Chapter

Addressing US Youth Violence and Central American Migration through Fortifying Children, Families, and Educators in Central America: A Collaborative Approach to the Development and Testing of a Youth Violence Preventive Intervention

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Abstract

Youth violence is a pressing problem in the United States (US) with multiple contributors. Some violence involving US youth can be linked to a larger global epidemic of youth violence in Latin America and in Central America, specifically. Hemispheric histories of violence fueled by a century of US resource extraction and intervention, and other factors such as internal economic and political strain, contribute to present-day migration from Central America to the US. Addressing the intricate problems of US youth violence and migration requires multi-systemic prevention programs to address youth violence in families, schools, and communities in Central America. One such example is *Miles de Manos (MdM;* "Thousands of Hands"). MdM is intended to target risk and protective factors related to migration from Central America to the US. It is a multi-modal, culturally-specified and community-based violence prevention intervention for elementary-school aged children, their families, and children's teachers and school staff. Data collected during pilot trials indicate promise in terms of MdM increasing positive teacher and parent behaviors that promote prosocial behaviors and reduce problem behaviors in youth. Outcomes due to MdM for youth, parents and other caregivers, and teachers are currently being examined in a randomized controlled trial in Tegucigalpa, Honduras.

Keywords: United States, youth violence, central American migration, preventive intervention, program development, community-based, cultural adaptation

1. Introduction

Violence in the United States (US) is the third leading cause of death for young people (aged 10 to 24 years) and has widespread costs for individuals, families, and communities [1]. Each day in the US, about 12 young people are victims of homicide and almost 1400 are treated in emergency departments for nonfatal physical assault-related injuries [2]. Further, one in five high school students report being bullied at school or engaging in a physical fight in the past year [2]. Losses from violence against US youth in a single year include approximately 1.3 million years of life and $18.2 billion in combined medical and lost productivity costs [2]. Amidst these brutal statistics there is cause for hope; mounting evidence demonstrates that youth violence is preventable [3]. Though contributors to youth violence are multi-sectoral and multi-modal, few interventions engage stakeholders across key contexts of young people's lives, including home and school [4]. Further, the US Centers for Disease Control and Prevention and the National Institute of Justice recommend that, in addition to addressing common risk factors for youth violence—i.e., delinquent peers, poor family functioning, and school disengagement [4, 5]—youth violence programs may be more effective if they are racially, ethnically, and culturally sensitive and address stresses associated with discrimination and immigration [6, 7].

One of the contributors to youth violence in the US is deviant peer association, including gang involvement, typically beginning after age 10 and peaking at age 14 [8]. One in three US local law enforcement agencies reported youth gang problems in their jurisdiction [6]. In the same year, 45% of high school students and 35% of middle school students said that there were gangs—or students who considered themselves part of a gang—in their school [7]. Two-thirds of gangs are located in larger US cities and suburban counties and account for the majority of gang-related violence and more than 96% of all gang homicides [9]. In Chicago and Los Angeles, nearly half of all homicides were attributed to gang violence [6]. Contrary to popular perception, girls join gangs in large numbers [4].

Violence poses unique challenges for US Latine (a linguistically and gender inclusive term) youth, particularly those who live in communities that are under-served and shaped by histories of discrimination, exclusion, and erasure [10, 11]. Long-standing US histories of racism, xenophobia, and the use of violence by state actors (e.g., the over policing of low income Black and Latine neighborhoods, institutional corruption, and a legal system that disproportionately punishes Black and Latine urban residents [12–14]) create conditions within which US gang members are much more likely to be Latine than any other race or ethnicity [2], with attendant risks to Latine families and communities. For some Latine youth living in immigrant origin neighborhoods, gang-related risks can be potentially far-reaching. US youth violence is linked to a larger global epidemic of youth violence [3] and can be fueled by connections to gang crime and the trafficking of people and drugs to the US from Central America, and of guns from the US to Central America [15]. For US youth who are touched in some way by these gangs, seemingly distant connections can directly and often profoundly impact their individual well-being, as well as that of their families and compatriots both in the US and in countries of origin [16]. Indeed, when transnational gangs influence schools and communities, the health and safety of all youth and community members are at risk [17–19], in the US as well as throughout Central America. Here we describe our work to collaboratively develop a youth violence preventive intervention in Central America, which we currently are testing in Honduras, as one response

to complex conditions that give rise to the ongoing and dangerous migration of children and families from Central America to the United States.

2. Central American migration to the United States

As the US is home to millions of people who immigrated from all over the world, global social conditions have implications for the health and well-being of US populations. In recent years, a significant number of immigrants have hailed from countries in Latin America. Central to US immigration policy conversations are spikes in the numbers of families and unaccompanied minors who seek safe haven in the US having fled perilous conditions in the Northern Triangle (i.e., Guatemala, Honduras and El Salvador). Central American regional instability resulted, in part, from decades of US resource extraction and military and corporate intervention, which, in the present day, are exacerbated by US demands for workers and drugs, and the profitable export of firearms.

Within the past 10 years, unaccompanied children (UACs) from the Northern Triangle have fled violence and entered the US in unprecedented numbers. After reaching record high levels during the spring and summer of 2014 (51,705 UACs apprehended), the number of UACs from Northern Triangle countries arriving at the US-Mexico border declined sharply to 28,387 apprehensions in 2015 [20]. By 2016, however, UAC arrivals from these nations once again began to increase (to 46,893 UACs apprehended), with 113,576 UACs apprehended by July 2022, over three-quarters of whom were from Northern Triangle nations and one-quarter of whom were Honduran [21]. During FY2022, family unit apprehensions totaled 356,174, a level slightly below that for all family unit apprehensions in FY2012 (394,762), the first year that US Customs and Border Protection published family unit apprehension figures [20]. These high numbers of UACs as well as families from Central America apprehended at the US border are testament to the dramatically worsening social conditions in the Central American region, especially related to violence [18, 22, 23].

Despite coordinated efforts involving Central and North American governments to step up enforcement and prosecute migrant smugglers, powerful push factors, including high levels of violence, appear to have overwhelmed these efforts [24]. Violence is perpetrated by drug trafficking and organized crime networks as well as by domestic abusers [18, 19, 24] at rates so momentous they have led Honduras and El Salvador to vie annually (until 2019) for the title as the world's most dangerous peacetime country [25]. The ripple effects of citizen insecurity in Central America are readily felt in the US—witness, for example, the increasing number of migrants, asylum seekers, and refugees arriving at the US border—and have spurred the US to collaborate with countries in the region to implement and refine security efforts. Between 2008 and March 2019, the US government supported the Central America Regional Security Initiative (CARSI), which provided the nations of the isthmus with equipment, training, and technical assistance to support immediate law enforcement operations and to strengthen the long-term capacities of Central American governments to address the underlying social and political factors that contribute to persistent security challenges [26, 27]. In March 2019, the Trump administration announced its intention to end US foreign assistance to El Salvador, Guatemala, and Honduras due to the continued northward flow of migrants and asylum-seekers from the Northern Triangle [26]. Despite this policy decision, Congress continued to

appropriate nearly $2.6 billion over the four years of the Trump administration and the Biden administration pledged $4 billion in support to Central America [23, 27].

Congressional appropriations of over $1.2 billion to CARSI provided little evidence that CARSI supported programs, and particularly those that endorsed a *Mano Dura* (tough on crime) approach, contributed to improved security conditions, with overall country-level security indicators remaining poor in several Central America nations [26, 27]. Encouragingly, however, several community-based violence prevention programs supported through CARSI funding have demonstrated positive impacts on reduced levels of violence and increased community cohesion [26]. Unfortunately, the information available on these programs is scant—few scientifically rigorous studies have been conducted on community-based violence prevention programs in Central America.

3. Elements of successful community-based violence prevention programs

Key elements of successful youth violence programs include emphases on early intervention in terms of decreasing risk for and increasing protection against the development of antisocial behaviors during the pre-K and elementary school ages in both the school and the home settings [28]. Key skills that parents, other caregivers, and teachers are often taught include the ability to support children's behavioral self-regulation, to encourage the positive resolution of conflict, and to enhance the development of prosocial relationships [29]. Further, promising programs tend to embrace a social-ecological approach that addresses individual and relationship level factors (e.g., protective factors include cultural assets of families), while simultaneously teaching parents, other caregivers, and teachers about the community (school and neighborhood-based) and societal level factors (e.g., risk factors include poverty, discrimination) that may contribute to youth violence. Adults are the primary target of such programs with the goal being that they provide consistent modeling, support and encouragement of children who then can develop skills that are key to violence prevention, including positive communication, problem-solving, conflict resolution and management, empathy, impulse control, and emotion regulation [29, 30]. Skill development interventions have an extensive and robust research base, which shows that building youth's interpersonal, emotional, and behavioral skills can help reduce both youth violence perpetration and victimization [30]. Enhancing these skills can also impact risk or protective factors that covary with youth violence, such as substance use and academic success [31–33]. Finally, through training parents and school staff in the social determinants of violence, they can be empowered to be de facto community health workers who engage more broadly with others to prevent violence.

Across a five-year period, our US-based research team worked with partners in Central America and Germany to develop *Miles de Manos* (*MdM;* "Thousands of Hands"), a universal, multi-modal, evidence-informed and community-based youth violence prevention intervention targeting elementary school-aged youth and their families and teachers. This culturally sensitive program was designed for Latin American origin communities and school staff and is informed by the process and content of two programs identified as "effective" by the National Institute of Justice: Linking the Interests of Families and Teachers (LIFT) and Positive Behavioral Interventions and Supports (PBIS), as well as *Nuestras Familias* (NF*;* Our Families), a program that is routinely cited as one of the few empirically supported efficacious preventive interventions for US Latine adolescent externalizing behaviors [31, 34–37].

The development, testing and refinement of MdM was informed by five feasibility trials conducted between 2012 and 2016.

4. The development of *Miles de Manos*

MdM was developed through a collaborative process between practitioners, administrators, and researchers from within and outside of the Central American region. This process was launched in 2011 by the PREVENIR Team from the German international aid agency, *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ). PREVENIR is a program intended to prevent youth violence through the application of four strategies: (1) the introduction of local multi-sectoral prevention councils, (2) improved and localized youth employability efforts, (3) the establishment of gender sensitive community police and attention to victims of violence, and (4) the installation of violence prevention programs in and out of school. While efforts were underway for the first three strategies, members of the PREVENIR Team began an international search to learn about evidence-based programs for youth violence prevention. This effort could have resulted in the adoption of the typical approach used by most international agencies in Central America: take an "evidence-based" program developed in a high-income country, translate the content into Spanish, train facilitators, and disseminate the program. Instead, the work of the PREVENIR team led to a much different outcome: the development of a new culturally and evidence-informed intervention by and for Central Americans that proceeded through seven phases. This international collaboration included consultants from four Central American countries, US university-based prevention scientists, leaders from the Central American Integration System, and Ministries or Secretaries of Education from each Northern Triangle country, as well as schools, community leaders, youth and families from the Northern Triangle and Nicaragua. The work was conducted through funding from the governments of Germany, Australia, and the Netherlands and involved a number of phases.

During **Phase 1**, GIZ invited US-based team members to Central America to meet with experts to gain a deeper understanding of the assets and needs of communities beset by violence. During this phase, we learned about programs and initiatives already in place. This phase also involved building the MdM development team of Central Americans and strengthening relationships between the MdM team and key stakeholders across the four countries.

During **Phase 2**, US team members, at the request of GIZ, presented three evidence-based programs, PBIS [34], LIFT [31], and Nuestras Familias (NF) [36] as the starting place for the content and process of MdM. GIZ was interested in these three programs due to the positive findings of each and due to the larger body of evidence on the positive effects of school-based cognitive-behavioral programs that are similar in content and process to these programs [38]. Specifically, positive impacts of LIFT on parent and youth behaviors have been found within the context of a longitudinal randomized controlled trial of 12 schools [31, 35]. Positive impacts of PBIS have been found in a wide variety of studies [39], including randomized controlled trials [40]. Positive impacts of NF on parent and youth behaviors have been found in two school-based randomized controlled trials, with NF routinely cited as one of the few empirically supported efficacious preventive interventions for Latine adolescent externalizing behaviors [36, 37, 41]. Discussions focused on training GIZ team members in the premises and practices of these programs and identifying how elements could be used to build on *Phase 1* findings.

During **Phase 3**, GIZ team members and curriculum and instruction consultants from El Salvador, Guatemala, Honduras, and Nicaragua worked closely with the US team to adapt the programs to create culturally-grounded parent and teacher programs, as well as a "bridge" program involving both parents and teachers. The content was further revised based on feedback from key stakeholders, including groups in each country (e.g. representatives from Ministries or Secretaries of Education and leaders of local non-governmental organizations).

During **Phase 4**, a research design was developed, namely a multiple feasibility pilot strategy that included four planned tests to be conducted in Honduras, El Salvador, Guatemala, and Nicaragua [30]. **Phase 5** was the conduct of the feasibility pilots; following each of the tests, MdM was edited, ultimately undergoing substantive changes between its initial draft in 2013 and the final manualized version that was completed in December 2015. During **Phase 6**, feedback from all completed feasibility tests was used to finalize the process, content and design of MdM, and prepare for a rigorous test of program outcomes [42].

Phase 7 involved the dissemination of MdM through GIZ and key collaborators, principally in Honduras and El Salvador. In Honduras, the program has been adopted as part of the country's national education strategy. This phase included the creation of training, supervision, and fidelity monitoring systems.

Phase 8, currently underway, involves the conduct of a rigorous RCT of MdM in Tegucigalpa, Honduras. This study involves a collaboration of The University of Texas at Austin, the University of Oregon, and ChildFund International, in partnership with the Honduran Secretary of Education.

4.1 Program description

MdM comprises three components [43]: a cognitive-behavioral skills training component for parents (8 sessions), a cognitive-behavioral skills training component for teachers (8 sessions), and a "bridge" component that brings parents, teachers, and school administrators together to talk about how to support each other's efforts related to youth violence prevention (4 sessions plus a community-wide program launch event). Core elements of PBIS, LIFT, and NF were adapted, combined, and shaped through interaction of the program development team with Central American teachers, parents, and families over the course of the three years of development and piloting [44]. Seven key research evidence-based ideas from these three programs (also common to other cognitive-behavioral school-based preventive interventions) are presented in parent, teacher, and bridge components: effective communication, clear expectations, limits and consequences, positive reinforcement, adult supervision and monitoring, effective problem solving, and emotion regulation [44]. The program is highly interactive, and involves brief lectures, small and large group discussions, role-plays, and interactive exercises. The key theme throughout the components is that the "first step" in youth violence prevention and prosocial promotion is the ongoing, active, positive, and constructive communication between and among parents, teachers, and youth [44]. MdM is designed to help parents and teachers take such a step with each other and with the children who are in their care.

5. Preliminary studies of *Miles de Manos*

Throughout the development process, data were collected from parents, teachers, and youth on their perceptions of MdM as well as on outcomes related to the program.

To illustrate, findings from three of five data collections are overviewed here [30, 42]: the first pilot in Honduras, the fifth and last pilot in El Salvador, and an independent dissertation research study in El Salvador. Our goal with these pilots was to optimize the feasibility of the program as well as to refine assessment instruments and procedures to inform a later rigorous study, which is currently in progress.

5.1 First pilot

MdM was first piloted with adults connected to 4th grade classes in a school located in a Yamaranguila, a remote, mountainous community in Honduras. Parent recruitment initially focused on the members of a parent committee involved in the construction of a new school in Yamaranguila, and then expanded to all parents connected to the school. The primary facilitator of the parent groups was a local resident and a licensed primary school teacher who had extensive experience facilitating youth and parenting classes. One of the authors of the parent component co-facilitated the teacher and bridge components with the primary facilitator. The research team trained GIZ assessors on the administration of study instruments, and provided ongoing support and supervision. To attend MdM sessions, the 75 parents who attended reported travel times (typically on foot) that varied between 1 and 30 minutes (39%), 30 minutes and 1 hour (39%), 1 and 1 ½ hours (11%), and 1 ½ and 2 hours (11%). Despite these distances, and frequent, powerful rains that made travel difficult on the dirt roads and trails in the area, parent participation in weekly sessions remained high, with the number of parents increasing 50% by the end of the program. Based on feedback received by consultants and community leaders, each meeting included food or *meriendas* prepared by a community member and brought to share with others during session breaks and at the end of gatherings. Nearly all participants expressed enthusiasm for the program and for what they rated as high-quality facilitation and materials. Participants also reported having learned valuable knowledge and skills they thought would make a difference for the children in their lives. As about 40% of parents had a 3rd grade education or less, parents' high levels of involvement were important evidence of the program's accessibility. In keeping with studies of low-income marginalized families in the US [45, 46], Yamaranguila parents, despite tremendous odds, were dedicated to their children's education. Nearly all participants responded that they would recommend the program to others and described speaking frequently with other adults in their lives about lessons learned in the program. The pattern of written responses was uniform: in response to questions about suggestions for improvement and program areas of strength, most participants identified the program as extremely beneficial.

5.2 Last pilot

The last pilot was conducted in schools located within two municipalities in the state of San Miguel, El Salvador [42]. Two schools were selected in each town; one school in each town was chosen to receive MdM. Both schools were in "orange" zones in terms of level of risk, meaning that the incidence of youth violence in the local area was low relative to the rest of El Salvador, but would be considered high by international standards considering the extremely high level of violence in the country at the time of the pilot. A random process was used to determine which school would receive MdM (i.e, the Program School) and which would be a "services-as-usual" Control School. Selected teachers and administrators from the Program School were

trained as MdM facilitators by GIZ staff. The training lasted for five days. Facilitators delivered MdM to the other teachers and staff in their school as well as to the parents of students at their school. Additionally, staff members from the research team provided training in the collection of data to a group of nine undergraduate students who were supervised by a professor from the Universidad Nacional de El Salvador. Students in all classes in grades 4–6 in each school were recruited for data collection. Parents of all students in these grades were also invited to participate. In the Program School, parents were invited to register for the parent component sessions. Subsequently, teachers, students, and parents from these grades were assessed in both the Control and Program Schools at "baseline" (Time 1) before MdM was delivered in the Program School. MdM was then delivered across a five-month period. The teacher component was delivered during special sessions offered during the regular school week. The parent component was offered at a time when parents indicated they were available to participate. After MdM was delivered, students, parents, and teachers in all schools were assessed again (Time 2) via written questionnaires that were administered either to groups (i.e., parents, students) or were completed by teachers during their class preparation time. In a few cases, assessments were administered individually, for example if a parent had difficulty understanding the questions and needed assistance.

The total number of participants in the assessment included 43 teachers, 388 students, and 59 parents. Participating teachers represented 80% of all teachers in the schools; students we assessed represented approximately 95% of students in the 4th to 6th grades; approximately 16% of students in grades 4–6 had parents who participated in the program. GIZ staff regularly monitored the fidelity of implementation of the program, observing sessions and providing ongoing training and consultation with facilitators throughout the delivery of MdM. A GIZ staff member directly observed delivery at least once a week; in addition, three GIZ staff members observed 65% of the sessions. During these sessions, staff collected data on the content presented in order to provide feedback and training for facilitators as a mechanism to continually improve and monitor implementation.

Teacher participation was exceptional, with 98% of teachers in the Program School participating in at least part of the teacher component. All teachers (100%) who attended the first session continued until the end of the program. Due to a limited capacity for parents (only one sequence of the parent sessions was offered), parent involvement in the program was limited (16% of eligible parents participated though many more were interested in participating). The majority of parents (85%) who came to the first session continued until the end. Both parents and teachers were overwhelmingly positive about their experiences with MdM. Over 95% of both parents and teachers reported that they liked the sessions and over 95% said they would recommend the program to others.

Change was compared between participants in the Program School versus participants in the Control School. Using a general linear modeling approach, significant changes were found on problem behaviors that, over time, can lead to violence against others (e.g., fighting, stealing, disobedience). Changes were also found in teachers' ratings of their abilities to influence their students' prosocial skills and reduce their likelihood of behaving violently (e.g., improved problem solving, better emotion regulation, improved communication). Parents reported increased abilities to create respectful, caring, and attentive relationships with their children. Such relationships are key to effective monitoring and discipline that can reduce youth antisocial and

violent behavior. These effects are even more promising when placed within the negative social changes occurring in the neighborhood during the months of the pilot. Specifically, gang violence significantly increased, transforming the local community from an "orange" to a "red" zone (i.e., more than 90 homicides per 100,000 people within a year) [47, 48]. During the study, gang symbols appeared within the school, most notably within the boys' restroom. The lives of school staff were threatened should the symbols be removed. Despite this increase in risk, parents who took part in MdM reported their child was less likely to join a gang following the program than parents in the Control School.

5.3 Independent study

A staff member with USAID in El Salvador who was not connected with the MdM development process, completed in-depth, semi-structured qualitative interviews with 10 parents in El Salvador who had recently participated in MdM at their child's school [49]. An interpretive phenomenological analysis approach was used to identify themes. Parents often entered the program with the expectation that they would be passive participants; however, this expectation changed through their involvement with the instructor, with other parents, and with teachers, most notably through the sharing of stories about their children and families and through engaging in role-plays. The active engagement of parents with each other and with teachers is a key part of the program and has been sustained even as the program is implemented on a broad scale.

5.4 Dissemination

Agreements between GIZ and the University of Oregon include provisions that MdM program materials would be made available for free for non-profit and governmental activities. Within Central America, GIZ provides program materials and training on MdM at no cost to interested schools. Since the completion of the development process in 2015, parents and teachers have been trained in MdM in multiple public schools throughout Central America, with the highest number of participants in El Salvador, Guatemala, and Honduras. In El Salvador, from 2014 to 2020, the US Agency for International Development education project, Education for Children and Youth, included MdM as one resource for supporting schools [50]. In Honduras, the Secretary of Education has chosen to use MdM as one of their approved programs, including it as part of the Parent School (Escuela de Padres) program, which is obligatory in the 22,000 public schools in Honduras [51]. At last count, MdM has been delivered in 892 Honduran schools, with a total of 10,697 parents and 6888 teachers participating in the program. Combined, these parents and teachers affect a total of 160,650 students. To the best of our knowledge, this level of use eclipses any of the school-based violence prevention programs that were present in these countries when the MdM development process began. The unique grounding of the program in both evidence-based interventions and regional and local cultures to ensure its cultural specificity, the program development process that involved multiple stakeholders in the region, the positive preliminary findings, and the ongoing enthusiasm for the program by the Ministries of Education in Central America are key reasons we now are conducting a randomized controlled trial of the program to examine whether or not MdM is related to positive outcomes for youth.

6. Full-scale trial of *Miles de Manos* in Tegucigalpa, Honduras

We are presently conducting a randomized controlled trial of MdM with 30 public primary schools in urban and semi-urban areas in and around the capital city of Tegucigalpa. As schools in Honduras were closed until March of 2022, the trial was launched in July of 2022. Schools have been randomized into a MdM intervention condition or a services-as-usual control condition (15 schools per condition). The Secretary of Education identified potential study schools in violence prevention zones, or those yellow and orange zones in which homicide rates are not as high as those in red zones [50, 51]. In addition, selected schools had no prior experience fully implementing MdM. In each participating school, 3rd, 4th, and 5th grade students are invited to take part (approximate n = 50 students per school; 1500 total); one parent per student (n = 1500); and all 3rd, 4th, and 5th grade teachers (plus 6th grade teachers and other school staff) in each school (n = 8 per school; total n = 240). At each of three time points (i.e., baseline before intervention, intervention termination, and one-year post-termination), we will conduct assessments with all anticipated 3240 participants.

Facilitation of MdM classes is provided by four lead facilitators with prior facilitation experience (including with MdM), who train 2–3 staff per school to facilitate MdM classes involving parents and teachers. In this way, the study works to ensure that knowledge and skills are retained and sustained within each intervention school, thus sustaining the necessary "ingredients" for the success of the MdM program.

7. Conclusion

Migration from Central America to the United States, which can have catastrophic impacts upon families and communities, is exacerbated by youth violence across the Americas and the transnational networks that ferry people and drugs to the US, and guns to Central American nations. Our response to the complex problem of youth violence is a transnational collaboration of researchers and international development experts to create Miles de Manos, a multi-systemic prevention program to address the roots of youth violence in families, schools, and communities in Central America. Here we have reported persistently positive impacts of MdM on teacher and parent behaviors that promote prosocial behaviors and reduce problem behaviors in youth. As a result of the success of MdM, US researchers involved in the collaborative development team re-imported the program back to the US (Project *Juntos*/Together; PI: Martinez, Institute for Education Sciences, grant # R305A140290). It is our hope that Miles de Manos and similar programs, when implemented throughout Central America and the US with fidelity and in concert with other effective national and community development programs, can substantially reduce youth violence and ultimately contribute to greater hemispheric stability.

Acknowledgements

Thank you to all of the participants involved in our development of Miles de Manos, including Central American children, parents and other caregivers, teachers, school directors, departmental and country school leaders, leaders and members of governmental agencies, and experts in global education and international

development. We are grateful to our collaborators in the development and early testing of Miles de Manos, including Alejandro Christ, Pauline Martin, Dr. Bienvenido Argueta, Claudia Flores, Ligia Diaz Pentzke, Bayron Flores, and Mauricio Caceres. We appreciate the Deutsche Gesellschaft für international Zusammenarbeit (GIZ) whose funding, expertise, staffing, and longstanding relationships with Central American Ministries and communities made possible MdM's development, implementation, and dissemination. Research reported in this publication is supported by Eunice Kennedy Shriver National Institutes of Health of the National Institutes of Health under award number #5R01HD102984-02 (PIs: Martinez & Eddy). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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