical and continuous variables, respectively.

To assess changes in internal assets from the pre- to post-survey time points, linear mixed-effects regression models were constructed for each of the four RYDM internal asset subscale scores and the total score with classroom-level random intercepts to account for dependence among students within the same classroom. All models were fit using available data from the 60 students who completed both a pre- and post-survey. Survey time point was included as a fixed effect and improvement was assessed by estimating the change in score from the pre-survey to the post-survey. The mixed-effects modeling approach selected accomplishes the same objective as a paired sample t-test but is necessary in order to appropriately account for the nested structure of the data (Atkins, 2005). Analogous linear mixed-effects regression models were constructed to examine changes in school support. Among the sample used to fit each model, Cohen's *d* effect sizes were calculated by dividing the mean change in score from pre- to post-survey by the corresponding standard deviation (Cohen, 1988). To examine changes in the prevalence of a positive PTSD screen, logistic mixed-effects regression models were similarly constructed with classroom-level random intercepts. Based on these models, odds ratios were estimated to assess decreases in the odds of a positive screen from the pre-survey to the post-survey time point. For both linear and logistic regression models, unadjusted models were fit initially followed by

models adjusting for student age included as a fixed effect. Results from age-adjusted models are presented.

All analyses were conducted using SAS software, Version 9.4. MIXED and GLIMMIX procedures were used to fit linear and logistic mixed effects models, respectively.

Focus Groups—The focus group transcriptions were initially reviewed by members of the research team (RM, LM, and SK). The constant comparison method from grounded theory was used to identify themes among the social worker and student feedback on the curriculum (Glaser & Strauss, 2009). Analyst triangulation, a method of using multiple analysts to analyze the data, was used as a check against interpreter bias (Patton, 1999). Two members of the research team (RM and LM) independently reviewed the transcripts to identify preliminary main themes from the data and then met to develop consensus themes. Three research team members (RM, LM, and SK) met to discuss the content of the themes and through iterative discussion, resolved discrepancies and refined the themes into mutually agreeable sub-themes.

Results

Sample Characteristics and Change Scores

Sample characteristics and pre-survey measures are presented in Table 2. The final sample consists of 54 students from School A and 46 students from School B. The majority of students (76%) were 14–15 years old at the time of program implementation. Eighty percent of students reported never or rarely using mental health services within the past year, with 19% of students screening positive for PTSD on the pre-survey.

With respect to student age, high school attended, mental health service use, positive PTSD screen, resilience scores, and school support, students who completed both the pre- and post-survey were not significantly different from those students who completed only the pre-survey. Although not statistically significant, students who did not complete a post-survey screened positive for PTSD at a higher rate and utilized mental health services more frequently than those who completed both assessments.

The estimated changes in internal assets and school support scores from the pre- to the post-survey time point are summarized in Table 3. In models adjusting for student age, significant improvements in empathy and problem solving were observed (0.68 ± 0.28 , $p = 0.0169$ and 0.93 ± 0.28 , $p = 0.0014$, respectively). Significant improvements in overall internal assets were also observed through estimated increases in the total score (2.32 ± 0.63 , $p = 0.0006$). Improved school support was reported following implementation of the program although these changes were not statistically significant (1.07 ± 0.56 , $p = 0.0631$). Effect sizes for improvement in problem solving and overall internal assets were medium in size with a lesser effect size for improvement in empathy. Relative to the pre-survey, lower odds of a positive PTSD screen were observed on the post-survey although this observed difference was also not statistically significant (adjusted OR, 95% confidence interval: 0.86, 0.28–2.68). In total, 8 students screened positive for PTSD on the post-survey representing 13% of the students who completed the post-survey.

Student Perception of the Curriculum

The Likert-scale responses on student perception of the curriculum revealed that 66% of students who took the post-survey felt it was “pretty much” or “very much true” that they had learned ways to feel less stressed. Seventy-five percent of students felt it was “pretty much” or “very much true” that they had learned ways to communicate with others and 83% felt it was “pretty much” or “very much true” that they had learned how to set personal goals. Seventy-six percent of students felt it was “pretty much” or “very much true” that they had learned how to solve problems that came up in their life. Finally, 76% of students reported that it was “pretty much” or “very much true” that they would recommend the curriculum to other students.

Acceptability

Overall, students and social workers participating in focus groups voiced a general positive sentiment about the curriculum with several key themes emerging: that the curriculum was helpful, fostered support and connection, provided destigmatization, and had positive effects on teachers.

Helpful—First, students felt the curriculum was helpful, especially in areas of goal setting, productivity, and dealing with stress. One student explained how it was useful to learn how to set goals, “At first it was [just] a goal. That’s it. But now it’s steps to get to that goal.” Students also described how the curriculum encouraged thinking and self-reflection, “It made us think a lot and it made us think about our future.”

Support and Connection—There was also a general theme among the students and social workers that the curriculum fostered a sense of support. As one student explained, there was comfort in knowing that there would be support built in during the school day: “We have something to fall back on in case we are having a bad morning or something.” Students also highlighted feeling enhanced support from their classroom teacher as a result of the curriculum. For example, a student described how a teacher started utilizing the feeling thermometer and curriculum language to check on students and inquire about their internal states. “Teachers would always ask you how you did on the feeling thermometer... The teachers always ask you how you are feeling and why you are feeling like that.”

The school health social workers echoed the students’ sentiments that the curriculum fostered a sense of support and described witnessing enhanced connections as a result of the skills taught. They described that the curriculum increased connections among students, between students and the school social workers, and between students and teachers. Social workers reported that connections grew as students shared personal experiences and the intensity of their feelings on the feeling thermometer with one another. One social worker gave an example of how students felt comfortable sharing their own experiences in the context of reading the blogs: “One student shared that his family was homeless within the group, particularly in that group there was a number of really intense situations that came up that invoked emotions. There was a fair amount of tears in my first round.” Another social worker explained how those who were experiencing emotions in the “high zones” drew empathy from peers. “Some of them that were in the higher zones promoted empathy [from]

their peers. The others peers were just kinda mindful, ok, this person is struggling this morning so we are going to be nice, we are going to be extra conscious.”

The social workers also reported that the curriculum provided an avenue to connect with students who they would not necessarily connect with if the students did not present to them for individual mental health visits. “I think it’s a really good way for us ... to connect with the kids. Because usually we are waiting for a crisis and then when things explode we get a referral.” Another social worker described the impact she discovered the curriculum had on a student who she may not otherwise have interacted with outside of the classroom, “This one young lady, she hardly participated at all ... but in her thank you note she said we helped her deal with some personal issues and struggles she was going through and so she really appreciated us coming and working with the class. I would never have known that had that kind of impact on her because she was just kinda there. So I think it has more of an impact on them then we may really realize.”

Further, social workers described that the curriculum enhanced connections between students and teachers, especially when the teacher participated in the sessions. One social worker gave an example of a classroom that did not have a strong connection between the teacher and students. She found however, as the teacher participated in activities with the students, the students developed more empathy towards the teacher. “It ... not only gave her more empathy towards the students, just hearing what they had to say, but it also deepened their connection with her, since it also let her be a participant in some way so she could also share and let her guard down ... [T]he kids would just be like oh, she’s a real person.” However, not all social workers reported a change in *connection* between students and teachers. Some reported difficulties engaging the teacher in participating or listening, which may have impacted improving relationships with students.

Destigmatization—Another theme that resonated specifically among the social worker feedback was that the curriculum offered a rare opportunity to destigmatize mental health issues and encourage seeking help from school social workers. They felt that delivering the curriculum gave students a better understanding of what kind of work the social workers did with students, and normalized why students would work with social workers at school. As one explained, “After FOCUS [Resilience Classroom Curriculum] they knew me and had a de-stigmatizing effect on the students. They’re thinking she’s not working with him because he’s crazy, but they’re working on a problem solving ... their meeting might be related to what we’re doing in class.”

In some cases, this destigmatization and increased contact with school mental health social workers delivering the curriculum led to enhanced engagement in mental health services. Some students felt more comfortable self-referring as a result of the discussions and interaction with the social workers, “This is a way for us to connect with them and hopefully for some of the mental health disorders that are less noticeable on the surface, it allows them to build that connection and self-refer.” Social workers also discussed plans to use the Resilience Classroom Curriculum as a chance to identify students who would benefit from a trauma group intervention already delivered by the school district (i.e., Cognitive Behavioral Intervention for Trauma in Schools).

Positive Effect on Teachers—Although the curriculum was directed towards students, many social workers described witnessing an indirect, positive effect on the teachers. They reported that some teachers enjoyed the curriculum. Others felt that teachers learned skills from the curriculum, even if they were just listening to the session. One health teacher began catering the class curriculum to match that week’s module. Some social workers used real-time situations occurring in the classroom between the students and a teacher as opportunities to use the skills taught in the module to improve the interaction. One social worker captured the value of being able to teach in the moment during a situation when a teacher and child both escalated, “These things happen all the time in classrooms, how can you use this as a way to deal with your own emotions and understand that other people also have emotions.” The group pointed out however that it took skill and comfort with the curriculum to handle situations such as the one described.

Feedback on Curriculum Components

Blogs—Both groups relayed overwhelmingly positive sentiment about the blogs. Students described that the blogs told a story, were easy to relate to, and that they found it helpful to read about the problems of other students. One student captured how the struggles of the characters in the blog helped put her own problems in perspective, “It may seem bad, but I like reading about others’ misfortunes so mine don’t feel as bad.” Several students suggested adding even more blogs to the sessions and described how the blogs helped “learn about people’s problems and how they overcome them.”

Interactive Games—Both students and social workers voiced strong enthusiasm about the games. A major theme emerged that students liked the games because they were *interactive* and also allowed students a chance to move around. For example, one student highlighted that he liked the ring toss specifically because it gave him the opportunity to “get out of my seat.” A few participants liked the games because of the chances to win prizes and use raffle tickets. However, although games were frequently cited as an activity the students liked best, some participants pointed out that they disliked losing or making a mistake on games. Overall, students recommended integrating more dynamic activities in the curriculum. They advised this would help students have more energy and engagement, “If you are inside on a chair you feel sleepy, tired, don’t pay attention. More activities make you active.” They also suggested that some of the activities could be done outside.

Similarly, several social workers described that particular classrooms, such as classrooms that were “antsy” or had trouble staying still, needed more interactive activities than scheduled in the sessions. Some social workers adapted activities on their own to be more interactive. For example, one social worker astutely modified the reading of the blogs to make it more interactive for the class, “We did the popcorn method. One student read the first portion, another volunteers to read the next.”

Writing in the Journals—Some students struggled with writing their own blog or writing in journals that some social workers elected to use as a central location for the materials covered. This was not the case for all students however, as some felt that journaling helped encourage them to express their feelings. It seemed that the act of writing itself could be

tedious for some students, as one explained, “You had to do a ton of writing, you had to write the whole time.” Students also verbalized concerns about confidentiality with the journals, as one student illuminated, “sometimes you might think that other people might read it.” Another student identified concern that the journals used by that particular class might be potentially read by others. Social workers also brought up that for some students writing could be difficult. One social worker noted that about half of the students in her class did not fully participate in the activity of writing one’s blog, or wrote about one sentence. Social workers voiced different reasons for this: that perhaps writing was not as interactive or “exciting” for the students, students had a hard time conceptualizing writing their own blog, or had limited time and space to emulate the blogs they had been reading that tended to be “heartfelt.” Others suspected that writing one’s own emotions was difficult for students. Despite these struggles, social workers used innovative modifications for the writing task, some substituted a graphic narrative timeline activity from the curriculum used for elementary age students for the blog, while others let students who did not participate in the writing session still verbally share their story.

Talking about feelings is hard—Talking about feelings was difficult among many students, as one student described, “Going deep inside, I didn’t like doing it.” Additionally, a theme emerged that students felt uncomfortable sharing their feelings in the *classroom setting*, with some students highlighting a specific concern about confidentiality among peers. One student elucidated how it is difficult to share feelings with others, even to one’s own friends, “Because if you are around like all your friends, you don’t want them to know stuff.” Yet, although many students described struggling with the feelings aspect of the curriculum, when probed further, a few students could describe some positive aspects of talking about their feelings. This included learning to talk to others about emotions, feeling less stress when talking about feelings, and also learning the cathartic aspect of sharing feelings, “you let it out.”

Implementation Challenges

Pre-existing class dynamics—One robust theme that emerged throughout the group was that social workers stepped into classrooms with pre-existing dynamics. “You’re kinda walking into, whatever culture the teacher has built up in the classroom.” A social worker explained, “A lot of kids didn’t like the teacher, there was a big lack of classroom management, and the kids just really weren’t connected to the teacher.” Several social workers described difficulties with poor school attendance and disruptive behavioral problems. Yet, many social workers were pragmatic about what they could change. One social worker cancelled her session when a substitute was present as the class was too disruptive. Another described the importance of setting a structure to help shift students and the teacher into the mindset of the groups, “Set your own rules, you make sure that you try and keep it a nice climate, keep it positive.”

Obtaining teacher-buy in—Social workers stressed that teacher buy-in was important for success. “If the teacher is on board and more willing to set up a supportive environment of what we’re doing, that really helps ... get the teachers to understand what we’re doing beforehand ... to go make the relationship.” They emphasized identifying the teacher’s role

during the groups and having on-going communication with the teacher to build support for the activities. “It’s a longer discussion, you know what, you’re a part of this too ... it’s not just ... time to catch up on grading ... you gotta help. I needed [the teacher’s] support to come in and intervene.” Social workers also felt it was important to explain to the teacher how the curriculum may differ from other classroom time. One way this was done was by explaining the curriculum to the classroom teacher before the group. This discussion also allowed the social workers to get feedback from the teachers about relevant issues about the classroom to integrate into the group content. Some teachers even asked for the full curriculum ahead of time so that they could integrate the content of the curriculum into their academic lesson plans for that week.

Discussion

Our mixed methods description of a trauma-informed resilience curriculum for high school students demonstrates an iterative process of adaptation for a high-risk urban population of students through a strong academic-community partnership. This pilot evaluation provides early evidence that internal resilience (measured as overall internal assets), as well as specific subscales of empathy and problem-solving skills, may improve in high school students who receive the Resilience Classroom Curriculum, but future controlled studies are necessary prior to making any determination regarding efficacy. The curriculum showed acceptance and utility among predominantly low-income, ethnic and racial minority youth in a school district with high levels of violence exposure. The Resilience Classroom Curriculum aligns with the resilience framework proposed by Fergus and Zimmerman (2005) of developing internal assets and bolstering supportive resources among youth who are exposed to trauma and adversity, and fits within the model of trauma-informed schools.

The main skills taught in the Resilience Classroom Curriculum, including problem-solving, goal-setting, emotional regulation, communication, and managing stress reminders, were found in other studies to relate to improved resilience and positive youth outcomes (Beardslee et al., 2007; Lester et al., 2016; Rotheram-Borus et al., 2004). Findings from the Teens and Adults Learning to Communicate Intervention, a foundational preventive intervention for the Resilience Classroom Curriculum, demonstrated that adolescents participating in the coping skills intervention had fewer risky behaviors and improved functioning compared to the control group at six year follow-up (Rotheram-Borus et al., 2004). The ability to engage in self-reflection, and to consider situations from multiple viewpoints, has been shown to enhance resilience in youth of depressed parents (Beardslee et al., 2007). Additionally, Cicchetti and Rogosch’s research with maltreated youth suggests that the skills of self-reliance and self-confidence may contribute to resilient adaptation among youth with adversity (Cicchetti & Rogosch, 1997). Self-esteem, planning and decision making, and achievement motivation are all found to be predictive of positive youth outcomes (Scales, Benson, Leffert, & Blyth, 2000). Problem-solving skills are known to be protective against the adverse effects of peer substance use among youth (Botvin, Malgady, Griffin, Scheier, & Epstein, 1998). Further, programs that reduce distress among youth have been found to also have the additional benefit of improving academic outcomes (Kataoka et al., 2011). Although we did not measure the effect of the curriculum on substance use, or

academic outcomes, it would be beneficial to evaluate these important outcomes in the future.

There are a growing number of school-based interventions to address resilience. For example, the Social Decision Making and Social Problem Solving Intervention is a program designed to teach elementary school students decision making and problem solving skills to reduce the risk of engaging in risky behaviors (Elias, Gara, Schuyler, Branden-Muller, & Sayette, 1991; Ungar, Russell, & Connelly, 2014). Life Skills Training is also a classroom curriculum designed to build skills to resist peer pressure to use substances through developing problem solving and decision making skills, building self-esteem, and developing positive relationships. Students receiving this curriculum were found to have lower intentions to use substances (Botvin, Schinke, Epstein, & Diaz, 1994). In a review of the literature, Ungar and colleagues (2014) identified 36 school resilience programs implemented internationally. However, the authors found that many of the interventions showed mixed effectiveness on outcomes such as school engagement and academic performance (Ungar et al., 2014).

Many school interventions do not include a cultural or contextual component, or determine what is truly the best fit for the population (Ungar et al., 2014). Additionally, other resilience programs are not trauma-informed and may miss skills that are relevant to populations with high levels of trauma exposure. A key strength to our approach was the unique long-standing academic-community partnership with the school district, which provided a foundation for tailoring and delivering the curriculum. We drew upon this academic-community partnership and utilized a community-partnered approach to continuously improve and adapt the curriculum to “fit” the school community. The impact of this adaptation was illustrated in several ways during our evaluation and was generally well-accepted by students and the schools. First, the curriculum was adapted to the cultural experiences of the students by partnering with students in the form of student work-groups and adapting the blogs and examples to the experiences of students in the schools. The blogs were well-received by both students and school social workers, who felt students were able to relate to the characters and experiences of the blogs. Additionally, implementation of the curriculum required flexibility and a willingness of the social worker to adjust the program to the needs of the specific classroom. As an example, although writing the individual blog was an integral part of the original program, the social workers determined that many students in their classroom struggled with writing and adapted this activity for those who needed it, including substituting a narrative timeline activity or allowing students to share their story out loud.

The curriculum was also responsive to the needs of the school. During this implementation process, the principals were involved in identifying classrooms where they felt the curriculum would be most helpful, which generally were classrooms with more behavioral disruptions. The curriculum also had to fit within existing classes and be delivered in a flexible manner, in order not to disrupt the scheduled academic programming. Given the already high demands placed on teachers in this school district, it was decided that teachers would not be required to administer the curriculum nor attend sessions, in order to minimize burden. Being responsive to the needs of the principal and of the particular school promoted shared trust and partnership and also contributed to the success of the program.

Future Steps

Our implementation and evaluation of the Resilience Classroom Curriculum revealed important future steps to address in the next phase of the adaptation. As the focus group discussions after implementation revealed, many students required help with the writing activities and clearly benefitted from increased activities. Future directions include incorporating less writing, which can be a difficult activity for students who struggle academically or do not speak English as a first language. Instead students could share their story out loud, design a more visual blog or photo blog, or create a timeline. Additionally, for classrooms where concentration or sitting still may be difficult, incorporating more interactive activities would be helpful. Finally, given the reported positive effects on the teachers who participated, future steps may include incentivizing teachers to participate, at least passively, in the curriculum to improve the well-being of the whole classroom. It would also be advantageous to add an extra session to the curriculum specifically for teachers, to allow teachers to develop an understanding of the curriculum, and potentially help incorporate the skills into the classroom.

By remaining sensitive to the adaptation/fidelity tension of preserving core elements of the intervention, while adapting elements that may fit poorly to the population, this curriculum can be further adapted for more specific populations within schools. For example, unaccompanied minors from Central America are a growing subpopulation within our school district with high levels of trauma (Office of Refugee Resettlement, 2016). This trauma exposure can stem from family, community, or gang violence in the countries of origin, dangerous conditions such as physical and sexual assault, kidnapping during the journey to the U.S., separation from family members, and detainment or placement in shelters after entering the U.S. (Pérez, 2014; UN High Commissioner for Refugees, 2014). The Resilience Classroom Curriculum can be adapted for this specific population by utilizing Bernal's dimensions of adaptation (Bernal et al., 1995). For example, as part of the dimension of language, providing translations of the curriculum materials. Additionally, for the dimension of content, presenting blog examples tailored to the cultural experiences and stressors encountered in the countries of origin, during migration, and after re-settlement in the U.S. This could include blog entries about the transition to a new country, city, and school, or about separating from family members and living with new family members, as many unaccompanied minors in the U.S. experience. Lastly, the dimension of context must also be taken into account for this population, through considering the effect of migration and resettlement on the students while utilizing tools of the intervention. Other future possibilities for curriculum adaptation in schools include adapting the elements of the curriculum for specific classrooms such as special education classrooms.

Limitations

Although our evaluation revealed important outcomes and issues with implementing a resilience curriculum in the classroom setting, there are several limitations. First, given the needs of the school district, we implemented the curriculum in two classrooms but did not have a control group. Thus our results could potentially reflect natural improvement of the students and the effects of the curriculum will need to be tested further using a randomized controlled design.

Second, only 60% of students who completed the pre-survey, also completed the post-survey. While we did not find statistically significant differences between these two subsamples with respect to the variables that were collected, there could potentially be underlying differences between the students who completed the post-survey and those who did not. Additionally, the low attendance we observed at these two time points may imply that a substantial proportion did not complete all the modules, therefore the curriculum could potentially be substantially more effective if all students completed all of the sessions. A limitation of our evaluation is that the social workers did not take attendance at each session. In the future, recording attendance during each curriculum session will inform further understanding of module completion and attrition.

There may be several reasons for the high attrition rate between the pre-survey and post-survey. Attrition in the curriculum evaluation may echo the greater attendance problems at the school- and district-levels. The social workers reported that school attendance was a significant problem on these campuses generally and did not appear uniquely different due to the delivery of the curriculum. Unlike implementation at a clinic site where an adaptation may greatly enhance engagement and attendance at the intervention, the attendance at this school intervention likely reflected the students' engagement in school.

Third, our implementation occurred in a school district with a significant number of well-trained school social workers and a robust infrastructure for delivering school-based services. The success of the implementation may not be generalizable to other districts with a less developed mental health infrastructure in place.

Conclusion

Minority youth are at risk for experiencing a number of traumatic stressors. Resilience interventions that bolster youth coping skills, including skills that support the management of stress, trauma and loss reminders, are a promising way to reduce the risk of negative mental health and academic outcomes associated with adversity. We adapted and implemented a resilience curriculum among predominantly underserved, ethnic and racial minority youth through a robust community-academic partnership and found suggestions of improved resilience outcomes, and overall satisfaction among students and school social workers delivering the intervention. Our findings indicate that resilience-building interventions delivered in a school setting can serve as an important tool in strengthening the emotional well-being of students who may traditionally face barriers to care, and ultimately improve the academic and social learning environment. Further, resilience-building interventions delivered by school social workers can serve an important function of destigmatizing mental health issues and encouraging engagement in school mental health services.

As an important part of the school system and key link between the school administration and mental health, school psychologists can play an integral role in implementing school-based mental health programs through a public health approach, build capacity for mental health promotion, and adapt programs to address the cultural and contextual needs of students (Nastasi, 2004). School psychologists are well suited to build and deliver school-

based resilience curriculums tailored for diverse minority students, as well as continue to champion the emotional well-being of minority students in a preventive framework.

Acknowledgments

Disclosure of Potential Conflicts of Interest:

This program was supported in part by philanthropic support from the UCLA Center for Child Anxiety Resilience Education and Support, and the UCLA Nathanson Resilience Center, which provided support for manual development, training, and evaluation.

Dr. Ijadi-Maghsoodi was supported by the VA Office of Academic Affiliations through the VA Advanced Fellowship in Women's Health at the time of the program implementation and evaluation. She receives funding from the National Institute on Drug Abuse of the National Institutes of Health under K12DA000357.

Dr. Sheryl Kataoka receives funding from SAMHSA TSA Center for Resiliency, Hope, and Wellness in Schools, NIH Clinical and Translational Science, the Department of Education, DHHS/Health Resources and Services Administration, and is a consultant for the Los Angeles Unified School District.

Dr. Patricia Lester receives funding from the Department of Defense, the Frederick R. Weisman Philanthropic Foundation, the McCormick Foundation/Major League Baseball, the National Institute for Child and Human Development (NICHD), the UCLA Foundation Fund, the Pritzker Foundation, the US Army Medical Research and Materiel Command (USAMRMC), and the UniHealth Foundation.

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Table 1

Overview and Description of the Resilience Classroom Curriculum for Teens

Module	Description
Module 1: Emotional Regulation	Enhance emotional regulation and effective coping strategies using the Feeling Thermometer and the cognitive triad.
Module 2: Communication	Discuss and role-play effective communication techniques.
Module 3: Goal-Setting	Develop goals that are specific, measurable, achievable, realistic, and timely.
Module 4: Problem Solving	Read Mark's blog about social struggles and adjusting to moving and utilize a step-by-step approach to effective problem solving.
Module 5: Communication	Read Emily's blog about risky behaviors and communication. Practice effective communication skills and identifying resources.
Module 6: Managing Stress Reminders	Read Alexis's blog about experiencing depressive symptoms. Discuss mental health challenges and sources of support.
Module 7: Managing Stress Reminders	Read Cody's blog about having a parent with PTSD. Explore the impact of individual, family, and community stressors. Discuss sources of support.

Table 2

Sample characteristics and pre-survey measures

	Total Sample n = 100
Sample Characteristics	
<i>Age in years, n (%)</i>	
14	51 (51)
15	25 (25)
16	7 (7)
17	9 (9)
18	6 (6)
Missing	2 (2)
<i>Mental Health Service Use in Past Year, n (%)</i>	
Always	4 (4)
Sometimes	9 (9)
Rarely	16 (16)
Never	64 (64)
I don't know	6 (6)
Missing	1 (1)
Pre-Implementation Measures	
<i>Positive PTSD Screen, n (%)</i>	
	19 (19)
<i>Internal Assets, mean (SD)</i>	
Empathy	8.20 (2.60)
Problem Solving	4.34 (1.75)
Self-Awareness	9.56 (2.39)
Self-Efficacy	12.04 (2.36)
Total	34.30 (6.27)
<i>School Support, mean (SD)</i>	
	17.37 (5.35)

SD, standard deviation

Resiliency, school support and PTSD at pre- and post-survey and estimated change based on mixed-effects regression model results

Table 3

	<i>N</i>	Pre		Post		Estimated Difference ¹	SE	Cohen's <i>d</i>	<i>p</i> value
		Mean	SD	Mean	SD				
Resiliency									
Empathy	60	8.45	2.51	9.13	2.13	0.68	0.28	0.29	0.0169
Problem Solving	59	4.26	1.74	5.23	1.95	0.93	0.28	0.53	0.0014
Self-Awareness	60	9.62	2.11	10.00	1.79	0.41	0.23	0.20	0.0851
Self-Efficacy	60	12.15	1.91	12.54	2.22	0.34	0.25	0.19	0.1767
Total Score	59	34.61	5.12	37.25	5.35	2.32	0.63	0.50	0.0006
School Support	60	16.86	4.95	18.05	4.60	1.07	0.56	0.25	0.0631
		<i>n</i>	%	<i>n</i>	%	OR²	(95% CI)		<i>p</i> value
Positive PTSD Screen	60	9	15.0	8	13.3	0.86	0.28	2.68	0.7925

All models adjusted for participant's age at the time of the pre-survey

SE, standard error; CI, confidence interval

¹ Difference = post-survey score minus pre-survey score

² Adjusted odds ratio for the odds of a positive PTSD screen on the post- vs. pre-survey