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AN EVALUATION OF THE

PROPONTE MÁS SECONDARY PREVENTION PROGRAM: A SUMMARY

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INTRODUCTION

Proponte Más is a USAID funded program established to intervene in the spread and escalation of youth violence in Honduras. The program consists of five components, with each one aiming for a positive result that could help to change this trend in the country's most violent communities: After researching regional and social factors giving rise to youth delinquency and violence, in consultation with stakeholders, program leaders set a goal for the Result 1 intervention, increasing numbers of eligible youth and families receiving risk factor-based violence prevention services—to decrease the overall impact of risk factors proven to predispose Honduran youth, ages 8 to 17 years, to violence and delinquency.

In 2013, USAID funded the pilot test of a family-centered approach to youth violence and delinquency prevention in Honduras. The pilot program incorporated and contextualized the principles of the Prevention and Intervention Family Systems Model (PIFSM), a framework proven effective in helping to strengthen family leadership and to connect families with community support systems. To qualify applicants for the intervention services (four or more risk factors), they were assessed with the well-regarded, risk factor-based Youth Services Eligibility Tool, or YSET. After the eligible youth and their families completed the program, a post hoc evaluation was conducted to statistically test its impact. The results were promising, and USAID funded the next phase of the intervention's development and implementation.

The new program, Proponte Más, was developed by Creative Associates International, who refined the design for the family counselling model, applying lessons learned from the pilot test. With technical assistance from Arizona State University's Center for Violence Prevention & Community Safety, culturally adjusted items were added to the eligibility assessment tool and a more robust evaluation process was developed to include a randomized control trial (RCT).[1] This report outlines the methods and outcomes of the assessment undertaken by the evaluation team to measure the impact of the Proponte Más Result 1 program component on at-risk youth and families in Honduras.

We begin by explaining the context for the Proponte Más program and the reasons that evidence-informed, family-based violence prevention programming has become necessary in Honduras. We review earlier uses of risk factor approaches in this context and of family-based intervention in the region. Next, we outline our evaluation methodology with its rigorous RCT study design. We conclude with a summary of the program's evaluation results and a brief discussion of their implications.

We have sought to make this information accessible and useful for a wide range of interested readers—international development leaders and specialists, policymakers and decisionmakers at all levels, social service providers, and members of a concerned general public, among others. To that end, definitions of specialized terms are found in footnotes along the way, and the more technical details and data, with exhibits presenting statistical results, are presented in the technical report.[2] To the best of our knowledge, the study reported here is the first of its kind for a violence prevention or intervention effort in Central America.

1 A randomized control trial, or RCT, is regarded as the gold standard in evaluation design. Despite this, it is seldom used owing to the difficulty of implementation and the reluctance of program administrators to deny treatment to individuals who, it is believed, would benefit from such programming. One recent study indicated that a considerable part of the public favors universal implementation of non-researched, non-tested policies and does not approve of randomized experiments; about half of the study respondents indicated believing that randomization is inappropriate or that it is unethical to randomize treatment assignment to determine what works (Meyer et al., 2019).

2 [fn - access to tech report]

BACKGROUND

The scope and magnitude of violence in Central America, and in Honduras in particular, have often been emphasized by researchers and policymakers, but very little research has dealt with effective responses to the problem. Literature reviews on the subject have served mainly to reveal the shortage of quality evaluations of violence reduction programs (Abt & Winship, 2016; Jaitman & Guerrero Compeán, 2015). To our knowledge, ours is the first assessment of the impact of an intervention program based on risk factor reduction in a Central American nation.

The use of risk factors to understand human behaviors originally emerged from a public health research model. Within the past three decades, risk factor approaches have increasingly been applied to understanding various types of behavior with negative consequences, such as drug and alcohol abuse, risky sexual behaviors, and involvement in violence and delinquency. In part, this is due to the effectiveness of these approaches in addressing policy and program questions across a variety of disciplines. These applications have proliferated, and now risk factor approaches have become a leading theoretical and policy orientation for comprehending violence, gangs, and other forms of antisocial and illegal behaviors (Maguire, Wells, & Katz, 2011).[3]

RISK FACTOR APPROACHES TO UNDERSTANDING PROBLEM BEHAVIOR

Researchers have made considerable progress in the study of risk and protective factors and their relationship to delinquency. Meta-analyses of more than fifty such studies have found this relationship to remain constant across multiple studies[4] (Assink et al., 2015; Jolliffe et al., 2017). A strong positive association has been found between *number* of risk factors and involvement in delinquency, and it is generally agreed that delinquency is consistently associated with certain risk factors that occur within five domains: individual, family, peer, school, and community. Hawkins, Catalano, & Miller (1992) have found studies identifying not only risks, but remedies as well. The balancing of risk and protective factors promotes interventions that build on strengths of individuals, families and communities to enhance risk factor reductions. A balanced approach can also create a sense of hope among individuals, communities, and service providers, one that is grounded in a real possibility of reducing the magnitude of challenges faced by individuals who live and work in these communities, thereby making a significant difference.

To be clear, it is now critical that researchers, as well as policy and decision makers, have the capacity to use this knowledge to break through three decades of chronic failure to address the actual needs of low- and medium-risk youth with effective programming. The key is to apply data-driven methods to better identify their contemporary problems and their strengths, across domains, and to design needs-based, family-centered interventions reflecting these. Data for evidence-based problem identification can originate with any number of sources, such as secondary records from schools, neighborhood groups, family members and, importantly, with the youth themselves. This type of information, once analyzed and understood, will provide a firm foundation for building more effective interventions.

To date, research into risk factor approaches, while not specific to any one nation or region, has most often been aligned with efforts in the US, Canada and a few European countries. The purpose of the present assessment is to determine whether such an approach, when adapted to regional cultures, conditions and structures, can also effectively serve predominantly low- and middle-income nations such as Honduras.

USE OF FAMILY-BASED INTERVENTIONS TO RESPOND TO PROBLEM BEHAVIOR

Proponte Más relies upon a family systems approach for its secondary prevention model in Honduras, contextualizing the Prevention and Intervention Family Systems Model (PIFSM). PIFSM

3 [fn – access to complete lit review]

4 Meta-analysis is a statistical process that combines data from a number of different sources, such as research studies, in order to identify trends.

has been proven to strengthen internal family structures, including family leadership, and to link the family with formal and informal community systems. In theory and practice, the family has become the point of entry for intervening in youth problem behaviors, including violence. Families have become universally viewed as the primary source of child socialization, contributing both risk and protective factors during youth development (Simons et al., 1998). The underlying premise for intervention programming is that a dysfunctional family will both model and provide opportunities for problem behaviors, while a functional family will model and provide opportunities for positive and prosocial behaviors (Development Services Group, 2014). Although still rare in Honduras, family-based intervention has become a common strategy for preventing and intervening in youth problem behaviors at various risk levels.

Today, most family-based intervention programs focus on identifying and building on family strengths to address youth misbehavior, as well as on developing coping skills and strategies, providing skill-building training for parents and children, identifying and setting goals for improving patterns of family interaction, and motivating families to reframe problems and act with positive enthusiasm (Development Services Group, 2014). Many systematic literature reviews and meta-analyses have been completed, substantiating the effectiveness of family-based interventions with youth problems such as delinquency and violence (Farrington & Welsh, 2003).

In developing nations, family-based intervention programs are more often implemented to address systemic social and health problems (Maalouf & Campello, 2014). This has been a consequence, in part, of their successful implementation with high-risk participants and their effectiveness in achieving desired outcomes elsewhere (Knerr, Gardner, & Cluver, 2013); however, these programs, in Central American and other nations, have rarely been evaluated. The United Nations Office on Drugs and Crime conducted one such assessment, examining two family-based programs and their impacts on violence, in Honduras and eight other low- and middle-income nations. Based on pretest and post-test data analyses, the authors concluded that family-based intervention was a promising strategy for violence prevention in developing nations; they recommended conducting a randomized control trial (RCT) to confirm its effectiveness in these settings (2014).

NEED FOR EVIDENCE-BASED PROGRAMMING IN VIOLENCE PREVENTION

Over the last 20 years, violence has spread and intensified in a number of Central American countries, Honduras among them. Much of it is deeply embedded in distal causes associated with inequality, economic distress, cultural norms, and institutional weaknesses (Rodgers & Baird, 2014). Combining violence with its other instabilities, Honduras and its population suffer from the consequences of having too many risk factors and too few protective factors. The need for regionally adapted, evidence-based prevention and intervention is evident and time-sensitive. Honduras is especially crucial in this respect because of its geographic and economic position in the region, and its longstanding high levels of violence.

It is widely understood that unmitigated violence gives rise to more violence, disrupting socioeconomic institutions such as the labor market, interfering with residents' opportunities and access to jobs, and weakening the capacity of neighborhoods to generate and support local enterprise. Violence erodes the socializing power of parents and families, neighborhoods and schools; it also diminishes not only the capacity of families to support themselves, but the capacity of their children to imagine and strive for a productive future. Community violence disables families, taking away their ability to function as they are intended, distorting familial communication and increasing conflict. Violence normalizes family and individual isolation and fear. Youth exposed to daily neighborhood violence become less connected at school; many perform poorly and the likelihood of dropping out increases sharply. Individuals living in violent communities cannot help but lose trust in and the willingness to cooperate with social institutions, as already limited resources are increasingly diverted from sources of human

development and support, in order to finance the police, courts and corrections agencies (Moser & van Bronkhort, 1999; Vincent, 2019).

Efforts to bring about positive change in the social and economic environment, as well as in law enforcement, are extremely important. Still, change agents should not overlook another critical focal point for positive change—the families and youth who are themselves at risk. Central American youth and their families are inevitably affected by and drawn into community violence. For the past three decades, studies have been showing that youth gangs, such as those prevalent in Honduras, are now the armed actors in local societal violence, particularly in marginal neighborhoods (Salomon, 1994; Salomon, Castellanos & Flores, 1999; Sanchez, 2008). Little more than a decade ago, studies in El Salvador found youth joining gangs primarily for emotional support, a sense of belonging, respect, and social status, and less often for drugs or money (Cruz & Portillo, 1998; Smutt & Miranda, 1998). A later survey, however, revealed a growing trend towards youth gang joining for access to drugs and drug-dealing income, with drug involvement correlating with involvement in criminal violence (Girault & Concha-Eastman, 2001). An evidence-based, family-centered intervention that identifies and balances risk and protective factors, built upon a solid understanding of how these factors impact youth behaviors, could be a significant stabilizing influence for Honduran youth.

Only a small amount of research has been conducted in Central America, where delinquency and violence are high, and the results have been inconsistent. There is an immediate need for analysis of the direct and indirect causes of problem behaviors and for knowledge about what works in response to the risks faced by Central American youth (Abt & Winship, 2016; Jaitman & Guerrero Compean, 2015). Thus far, Central America has lacked the criminological foundations needed for understanding its own patterns of criminal justice and delinquency. The predominant response to crime and disorder has been suppression—that is, tactics such as police (and sometimes military) crackdowns including roundups, extensive incarceration, and surveillance. A shift towards intervention and prevention has begun within the past 20 years (Alvarado, Muggah, & Aguirre, 2015), but the much-needed balance between these and suppression strategies is still missing.

Intervention and prevention efforts have been, for the most part, centered outside of the region. Such efforts are often led by groups that provide development funding, such as USAID, UNDP, OAS and the World Bank (Muggah & Aguirre, 2013); in fact, external agencies provide about 70% of the region's funding for citizen security. In a very few instances funding organizations have, in fact, underwritten research-informed, data-driven intervention and prevention programming; however, little if any of it incorporated formal processes such as impact evaluations to determine what did and did not work. Among the more than 1,350 violence reduction programs sponsored by international development agencies since the late 1990s, more than 57% have not been evaluated, missing too many opportunities to recognize the best practices, and the ineffective ones, in violence reduction (Alvarado et al., 2015). The uncommon opportunity presented by Proponte Más with the current study is to bring forward detailed, validated information about the impact of a data-driven, locally focused intervention program, with a rigorous research design, in a violent, low-income Central American nation.

THE PRESENT STUDY

In this section, we introduce the program, its setting and origins, and the eligibility assessment instrument used to qualify participants and measure after-treatment change. We then summarize the evaluation methods used to assess the impact on youth and families of the Proponte Más Result 1 intervention.

SETTING

Some of the highest homicide rates in the world have been reported in Honduras. Less than a decade ago, in 2011, the national homicide rate was 86.5 per 100,000 population. Although the problem has since subsided, as recently as 2017 the nation still ranked among the most violent in

the world, reporting 43.6 homicides per 100,000.[5] These deaths frequently involved young people as perpetrators and victims, especially when the youths were associated with gangs. A research survey (Giralt & Concha-Eastman, 2001) published some 20 years ago indicated that Honduras's gang problem had begun to escalate; youths were reporting the use of pistols, explosives, and rifles, and having served time in prison; 23% of those respondents reported having killed someone.

5 See Universidad National Autonoma de Honduras, (2019, March), *Observatorio de la violencia,* https://iudpas.unah.edu.hn/observatorio-de-la-violencia/boletines-del-observatorio-2/boletines-nacionales/

In 2014, USAID completed the Honduras Country Development Cooperation Strategy, calling for resources needed for responding to the threat in five densely populated and violent urban cities. Fourteen intervention zones were identified across 216 neighborhoods, located in three municipalities in the Northern Corridor (Choloma, La Ceiba, and Tela) and in the country's two largest municipalities, Tegucigalpa, the national capital and largest city, and San Pedro Sula, the Honduran industrial center and second largest city. As of 2017, for three or more of the past five years, each of these municipalities had maintained a homicide rate higher than that of the nation as a whole (ex. 1).

Exhibit 1. Homicide rates per 100,000 inhabitants, by year and municipality

	2013	2014	2015	2016	2017
Nationwide	**73.64**	**67.17**	**59.44**	**59.1**	**43.6**
La Ceiba	140.7	95.6	157.25	120.83	181.5
Tela	94.7	74.2	93.47	[48.7]	100.3
San Pedro Sula	193.4	143.8	173.6	107.02	166.4
Choloma	[68.7]	[61.5]	78.3	92.7	94.5
Tegucigalpa	86.0	81.1	88.2	82.3	99.9

Source: https://app-iudpas.unah.edu.hn/participacionciudadana/Denuncias/mapa_ofic

PROPONTE MÁS

Proponte Más is a USAID funded program, developed and implemented by Creative Associates International to intervene in the spread and escalation of youth delinquency and violence in Honduras. The program in its entirety includes five distinct but related results (or elements), each intended to achieve a particular strategic outcome within that nation's most violent communities:

1. Increase the number of eligible youth and families receiving risk factor-based violence prevention services;
2. Increase the number of eligible youth and families accessing additional support services;
3. Build a core group of community-based, trained family counselors;
4. Strengthen alternative justice measures for appropriate youth offenders;
5. Create a model for family-centered, evidence-informed secondary violence prevention programming in low- to middle-income nations.

In 2013, USAID and Creative Associates International conducted a pilot test, demonstrating a concept for a family-centered, risk factor-based intervention, incorporating contextualized PIFSM principles and meant to address the program's first objective (Result 1). The at-risk youth referred for services at this time were tested for eligibility using a respected risk factor-based instrument, the Youth Services Eligibility Tool, or YSET. (Eligibility for the pilot intervention was defined as having 4–9 risk factors.) After completing the six-month intervention, participants were retested for potential changes in their risk factor levels. A post hoc evaluation of the intervention

was later conducted.[6] The results suggested a modest, statistically significant effect of treatment, decreasing overall risk factors including some associated with delinquency (Katz et al., 2017).

Subsequently, in December 2015, USAID funded the further development and expanded implementation of the Result 1 intervention. The contract was awarded to Creative International Associates, who immediately began refining the approach to reducing youths' risk factors and increasing their resilience. (See *Program Approach and Technical Design,* below). The intention was that moderately at-risk youth, within families who simultaneously worked to improve their overall functionality, would complete the program with a strengthened capacity to maintain connectedness to family, school, and other positive allies, and to resist involvement with delinquency and gangs. As before, at the end of the intervention, the evaluation team would test for changes that had occurred between the beginning and completion of the intervention. The Proponte Más plan was exceptional, however, in that it included an evaluation process from the outset that, among other things, helped to ensure adequate, consistent data collection; working closely with staff, the evaluation team designed a rigorous assessment process that included a randomized control trial (RCT).[7]

Proponte Más was operational by January 2016, and shortly thereafter, regional offices were opened. Counselors were trained to deliver family-based secondary intervention services[8] and to administer the eligibility assessment tool.[9] Proponte Más began accepting referrals in August 2017, and those referred completed their eligibility assessments in February 2018. The intervention was implemented between March and September 2018, and in September, post-treatment risk factor-based eligibility assessments were completed.

PROGRAMMATIC APPROACH AND TECHNICAL DESIGN

Proponte Más's program goal is to reduce risk factors and increase protective factors among its participants. Youth between the ages of 8 and 17 years, and who live in one of 14 designated intervention zones, can be referred to the program by a parent, guardian, or other family member; a school, church, or community services organization; or another interested adult; youth may also self-refer. In order to complete an eligibility assessment, however, the youth needs an informed parent or legal guardian to sign a consent agreement. A risk factor-based diagnostic instrument, the IMC (see below), is used to identify youth having four or more risk factors, thus qualifying them, along with their family members, to receive the program's intervention services.

Once eligibility has been established, a trained family counselor (other than the one having administered the IMC to the youth) meets with each youth and the family several times over a six-month period. The Proponte Más approach requires working with youth both individually and in the family setting, providing intervention activities for both and linking participants with community services. Only family-based interventions, according to the program's theory of change, provide opportunities for modifying relational sequences,[10] family dynamics,[11] and family cohesion,[12] using assigned behaviors as the lever to create cooperation and change.

6 Post hoc evaluations are limited by whatever program data are available, not having been planned for at the outset of a program. This evaluation also showed that the intervention had been implemented with a high degree of fidelity for secondary group participants but had fallen short of full implementation for participants at the highest risk level (Katz et al., 2017).

7 See *Introduction*, p. 1, footnote 1.

8 *Secondary prevention services* are developed for youth at moderate risk for violence and delinquency (i.e., for Proponte Más, having 4 to 9 risk factors).

9 See *IMC Diagnostic Tool* section, below, for more information about the risk factor diagnostic instrument and process; also see appendix C, exhibit C1.

10 Relational sequences are the patterns of interactions within a family and between the family and others.

11 Family dynamics are the various ways that members relate to one another, including the motivations that drive their interactions.

12 Family cohesion is defined as the "emotional bonding that family members have toward one another" (Olson, Russell, & Sprengkle, 1984, 60).

Together, youth and their family members are guided through program activities by their assigned family counselor. The counselors, in turn, work together as a strategy team that can collaborate to monitor, discuss and adjust each family's plan, as needed. Throughout the family and individual sessions, the counselor emphasizes achievement of specific goals, determined by the participant's risk factor assessment and the family's progress through the intervention's seven phases:

1. *Refer, collaborate, evaluate*. The initial referral source, if any, identifies problem behaviors; a responsible party signs the informed consent agreement; a diagnostic tool is used to identify client youth risk factors; client is assigned to a primary group (0-3 risk factors, no/low risk, ineligible for secondary treatment) or a secondary group (4-9 risk factors, moderate/high risk, eligible for secondary treatment).
2. *Build agreements*. Counselors, with clients, develop the treatment plan; select behaviors that client youth and family, with counselor support, will address by completing activities assigned throughout several scheduled meetings.
3. *Redefine problem/solution*. Intervention emphasizes perception shift, from viewing problems/solutions as belonging to the youth to viewing these as belonging to the family.
4. *Celebrate change*. Youth and family acknowledge and celebrate progress and change.
5. *Integrate*. Youth and family identify and integrate newly acquired emotional and other resources and skills.
6. *Establish next-level agreement*. Client youth and family, with counselor support, adopt rules to guide improved supervision within the family.
7. *Re-evaluate*. Program/treatment ends; counselors re-administer IMC(R) and FACES IV (post-test diagnostic instruments) to youth and family; evaluation team measures change.

The Proponte Más intervention is grounded in PIFSM family systems theory and practice. Its theory of change identifies the family as the key change agent for moderating risk factors. Accordingly, the strongest interventions are those that engage the youth and family members in changing behaviors and risk and protective factors. A successful intervention improves how the entire family functions, shifting the balance of risk and protective factors in ways that reduce overall risk factors, including factors such as the youth's dependence on and connections to delinquent peers. At the heart of the intervention is its goal of instilling long-term, perhaps even multi-generational, family cohesion.

With the family as the locus of change, it becomes crucial that Proponte Más counselors accurately assess family strengths and weaknesses as each treatment plan is created. A core PIFSM premise, embraced by Proponte Más, is that youth and their families should be selected for program participation based on level of risk, as identified with a validated assessment instrument. Depending on their IMC-I results, youth (and their families) are assigned to one of two levels: the primary risk group includes those with 0 to 3 risk factors, and the secondary risk group includes those with 4 to 9 risk factors. The IMC assessment tool has a central role, therefore, in determining the program's success.

IMC DIAGNOSTIC TOOL

Youth participating in the pilot test, preceding the current program, established program eligibility by completing the well-regarded Youth Services Eligibility Tool (YSET), developed several years ago by the University of Southern California. The YSET instrument relies on nine risk factor scales: antisocial tendencies, weak parental supervision, critical life events, impulsive risk taking, neutralization of guilt, negative peer influence, peer delinquency, influence of gangs in the family, and crime and substance use.[13] (*See appendix A, ex. A1.*)

13 A scale is a type of evaluation measure that produces a numerical score. Using the Likert scale, for the risk factor scale *antisocial tendencies*, for example, a researcher would create a set of several statements reflecting antisocial tendencies and assigning a score (0-4) to each of five possible response categories, such as "strongly agree," "agree," "neither agree nor disagree," "disagree," or "strongly disagree." The respondent's scores for each statement in the set would then be added together to arrive at an overall score for the risk factor scale *antisocial tendencies*.

IMC Risk Factor Assessment Tool

IMC-I - Determines risk status (eligibility=4 or more risk factors) for youth referred to Proponte Más; completed by youth before assignment to treatment or control groups. "Pretest," for intervention evaluation purposes.

IMC-R - Determines risk status for youth after six months of programming; completed by youth in treatment and control groups after treatment period ends. "Post-test," for intervention evaluation purposes.

Based on further analyses of the data obtained through that first group of youth, Proponte Más elected to revise the YSET to include additional items reflective of conditions in Honduras. The new tool became the IMC – *Instrumento de Medicion de Comportamientos,* or Behavior Measurement Instrument. Proponte Más used the IMC to identify the at-risk youth and their families who would receive its prevention services. Family counselors, trained in using the YSET, administered the revised risk assessment tool. (The youths were assessed by a counselor other than the one who would later be assigned to their family). Initially, the instrument (IMC-I) was administered to all referred youth to separate eligible from ineligible applicants. It was administered again after treatment (IMC-R) to eligible youth who had completed the program, whether in the treatment group or the control group, to detect changes in eligibility status, as measured by numbers of risk factors.

DATA AND METHODS

The sample available for analysis in our study consisted of 778 youth who were eligible for treatment, based on their IMC-I results, and who remained in the program, whether in the treatment group or the control group, through their IMC-R post-tests. Each eligible youth was assigned, at random, either to the treatment group (n=463) or the control group (n=481) for the duration of the program. Of those assigned to the treatment group, 33 youths dropped out before the program started and another 58 dropped out during the program, leaving 80.3% of those initially in the treatment group (n=372) in our sample. Of those assigned to the control group, 75 dropped out at some point before post-testing, leaving 84.4% of those initially in the control group (n=406) in the sample. (*See appendix B, ex. B1.*)

Comparing treatment and control group youth by gender, age, school status, parental presence, and neighborhood of residence, we found no significant differences between them. About 66% of the treatment group and 62% of the control group were male, with the mean age in both groups being about 12 years. About 87% of the treatment group and 84% of the control group were enrolled in school. Less than 80% of the youth in either group had two parents present in the home; 18.6% in the treatment group and 19.7% in the control group lived with a single mother or other female caregiver; a small number of youths in each group lived with a single father or no parent figure. (*See exhibit 2; also, appendix B, ex. B2.*)

Exhibit 2. Demographic characteristics of treatment and control groups (n=778)

	Treatment Group (T0; n=372)		Control Group (C0; n=406)		
Demographic characteristics	**n**	**%**	**n**	**%**	**sig.**
Gender					
Male	246	66.13	251	61.82	
Female	126	33.87	155	38.18	
Age a		12.3(2.5)		12.5(2.5)	
Currently in school	323	86.83	341	83.99	
Parental presence					
Mother & father (or other female & male figures)	291	78.45	314	77.34	
Single mother (or another female figure)	69	18.59	80	19.70	
Single father (or another male figure)	9	2.42	8	1.97	
No parent (and no other adult guardian)	2	0.54	4	0.99	

**p < .05; ** p < .01; *** p < .001*
Note: See App. B, ex. B2 to see this demographic data, by zone.

DATA

Most of the data used for this evaluation were drawn from Proponte Más's IMC, FACES IV, and program fidelity databases:

- IMC-I pretest and IMC-R post-test risk factor data had been collected from all the youths in our sample, whether in the treatment or control group, allowing us to test for changes in eligibility status over the treatment period; the data for each individual included referral source, IMC-I and IMC-R administration dates, ID number, eligibility status, demographic characteristics, and responses to items in the assessment instrument.[14]
- FACES IV data were related to dimensions of family cohesion and adaptability; the assessment tool is based on a model that considers three dimensions of family function: cohesion, family flexibility, and communication.[15] These data were collected from a parent or guardian, pre- and post-treatment, for all youths in the sample (app. C, ex. C1).
- Program fidelity data, entered over the course of treatment by program counselors, were examined for the process evaluation;[16] among other things, the data included meeting dates and durations, family composition, goals and problems addressed, youth issues and proposed solutions, tasks assigned and completed, and plans for future meetings.

PROCESS MEASURES

Process measures are discrete measurable program elements that, when quantified or qualified, indicate whether or not a program is on track towards reaching a specific goal or objective. In this case, the overall process goal was to deliver a set of structured, principle-driven intervention services to a clearly defined population, in close accord with its plan, to the extent possible. Process measures are used by evaluation teams as indicators of whether and how well a program has achieved its process goal. Successes and failures cannot be attributed to a program without its processes being standardized and monitored, nor can such processes be replicated with any degree of confidence about their potential outcomes.

In this case, after assuring that the databases contained the types of data needed to support the process evaluation, we created a number of measures, including number of youths referred, type of referral source, IMC-based eligibility status, numbers of eligible youth assigned to the treatment and control groups, and the number of program dropouts and, when applicable, reasons for dropping out. We also selected four measures of program fidelity: (1) time spent by the counselor on behalf of each client in meetings (individual, family, and strategic team), (2) number of assignments given (individual and family), (3) number of assignments completed, and (4) average assignment completion ratio, calculated by dividing the number of completed assignments by the number assigned.

OUTCOME MEASURES

Risk and protective factors. Outcome measures for this evaluation are composed in large part of specific risk and protective factors that the intervention is designed to change. The stated goal of Proponte Más is to decrease risk factors for youth delinquency and violence. We selected a number of primary measures based on that goal, relying on individual pre- and post-test risk factor scores obtained from the IMC database for analysis. We included 34 risk and protective factors across three domains: community, family, and peer/individual. Further, we calculated an overall average score for each domain, and then an

14 For more information about the assessment tools used for this evaluation, see Katz, Cheon, & Zheng (2019). Results of these analyses are available from the authors, on request.

15 Olson (2011, 65) defines family *cohesion* as "the emotional bonding that family members have toward one another," *family flexibility* as "the quality and expression of leadership and organization, role relationship, and relationship rules and negotiations," and *communication* as "the positive communication skills utilized in the couple or family system." *Balanced* levels of cohesion and flexibility are hypothesized to be the highest form of family function, while *unbalanced* levels of cohesion and flexibility are hypothesized as the lowest form of family function.

16 *Fidelity data* are used to answer the question: To what extent did the program that was delivered to the clients actually match the program as formally planned?

overall risk factor score. These scores consolidated and represented the individual domain and risk scores.[17]

Family cohesion and adaptability. The Proponte Más intervention is designed to achieve its risk factor-reduction goal primarily through improved family functioning. To test for changes in family cohesion and adaptability, as secondary outcome measures, we used the eight FACES scales (i.e., cohesion, flexibility, disengaged, enmeshed, rigid, chaos, family communication, and family satisfaction).

Measures of delinquency. Finally, we were interested in whether delinquency was affected by treatment, either directly or indirectly. We tested for these effects, using secondary outcome measures based on 18 IMC items, indicating whether respondents had been involved in problem behaviors six months before the IMC-I (pretest) or in the months between the pre-test and post-test (IMC-R). Seven secondary outcome measures of delinquency were created; we also calculated an overall delinquency score, ranging from 0 (no involvement in problem behaviors) to 18 (involvement in all 18 problem behaviors).

EVALUATION OUTCOMES

PROCESS EVALUATION RESULTS

For the process evaluation, we examined the extent to which Proponte Más had carried out its activities according to plan. Here, we briefly describe actual referral, eligibility assessment, and treatment activities carried out during the program. For all eligible participants, we have included demographic information, retention rates, and measures indicating levels of service delivery. Overall, we concluded that Proponte Más has been successful in attracting and retaining a substantial proportion of its targeted population, has consistently and properly used a proven assessment instrument to test for eligibility, and has delivered intervention services as intended.

17 For detailed information on how all three types of outcome measures were selected and scored, see [access to tech report].

REFERRAL

Proponte Más informed referral networks, family and youth service providers, and community organizations about its program in stages. In August 2017, fifty family counselors mounted awareness campaigns in targeted communities, emphasizing that participation in the eligibility diagnostic process would require written informed consent from a parent or legal guardian and that youths' families would also be expected to engage with the program's intervention services. They made it clear that the voluntary program was targeting families with youth from 8 to 17 years old who could be identified by the IMC assessment as being "at-risk." We found the following:

- Proponte Más received referrals for 4,574 youth; a parent or legal guardian provided consent to administer the IMC eligibility assessment to 98.3% of them (n=4495); all for whom consent was given participated in the eligibility screening process.
- Most youth who were screened had been referred by a parent or guardian (54.7%) or a school (29.7%); others had been referred by a USAID-sponsored outreach center (3%), another family member (2.9%), a program or institution (2.7%), a church (1%), a counselor/advisor (0.2%), or some other source (5.3%); 0.4% were self-referred.
- Of the youth participating in the IMC eligibility screening, 25.2% (n=1131) were from La Ceiba; 23% (n=1032) were from San Pedro Sula; 22.8% (n=1023) were from Distrito Central (Tegucigalpa); 16.4% (n=738) were from Choloma; and 12.7% (n=571) were from Tela.

ELIGIBILITY

Proponte Más screened 4,495 youth for eligibility; 21% (n=944) were assessed to be at risk (4 or more risk factors) and eligible for secondary intervention services. The remaining 79% (n=3551) were considered not at risk (fewer than 4 risk factors), and therefore ineligible for services. The municipality in which a youth lived was significantly related to the likelihood of being eligible. (*See exhibit 3*).

Exhibit 3. Program eligibility by municipality

	Primary (n=3,551)		Secondary (n=944)		Total Sample (n=4,495)	
Municipality***	n	%	n	%	n	%
Tegucigalpa	801	22.6	222	23.5	1,023	22.8
San Pedro Sula	840	23.7	192	20.3	1,032	23.0
La Ceiba	825	23.2	306	32.4	1,131	25.2
Choloma	616	17.4	122	12.9	738	16.4
Tela	469	13.2	102	10.8	571	12.7

**p<.05; **p<.01; ***p < .001; Pearson chi-square = 41.1408; df = 4*

Eligible youth, classified as at risk, were placed in the secondary group; ineligible youth were placed in the primary group.[18] We compared the two groups, looking for significant variations in eligibility by source of program referral. Secondary group youth were more likely than primary group youth to have been referred by a parent or guardian (56.5% vs. 54.3%) or other family member (4.3% vs. 2.6%). Conversely, those in the primary group were slightly more likely than those in the secondary group to have been referred by their school (30.8% vs. 25.4%). No other discernable patterns for groups and referral sources emerged for any other referral source, including self-referrals. (*See exhibit 4.*)

18 Primary group members had no further contact with the secondary counseling intervention. These families were linked with Proponte Más-funded family network promoters who voluntarily worked with them, providing support and linkages to services to help prevent their levels of risk from increasing (Result 2).

Exhibit 4. Number of assessed youth by program eligibility and referral source (n=4495)

	Primary (n=3551)		Secondary (n=944)		Total Sample (n=4495)	
Type of Referral**	n	%	n	%	n	%
The youth referred him or herself	14	0.4	3	0.3	17	0.4
Parent/guardian	1928	54.3	533	56.5	2461	54.7
Other family member	91	2.6	41	4.3	132	2.9
Counselor	6	0.2	3	0.3	9	0.2
Church	38	1.1	8	0.8	46	1.0
Program or institution	89	2.5	31	3.3	120	2.7
School	1094	30.8	240	25.4	1334	29.7
Outreach Center	111	3.1	26	2.8	137	3.0
Other	180	5.1	59	6.3	239	5.3

**p<.05; **p<.01; ***p < .001; Pearson chi-square = 21.2612; df = 8*

ALSO, WE FOUND THAT:

- Males were more likely than females to be placed in the secondary (at risk) group;
- Secondary group youth were likely to be slightly older than primary group youth (average age in years=12.58 vs. 12.26);
- With respect to attending school, 83.7% of secondary group youth and 90% of primary group youth were currently attending. (*See exhibit 5.*)

Exhibit 5. Individual characteristics (n=4495)

	Primary (n=3551)		Secondary (n=944)		Total Sample (n=4495)	
Characteristics	**n**	**%**	**n**	**%**	**n**	**%**
Sex**						
Male	2081	58.6	605	64.1	2686	59.8
Female	1470	41.4	339	35.9	1809	40.2
Mean Age (SD)1**	12.26 (2.6)		12.58 (2.6)		12.33 (2.6)	
Currently in school***	3194	90.0	790	83.7	3,984	88.7
Place of birth						
Rural	246	6.9	68	7.2	314	7.0
Urban	3305	93.1	876	92.8	4181	93.0

1 Range: 8 to 17 years old
**p<.05; **p<.01; ***p<.001*

RETENTION

Analyzing Proponte Más case tracking data, we found that 82.4% (n=778) of 944 youth in the secondary group (assessed as at risk, eligible for services) had agreed to participate and completed the six-month program. By gender and total number of risk factors, we found no significant differences between those who completed the program and those who dropped out. Age, school enrollment, and place of birth were significantly related to at-risk participants dropping out. Youth who completed the program were more likely to be younger (average age in years=12.39) and to be attending school (85.4%) than those who dropped out (average age in years=13.44, 75.9% attending school). (See exhibit 6.)

Exhibit 6. Individual characteristics of youth who completed the program vs. youth who dropped out (n=944)

	Total (n=944)		Completed (n=778)		Dropped out (n=166)	
Characteristics	**n**	**%**	**n**	**%**	**n**	**%**
Sex						
Male	605	64.1	498	64.0	107	64.5
Female	339	35.9	280	36.0	59	35.5
Mean Age (SD)1***	12.58 (2.6)		12.39 (2.5)		13.44 (2.6)	
Currently in school**	790	83.7	664	85.4	126	75.9
Place of birth**						
Rural	68	7.2	47	6.0	21	12.7
Urban	876	92.8	731	94.0	145	87.4
Total Number of Risk Factors (SD)2	4.83 (1.2)		4.82 (1.2)		4.87 (1.2)	

1 Range: 8 to 17 years old; 2 Range: 0 to 8 Risk Factors
**p<.05; **p<.01; ***p<.001*

DOSAGE

For several reasons, we measured the level of services, or "dosage," delivered by Proponte Más. First, we wanted to assess whether the intervention had been fully implemented and whether the services delivered in the field were precisely those represented in the program blueprint. Success or failure could only be attributed to program interventions if we could ascertain that these had been executed according to plan, and as noted before, treatment outcomes that are not controlled and/or standardized, regardless of apparent effect, have no predictive value for future decision making. Also, when a program fails, service-related measurements can help detect substandard or incorrect interventions that may have contributed to that outcome.

Describing and measuring intervention quality and quantity allowed us to more fully understand the impacts of the program and interventions we were assessing. Here, for example, measuring the number of assignments made, accepted, and completed provided indications of the program's service delivery level. In summary, our findings:

- Counselors averaged spending 1,201 minutes (about 20 hours) with or working on behalf of specific clients: that is, 712.05 minutes in family meetings, 277.79 minutes in individual meetings, and 211.30 minutes in strategic team meetings;
- Participants averaged *receiving and accepting* 29.13 assignments over the course of the program, 21.9 assignments during family meetings and 7.23 during individual meetings;
- Participants averaged *completing* 30.26 assignments, 22.79 reported during family meetings and 7.47 reported during individual meetings;
- Participants averaged an assignment completion ratio of 1.1 across meeting sessions—completion ratios of 1.13 for assignments received at family meetings and 1.04 for assignments received at individual meetings—indicating that, on average, participants accomplished all assignments initially planned, and then more.

IMPACT EVALUATION RESULTS

DIRECT EFFECTS

Parents of eligible youth in the treatment and control groups, one parent or guardian each, were administered the FACES IV instrument, before and after the intervention. We examined their data for changes over that period in family cohesion and adaptability scales. As mentioned before, FACES scales serve as indicators of family function and dysfunction, and only those in the treatment group had participated in the treatment plan. We found no significant differences between the treatment group and control group in their pre-treatment FACES scores.

Post-treatment, however, treatment group participants (compared with the control group) had significantly increased their FACES scores for *balanced cohesion* and *flexibility* and for *family communication* and *satisfaction,* all indicators of functionality; they had significantly decreased their scores for two scales, *unbalanced disengaged* and *chaotic,* that serve as indicators of dysfunctionality. These differences between the two groups suggested that treatment group families had made greater progress than control group families towards adopting healthier modes of functioning. These findings were consistent with our other analyses, through which we found treatment to be associated with significant changes across several scales. That is, treatment showed a medium impact on increased scores for the scales measuring family functionality, *balanced cohesion* and *flexibility;* a large effect on decreased scores for scales measuring family dysfunctionality, *unbalanced disengaged* and *chaotic;* and a small-to-medium effect on increased scores for family scales *communication* and *satisfaction.*[19] (See appendix C, exhibit C1).

Risk and protective factor scores. We examined pre- and post-treatment risk and protective factor (IMC[I/R]) data for youths in both the treatment and control groups. Pretreatment,

19 *Significance,* here, indicates that a reported difference has a low likelihood of having occurred by chance. When a difference is not significant, it is more likely to be a chance occurrence. We also analyzed for the size of significant effects; in the technical version of this report, effect sizes are quantified; here, they are described in more general terms (i.e., small, medium, large).

most risk and protective scale scores did not differ significantly between the two groups.[20] We next conducted a multivariate regression analysis; post-treatment, for the treatment group as compared to the control group, the overall family domain score improved significantly, and several risk and protective factors showed significant change:

- Among risk factors, *weak parental supervision, rebelliousness, antisocial tendencies,* and *impulsive risk taking* significantly decreased for the treatment group;
- Among protective factors, *opportunities for community prosocial involvement, opportunities for family prosocial involvement,* and *interaction with prosocial peers* significantly increased for the treatment group;

Effect sizes were small for most differences between the groups over time; the greatest change observed was for *rebelliousness,* with a small effect.

Changes in delinquency. We examined the impact of the program on delinquency. None of the pre/post-treatment differences between the treatment and control groups attained statistical significance across the overall delinquency scores and the seven delinquency outcome measures (violent behavior, property crime, gang involvement, drug use, drug selling, carry a weapon, and truancy). Although post-treatment truancy was reduced for the treatment group, as compared to the control group, the difference was not statistically significant. We next conducted a multivariate regression analysis; again, we found no significant effect of treatment on overall delinquency scores or any of the seven delinquent behaviors, after accounting for possible effects related to pretreatment delinquency and geographical variations. (*See appendix D, ex. D1.*)

INDIRECT EFFECTS

The PIMFS theory of change that dictates the Proponte Más program design suggests that if treatment improves family function, that improvement is likely to decrease risk factors. The risk factor paradigm suggests that decreasing risk factors will bring about reductions in behavioral problems of interest, in this case, delinquency and violence, and those changes could possibly last a lifetime. If true, this would represent an indirect effect of treatment on violence or delinquency, where family function is an intervening variable, or mediator. To test this theory in the current setting, we asked: After treatment, which mediators from among the FACES scales and/or risk and protective factors, if any, were significantly associated with reductions in overall risk factor scores and delinquency?[21]

We first examined the indirect effect of treatment on overall risk factor score, mediated by changes in family adaptability and functionality. We tested a hypothetical causal pathway from treatment, through the FACES scales, to a possible change in overall risk factor score; the analytic model suggested that a causal effect was possible—specifically, we could expect that treatment could potentially reduce overall risk factor scores if mediated by increases for FACES scales *cohesion, flexibility, family communication,* and/or *family satisfaction* and by decreases in risk factors *disengagement, enmeshed, rigidity,* and/or *chaotic*. Analyzing Proponte Más data, we found significant indirect effects of treatment on overall risk factor scores through *family communication* and *satisfaction.*

We next examined the indirect effect of treatment on delinquency, mediated by changes in risk and protective factors. This time, we tested a hypothetical causal pathway from treatment, through risk and protective factors, to a possible change in delinquency. The analytic model again suggested that a causal effect was possible: Treatment could potentially reduce overall delinquency, mediated in part by decreases in risk factors *transitions and mobility, poor family management,* and *rebelliousness* and/or by increases in protective factors *opportunities for prosocial involvement, family attachment,* and *interaction with*

20 Three exceptions were *parental attitudes favorable toward drug use* (family domain) and *perceived availability of drugs* and *belief in the moral order* (individual/peer domain).

21 This isn't meant to suggest that a given approach would invariably result in a particular outcome, but rather that across all instances, rigorous analysis of the aggregated data should reveal an overall pattern of change. In the universe of complex human behaviors, this can at least point us in the direction of evidence-based strategies and actions that have a greater chance of being effective than those that are not evidence-based.

prosocial peers. Here, analyzing Proponte Más data, we found several complete mediation effects. Post-treatment, treatment group participants, when compared with control group participants, had significantly decreased their overall family domain average scores, a positive finding. In addition, several risk and protective scores across the family and individual/peer domains had significantly changed and were shown to have mediated reductions in overall delinquency:

- In the family domain, scores for four risk factors (i.e., *parental attitudes favorable to drug use, poor family management, family conflict,* and *weak parental supervision*) decreased, and scores for all three protective factors (i.e., *attachment, opportunities for prosocial involvement,* and *rewards for prosocial involvement*) increased.
- In the individual/peer domain, scores decreased for four risk factors (i.e., *rebelliousness, antisocial tendencies, impulsive risk taking, and negative peer influence*), and the score increased for protective factor *interaction with prosocial peers*.

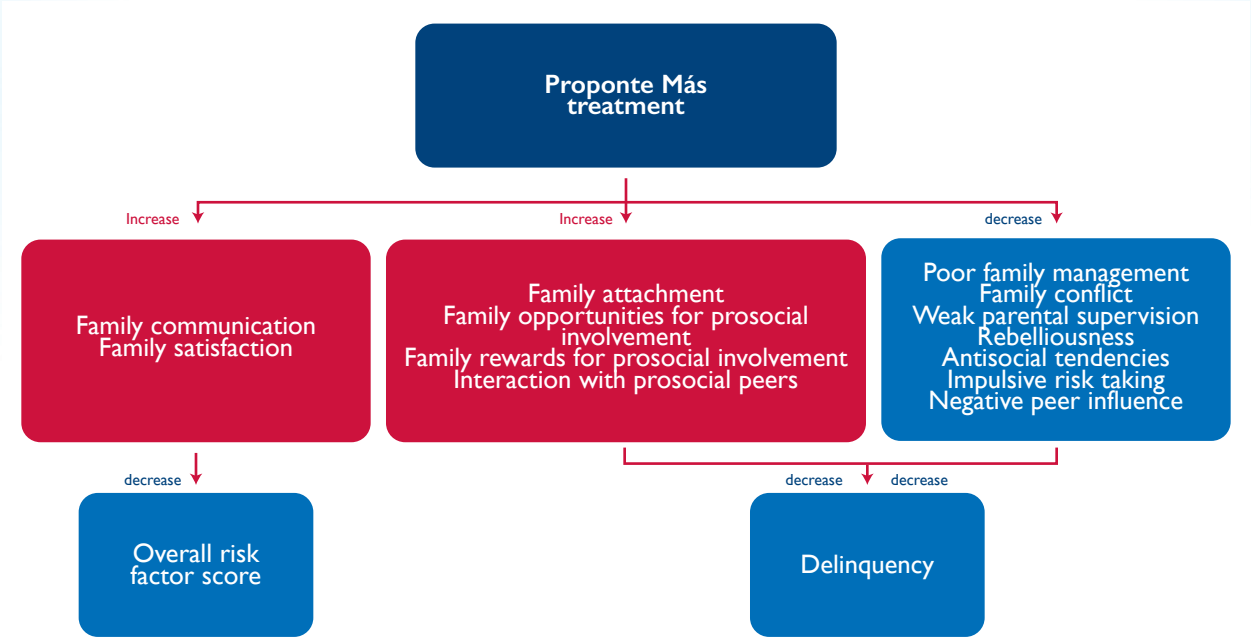

Exhibit 7. Mediated effect of treatment on overall risk factor score and delinquency through FACES IV and risk/protective factors

SPLIT-SAMPLE ANALYSES

We were interested in understanding how, if at all, the effects of the Proponte Más intervention treatment had differed for female youth compared to male youth; for younger youth (12 years old and younger) compared to those who were older (13 years old and older); and for youth who self-identified as gang members compared to those who claimed no gang membership. We conducted supplemental analyses to measure direct and indirect effects of treatment on the youths' overall risk factor score and overall delinquency, as above, but this time splitting the sample data for the paired subsets of participants. We then replicated the analyses conducted above; that is, we examined the hypothetical causal pathway between treatment, FACES scales, and overall risk factor score, and also the hypothetical pathway between treatment, risk and protective factors, and overall delinquency for each of these subsets.

EFFECTS BY SEX—FEMALE VS. MALE

We split the participant sample by sex, and then conducted the SEM analyses, as above, separately for females and for males. We looked first for indirect effects of changes in family cohesion and adaptability on overall risk factor scores:

- For females, treatment significantly increased *cohesion* and *flexibility, rigidity,* and *family satisfaction* scales and decreased *disengagement and chaotic* scales, suggesting a general improvement in family functionality
- For males, treatment significantly increased family *cohesion, flexibility, and communication* scales, through which the youths' overall risk factor scores improved.

With respect to the change in overall delinquency among females and males as a function of change in risk and protective factors:

- For both females and males, treatment significantly reduced overall delinquency through increasing protective factors *parental supervision* and *opportunities for prosocial involvement* and decreasing one risk factor, *rebelliousness*.
- Among female participants, treatment significantly reduced overall delinquency through increasing protective factors *family attachment* and *opportunities for prosocial involvement,* and decreasing risk factors *family conflict, impulsive risk taking,* and *negative peer influence,* as well as through decreasing overall family domain scores.

EFFECTS BY AGE—12 YEARS OLD & YOUNGER VS. 13 YEARS OLD & OLDER

We next split the participant sample by age, conducting SEM analyses for those 12 years old and younger and for those 13 years old and older. Again, we looked first for indirect effects of changes in family cohesion and adaptability on overall risk factor scores:

- For both age groups, indirect effects of treatment on overall risk factor scores were not significant, despite the fact that treatment had significantly increased *cohesion, flexibility, rigidity,* and *family satisfaction* scales and decreased *disengagement* and *chaotic* scales.
- An increase in the *family communication* scale was the exception, however; for both age groups, it significantly mediated the relationship between treatment and overall risk factor scores.

With respect to changes in overall delinquency between the younger youths and the older youths, as a function of change in risk and protective factors:

- For both age groups, treatment significantly reduced overall delinquency indirectly, through an increase in parental supervision (that is, a decrease in the family risk factor *weak parental supervision.*).
- For the younger group, treatment significantly reduced overall delinquency by decreasing three risk factors, *family conflict, rewards for social involvement,* and *antisocial tendencies*.
- For the older group, treatment significantly reduced delinquency through decreasing overall risk factor scores and overall family domain risk scores.
- For the older group, treatment also significantly reduced overall delinquency indirectly through significantly increasing several protective factors (i.e., *family management, family attachment, opportunities for prosocial involvement, rewards for prosocial involvement, interaction with prosocial peers, and social skills*) and reducing risk factors, *rebelliousness, impulsive risk taking,* and *negative peer influences*.

EFFECTS BY GANG MEMBERSHIP—NON-GANG VS. GANG MEMBER

Finally, we split the participant sample by gang membership status. We conducted the SEM analyses, as above, both for youth denying gang membership and for those claiming gang membership. For non-gang members, treatment had a direct association with overall risk factor scores through significant increases in *cohesion, flexibility, rigidity, family communication,* and *family dissatisfaction,* and significant decreases in *disengagement* and *chaotic* scales. For the those claiming gang membership, treatment was directly

associated with significant changes in a different combination of FACES scores—increases in *family satisfaction* and decreases in the *disengagement* and *chaotic* scales.

With respect to indirect effects of treatment on overall risk factor score, the non-gang group had significant decreases through improved *family communication* and *family satisfaction*. The group claiming gang membership also had a significant decrease in overall risk factor score, but through a mediating decrease in the *chaotic* scale.

With respect to change in delinquency as a function of change in risk and protective factors, for the non-gang group, treatment was associated with a decrease in overall delinquency, mediated through increases in several factors—*parental supervision, family attachment, family opportunities for prosocial involvement, rewards for prosocial involvement, and interaction with prosocial peers*—and decreases in *rebelliousness, antisocial tendencies, impulsive risk taking, and negative peer influence*. For the group claiming gang membership, however, no indirect effects of treatment were observed.

CONCLUSION

In 2016, Arizona State University's Center for Violence Prevention and Community Safety undertook an assessment of the Proponte Más PIFSM intervention model (Result 1), a family-based violence intervention. The evaluation assessed the impact of the treatment plan on overall risk factors for violence and delinquency among Honduran youths, 8–17 years of age. To our knowledge, this randomized control trial (RCT) has been one of the very few of its kind in the Northern Triangle, and, the first to examine the impact of a family-based intervention program on reducing risk factors and subsequent delinquency. This summary along with its companion technical report, presents our findings.[22]

The evaluation team first reviewed Proponte Más processes by which youths were referred, assessed for eligibility, provided with individual and family services, and finally re-assessed for post-treatment changes. In examining the process, we asked whether the intervention was carried out in accord with its founding principles and its written plan. Proponte Más claimed to have developed an evidence-informed process for referring at-risk youth for treatment to trained secondary prevention counselors, and that the services offered would have a track record of effectiveness among others with their risk levels, albeit never before in a Central American country among families in such distress. Overall, we found that Proponte Más had succeeded in attracting and retaining a substantial number of families and youth from its targeted population, and that its counselors had, in fact, delivered services to the secondary prevention treatment group in accord with its principles and its plan. Among our process-related findings:

- Youth referrals to the program originated with a cross-section of concerned adults—parents and other family members, social service providers, school and church personnel, and others; a small percentage of youth were self-referred.
- More than 98% (n=4495) of the youths referred received their family's permission to participate, evidenced by written informed consent agreements signed by parents and legal guardians.
- The distribution of referrals was not heavily weighted in one locale; relative proportions of those referred were fairly well distributed, ranging from nearly 13% to 25% each, across five cities selected for their high rates of violence.

In accord with the program's dual intentions of matching services with levels of risk and of evaluating the program with a randomized control trial, not all youth referred were provided services. Each candidate was assessed for risk factors, using the IMC, or *Instrumento de Medicion de Comportamientos,* an adaptation of a well-known eligibility assessment tool.[23] About 21% of them (n=944) were assessed with 4–9 risk factors, a

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23 The IMC was based on an established risk-factor-based instrument (YSET) that another Creative Associates International program had pilot tested in Honduras with an earlier youth cohort; the instrument was then modified to reflect cultural differences.

range within which secondary prevention could be expected to have a positive effect. These youths were declared eligible for services, and then were randomly assigned to either the control group or the treatment group. Youth assigned to the control group had no further involvement with the program until six months later, after the treatment group had completed its activities, when both groups were re-tested using the IMC(R).

For the treatment group, the program services delivered corresponded well with those planned. Three databases were maintained by the program, one for pre- and post-test IMC-I/R youth responses, one for pre- and post-test FACES IV parent responses, and a fidelity database that included regular counselor entries regarding treatment delivery. The evaluation team used these data to develop process evaluation measures and to assess program performance and results.

We measured the level of services delivered, in part, by time spent by counselors attending to clients and by number of assignments given and completed. We also measured client retention in both the treatment and control groups. In summary, program performance, with respect to services delivered and received and clients retained, met (or, in some instances, nearly exceeded) expectations:

- Counselors averaged spending about 20 hours with each client family and preparing their assignments—nearly 12 hours meeting with the family, about 4.5 hours meeting one-on-one with the youth, and 3.5 hours reviewing updating their treatment plan and assignments in strategic team meetings with other counselors.
- Clients averaged spending about 16.5 hours with their counselors—about 12 hours for the family as a whole and 4.5 hours one-on-one for the youth, in addition to spending untracked time completing assignments.
- Youth and their families, on average, completed all 29 assignments made by their counselors.
- With respect to retention, over 80% of the youth who qualified for treatment, along with their families, whether assigned to the treatment group (n=372) or the control group (n=406), completed the program and took the post-test; the dropout rate for both groups was below 20%, surprisingly low.

Proponte Más has demonstrated that given meaningful opportunities that include task-based support, it is likely that youth and their families can and will take concrete, manageable steps towards improving their lives in ways that should benefit their communities, as well. The Proponte Más families in this study accomplished this from the midst of endemic poverty, violence, inadequate education, and chaotic living arrangements. Contrarians argue that under such circumstances, the "just getting by" pressures of daily life—finding work, keeping everyone safe, putting food on the table—would preclude fulfilling added commitments, but our study suggests a more optimistic outlook. These process findings show that, when given evidence of specific risks for one's child and access to reliable and realistic help, the majority of families will find a way. Surprisingly, perhaps, this study shows that although experiencing chronic severe stress, most parents remained open to personalized feedback and the possibilities of alternative ways of parenting. For at least six months, the parents in the treatment group *lived* their desire and willingness to participate in several family-based interventions for their children's sake. The process outcomes indicate that Proponte Más delivered its secondary prevention program as planned and found an eligible client population willing and able to participate.

To examine *impact outcomes,* in order to determine what, if anything, had changed after treatment, we conducted a number of sophisticated, rigorous analyses. The details of our analyses and statistical outcomes are beyond the scope of this descriptive report; however, they are addressed in detail, complete with exhibits, in the technical report.[24] The following is a summary of those results.

The evaluation team reviewed and analyzed program data from all three program databases to determine whether treatment had had measurable impacts on risk factors, family function, and/or delinquency—that is, what had significantly

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changed over the course of the Proponte Más intervention, what differences were there in outcomes for the control and treatment groups, and to what extent could treatment reasonably be associated with specific changes? Overall, the findings (outlined in the *Impact Outcomes* section, above) provided an array of direct and indirect significant results that demonstrated how family-based interventions such as Proponte Más can succeed in increasing family functionality, and decreasing family dysfunction, and in shifting the balance between risk and protective factors (i.e., decreasing risk factors, increasing protective factors), which in turn can serve to decrease youth violence and delinquency in Honduras.

With respect to improving overall family function, for example, the Proponte Más intervention produced statistically significant effects that translated into improvements in family functioning: a large effect on decreasing *disengagement* and *chaos;* a medium effect on increasing *cohesion* and *flexibility;* and a small-to-medium effect on increasing family *communication* and *satisfaction*).[25] Improvements in these dimensions of family functioning have been tied to benefits in health and in other settings; many of these effects could potentially extend into other family and societal domains. For example, improvements in balanced family functioning have been associated with children being more compliant in taking medications and making better adjustments to chronic illness (Chaney & Peterson, 1989), and *family cohesion* has been associated with improved use of prenatal care resources (Kugler, Yeash, & Rumbaugh, 1993), with recovery from drug addiction (Kouneski, 2000), and with treatment of depression (Warner, Mufson, & Weissman, 1995). Improved family *flexibility* has been associated with improved coping behavior, social acceptance, and academic success (2000). Deficits in family functioning have been associated with decreases in scales that are known indicators of family strengths (i.e., *balanced cohesion* and *flexibility, family satisfaction* and *communication*) and with increases in scales that are indicators of family weaknesses (i.e., *disengagement, rigidity, chaos* and *complexity*); conversely, these all have all been associated with greater rates of aggressive behavior, rule breaking, fighting, assault and other problem behaviors (Đurišić, 2018) when there is movement in the wrong direction. We believe these results together with the prior research suggest that the impact on family functioning of Proponte Más's treatment could affect the participating families and their children, as well as future treatment recipients, in a variety of positive ways, and that this provides fertile ground for further experimentation.

Further, our analyses showed that Proponte Más had successfully reduced the number of risk factors and increased the number of protective factors among treatment group youth. The effect sizes of these changes were the same as or larger than those found in prior evaluations of other widely recognized risk factor-reduction programs (Feinberg et al., 2007). In the present study, our findings suggest that the Proponte Más intervention had a positive impact on family functioning, mediating the intervention's further positive impact on youth risk and protective factors and delinquency. The outcomes summarized in this report, and detailed in our technical report, suggest that family-based interventions such as Proponte Más, conducted inside the home and focused on those who reside in some of the most dangerous neighborhoods in the world, are possible and can be effective.

With respect to future related research needs, we have several recommendations. First, evaluations of this and similar types of programming should be evaluated over longer periods, with the length of follow up depending on the outcome measures of interest. For example, the current findings do not address questions of how long the effects of treatment might persist or how subsequent challenges and/or supportive follow-up activities might affect their sustainability. Second, a longer follow-up (preferably at least ten years, with an RCT) of eligible program participants from both the treatment and control groups would help determine the potential for longer-term impacts to occur in this and other likely settings (e.g., crime, employment, physical and mental health, immigration, education achievements). Such

25 For more information about these and other scales, see the earlier discussion of the IMC eligibility assessment tool; also, see appendices A and C for scales created for this program.

inquiries would be of added value to policy and decision makers and financing agencies, as well as to program developers and potential participants. Third, future research is needed using outcome measures that allow for triangulation. This study relies on self-report data from youth and their parents or guardians. Self-report data have been shown to be reliable in a variety of settings (Thornberry & Krohn, 2000), but combining these with administrative, official police and other objective data would be useful for confirmation.

When reviewing this study's outcomes, caution should be used in generalizing the findings to different populations. Outcomes for youth with 4–9 risk factors for violence or delinquency may not be applicable to populations other than those living in high-risk neighborhoods and exhibiting this range of risk factors. We do not know, for example, the effectiveness of this approach for youth who have fewer risk factors or those who are institutionalized.

Addressing the reliability of our analyses and the robustness of the outcomes, our use of a randomized control trial precluded a number of research and analytic issues that otherwise could have been encountered. Other potential limitations of the study methods could emerge, however, and we note them here. First, our methodology could have been limited by a testing effect; counselors (albeit not their own) conducted the post-tests, and some respondents may have been influenced by social desirability to demonstrate change.[26] Second, as noted earlier, these findings rely on self-report data; future research using official police or administrative data could strengthen them. Third, our follow-up period was short; further longitudinal analyses are needed, for all of the reasons outlined above.

To our knowledge, the current evaluation has been one of only a few randomized control trials to be conducted in Central America, and the first to examine the effect of a family-based intervention program on risk factor reduction and delinquency. The outcomes presented here suggest that family-based interventions and RCTs can be carried out effectively in the most violent and at-risk communities in the Western Hemisphere. Further, although future research is needed to confirm our results, it suggests that Proponte Más implemented an effective intervention with the ability to strengthen families, reduce risk factors, and lower delinquency. We recommend that Proponte Más be recognized and promoted for its work in the development and implementation of its approach to these problems, for undertaking this experimental evaluation, and for its capacity for providing technical assistance to others.

26 A testing effect occurs when a respondent's pretest or the intervention itself influences their responses to post-test items.

REFERENCES

Abt, T. and Winship, C. (2016). What works in reducing community violence: A meta-review and field study for the northern triangle. USAID: Washington DC.

Alvarado, N., Muggah, R., and Aguirre, K. (2015). Some key good and bad takeaways from a citizen security mapping tool for Latin America. International Development Bank. https://blogs.iadb.org/seguridad-ciudadana/en/some-key-good-and-bad-takeaways-from-a-citizen-security-mapping-tool-for-latin-america/

Assink, M., van der Put, C. E., Hoeve, M., de Vries, S. L., Stams, G. J. J., and Oort, F. J. (2015). Risk factors for persistent delinquent behavior among juveniles: A meta-analytic review. *Clinical Psychology Review,* 42, 47-61.

Chaney, J. M., and Peterson, L. (1989). Family variables and disease management in juvenile rheumatoid arthritis. *Journal of Pediatric Psychology,* 14, 389-403.

Cruz, J. M., and Portillo, N. (1998). Solidaridad y violencia en las pandillas del Gran San Salvador. Más allá de la vida loca. San Salvador: UCA Editores.

Development Services Group, Inc. (2014). *Family Therapy.* Literature review. Washington, D.C.: Office of Juvenile Justice and Delinquency Prevention. https://www.ojjdp.gov/mpg/litreviews/ FamilyTherapy.pdf

Đurišić, M. (2018). Relations and communication in families of children with externalizing behavior problems. *Research in Pedagogy,* 8(2), 111-120.

Farrington, D. P., and Welsh, B. C. (2003). Family-based prevention of offending: A meta-analysis. *Australian & New Zealand Journal of Criminology,* 36(2), 127-151.

Feinberg, M. E., Greenberg, M. T., Osgood, D. W., Sartorius, J., & Bontempo, D. (2007). Effects of the Communities That Care model in Pennsylvania on youth risk and problem behaviors. *Prevention Science,* 8(4), 261-270.

Hawkins, J. D., Catalano, R. F., and Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychological Bulletin, 112(1)*, 64.

Jaitman, L., and Guerrero Compeán, R. (2015). Closing knowledge gaps: Toward evidence-based crime prevention policies in Latin America and the Caribbean. Inter-American Development Bank.

Jolliffe, D., Farrington, D. P., Piquero, A. R., Loeber, R., and Hill, K. G. (2017). Systematic review of early risk factors for life-course-persistent, adolescence-limited, and late-onset offenders in prospective longitudinal studies. *Aggression and Violent Behavior, 33,* 15-23.

Katz, C., Hedberg, E., Decker, S., Nuno, L., and Daniels, A. (2017). An Interim Evaluation of Proponte Más: A Secondary Prevention Program. Phoenix: Arizona State University.

Knerr, W., Gardner, F., and Cluver, L. (2013). Improving positive parenting skills and reducing harsh and abusive parenting in low-and middle-income countries: A systematic review. *Prevention Science,* 14(4), 352-363.

Kouneski, E. F. (2000). The family circumplex model, FACES II, and FACES III: Overview of research and applications. *Recuperado el,* 1, 04-09.

Kugler, J. P., Yeash, J., and Rumbaugh, P. C. (1993). The impact of sociodemographic, health care system, and family function variables on prenatal care and utilization in a military setting. The Journal of Family Practice, 37, 143-147.

Maalouf, W., and Campello, G. (2014). The influence of family skills programmes on violence indicators: Experience from a multi-site project of the United Nations Office on Drugs and Crime in low and middle income countries. Aggression and Violent Behavior, 19(6), 616-624.

Maguire, E. R., Wells, W., and Katz, C. M. (2011). Measuring community risk and protective factors for adolescent problem behaviors: Evidence from a developing nation. Journal of Research in Crime and Delinquency, 48(4), 594-620.

Meyer, M. N., Heck, P. R., Holtzman, G. S., Anderson, S. M., Cai, W., Watts, D. J., and Chabris, C. F. (2019). Objecting to experiments that compare two unobjectionable policies or treatments. Proceedings of the National Academy of Sciences, 116(22), 10723-10728.

Moser, C. O., and Van Bronkhorst, B. (1999). Youth violence in Latin America and the Caribbean: Costs, causes, and interventions. World Bank, Latin America and the Caribbean Region, Environmentally and Socially Sustainable Development SMU.

Muggah, R., and Aguirre, K. (2013). Mapping citizen security interventions in Latin America: reviewing the evidence. *NOREF Report, October.*

Olson, D. (2011). FACES IV and the circumplex model: Validation study. *Journal of marital and family therapy,* 37(1), 64-80.

Rodgers, Dennis, and Baird, Adam. (2014, July 22). *Understanding Gangs in Contemporary Latin America.* Forthcoming in Scott H. Decker & David C. Pyrooz (eds.), Handbook of Gangs and Gang Responses, New York: Wiley, 2015. At https://ssrn.com/abstract=2469973

Salomon, L. (1994). *La Violencia en Honduras 1980–1993*. CEDOH: Tegucigalpa.

Salomon, L. Castellanos, J. and Flores, M. (1999). *La deLincuencia Juvenil: Los Menores Infractores en Honduras*. CEDOH: Tegucigalpa.

Sanchez Velasquez, G. (2008). *Maras, Pandillas Y Desviacion Social.* Editorial Dunken: Buenos Aires.

Simons, R. L., Johnson, C., Conger, R. D., and Elder Jr, G. (1998). A test of latent trait versus life-course perspectives on the stability of adolescent antisocial behavior. *Criminology,* 36(2), 217-244.

Smutt. M., & Miranda, L.E. (1998). El fenómeno de las pandillas en El Salvador. San Salvador: UNICEF-FLACSO.

Thornberry, T. P., and Krohn, M. D. (2000). The self-report method for measuring delinquency and crime. Criminal justice, 4(1), 33-83.

Warner, V., Mufson, L., and Weissman, M. M. (1995). Offspring at high and low risk for depression and anxiety. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 786-797.

Vincent, G. M., Drawbridge, D., and Davis, M. (2019). The validity of risk assessment instruments for transition-age youth. *Journal of Consulting and Clinical Psychology,* 87(2), 171-183

APPENDIX A

IMC DIAGNOSTIC TOOL – RISK & PROTECTIVE FACTORS

(INSTRUMENTO DE MEDICION DE COMPORTAMIENTOS)

Table A1. Scales and items distribution (n=4495)

Factors and Items	# of items	Range	Mean	SD	Response categories
Antisocial Tendencies	*7*				
I am kind to others		1-5	2.03	1.21	1=always…5=never
I respect the feelings of others		1-5	1.84	1.20	1=always…5=never
I get angry easily		1-5	3.39	1.49	1=never…5=always
I am obedient		1-5	2.67	1.32	1=always…5=never
I threaten others to get what I want		1-5	1.39	0.94	1=never…5=always
People "blame me" for lying or cheating		1-5	2.53	1.52	1=never…5=always
I take things that don't belong to me		1-5	1.30	0.77	1=never…5=always
Weak Parental Supervision	*5*				
When I go out, I let my parents or guardians know where I am going		1-5	1.91	1.36	1=always…5=never
My parents or guardians ask me where I am going when I leave the house		1-5	1.46	1.03	1=always…5=never
My parents or guardians know who I am with when I'm not at home or school		1-5	1.93	1.39	1=always…5=never
My parents or guardians know who my friends are		1-5	1.84	1.30	1=always…5=never
I feel that my parents or guardians care about what I do		1-5	1.61	1.18	1=always…5=never
Critical Life Events	*9*				
In the last year, have you...					
…failed a grade in school?		0-1	0.19	0.39	0=no, 1=yes
…been expelled or suspended from your school due to disciplinary reasons?		0-1	0.09	0.28	0=no, 1=yes
…had a girlfriend/boyfriend ... first time this year?		0-1	0.35	0.48	0=no, 1=yes
…broken up with/ended a relationship with a boyfriend/girlfriend or been broken up with by a boyfriend/girlfriend?		0-1	0.30	0.46	0=no, 1=yes
…fought or had a problem with a friend?		0-1	0.53	0.50	0=no, 1=yes
…tried "hanging out" with a new friend group?		0-1	0.64	0.48	0=no, 1=yes
…felt forced to abandon school for any reason?		0-1	0.26	0.44	0=no, 1=yes
…has someone close to you died or been seriously hurt due to an accident or illness?		0-1	0.48	0.50	0=no, 1=yes
…has someone close to you died (or was murdered) due to violence?		0-1	0.26	0.44	0=no, 1=yes

Factors and Items	# of items	Range	Mean	SD	Response categories
Impulsive Risk Taking	*4*				
Sometimes I like to do dangerous activities for fun		1-5	2.59	1.26	1=strongly disagree… 5=strongly agree
Sometimes I find it exciting to do things that could get me in trouble		1-5	2.59	1.23	1=strongly disagree… 5=strongly agree
I frequently do things without thinking if I'll get in trouble or not		1-5	2.72	1.26	1=strongly disagree… 5=strongly agree
I like to have fun when I can, even if I'll get in trouble for doing them later on		1-5	2.96	1.30	1=strongly disagree… 5=strongly agree
Neutralization of Guilt	*6*				
It is okay to lie if it keeps my friends from getting in trouble with their parents or with the police		1-5	2.55	1.16	1=strongly disagree… 5=strongly agree
It is okay to lie to someone to keep myself from getting in trouble with them		1-5	2.50	1.14	1=strongly disagree… 5=strongly agree
[Cont'd - Exhibit A1. Scales and items distribution (n=4495)]					
It is okay to steal something if someone is rich and can easily replace it		1-5	1.96	0.81	1=strongly disagree… 5=strongly agree
It is okay to steal small items from a store without paying because stores have a lot of money and this does not affect them		1-5	1.91	0.80	1=strongly disagree… 5=strongly agree
It is okay to hit others if others hit me first		1-5	3.03	1.31	1=strongly disagree… 5=strongly agree
It is okay to hit people if it's for my own defense		1-5	3.39	1.26	1=strongly disagree… 5=strongly agree
Negative Peer Influence	*3*				
If your friends were getting in trouble in your home, would you continue being their friend?		1-5	2.23	0.76	1=definitely no… 5=definitely yes
If your friends were getting in trouble at school, would you continue being their friend?		1-5	2.19	0.72	1=definitely no… 5=definitely yes
If your friends were getting in trouble with the police, would you continue being their friend?		1-5	1.95	0.55	1=definitely no… 5=definitely yes
Peer Delinquency a	*5*				
During the last six months, how many friends have…					
…stolen something?		1-5	1.43	0.83	1=none…5=all
…attacked someone?		1-5	1.42	0.87	1=none…5=all
…sold marijuana or other illegal drugs?		1-5	1.09	0.43	1=none…5=all
…used illegal drugs?		1-5	1.21	0.67	1=none…5=all
…belong to or have joined a gang or "mara"?		1-5	1.09	0.47	1=none…5=all

Factors and Items	# of items	Range	Mean	SD	Response categories
Influence of Gangs in the Family	*2*				
Including all of the people that you consider part of your family; how many family members think that you will most likely join a gang one day?		0-4	0.39	0.98	0=0, 1=1, 2=2, 3=3, 4= 4 or more
Currently, how many of your family members are in a gang?		0-4	0.32	0.82	0=0, 1=1, 2=2, 3=3, 4= 4 or more
Crime and Substance Abuse	*16*				
In the last six months…					
...consumed alcohol or smoked cigarettes?		0-1	0.14	0.35	0=no, 1=yes
...used marijuana or other illegal drugs?		0-1	0.04	0.21	0=no, 1=yes
…skipped class?		0-1	0.17	0.38	0=no, 1=yes
…avoided paying for a movie, taxi or bus?		0-1	0.12	0.33	0=no, 1=yes
…broken or destroyed something on purpose that was not yours?		0-1	0.13	0.33	0=no, 1=yes
…carried a hidden weapon around for protection?		0-1	0.02	0.16	0=no, 1=yes
…illegally painted a wall or building – done "graffiti?"		0-1	0.08	0.28	0=no, 1=yes
…stolen something of low value?		0-1	0.13	0.33	0=no, 1=yes
…stolen something of high value?		0-1	0.01	0.11	0=no, 1=yes
…entered or tried to enter a building to try and steal something?		0-1	0.01	0.09	0=no, 1=yes
…hit someone with the intention of hurting them?		0-1	0.12	0.33	0=no, 1=yes
…attacked someone with a weapon?		0-1	0.01	0.10	0=no, 1=yes
…used a weapon or physical force to get money from someone else?		0-1	0.00	0.06	0=no, 1=yes
…participated in fights with youths from other neighborhoods?		0-1	0.08	0.27	0=no, 1=yes
…participated in gang fights?		0-1	0.01	0.11	0=no, 1=yes
…sold marijuana or other drugs/helped others sell drugs?		0-1	0.01	0.10	0=no, 1=yes

a Responses of those who reported not having a group of friends were coded "none" for all items in peer delinquency factor.

APPENDIX B

DATA AND METHODS: COMPOSITION OF SAMPLE

Exhibit B1. CONSORT Flow Diagram

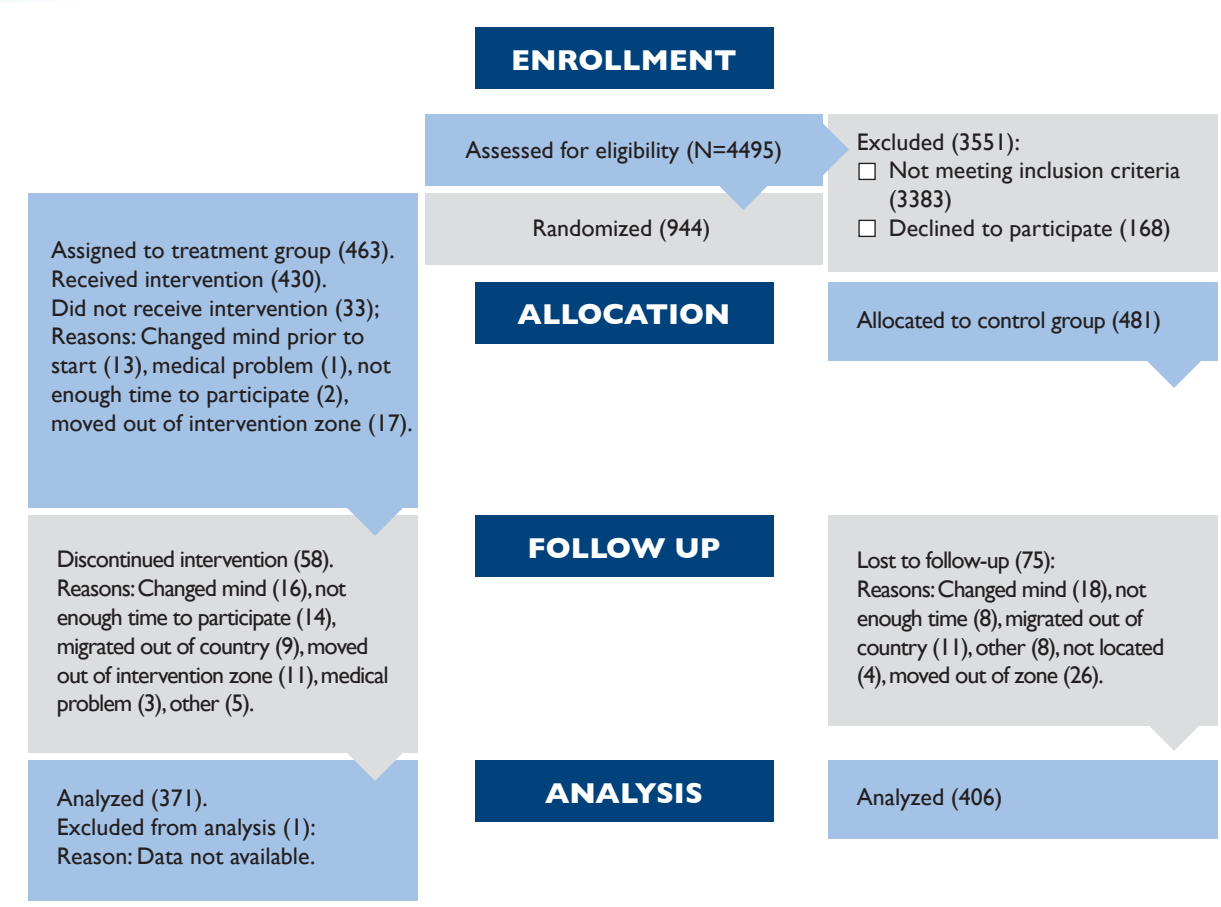

Exhibit B2. Demographic characteristics, treatment & control groups, by zone (n=778)

	Treatment Group (T0; n=371)		Control Group (C0; n=406)		
	n	%	n	%	sig.
Gender					
Male	246	66.13	251	61.82	
Female	126	33.87	155	38.18	
Agea (mean & sd)		12.3 (2.5)		12.5 (2.5)	
Currently in school	323	86.83	341	83.99	
Parental presence					
Mother & father/female & male figure	291	78.45	314	77.34	
Single mother/female figure	69	18.59	80	19.70	
Single father/male figure	9	2.42	8	1.97	
No parent/adult guidance	2	0.54	4	0.99	

	Treatment Group (T0; n=371)		Control Group (C0; n=406)		
	n	%	n	%	sig.
Zone					
San Miguel	25	6.72	25	6.16	
Carrizal	30	8.06	33	8.13	
Predregal	18	4.84	20	4.93	
Villanueva	17	4.57	21	5.17	
Chamelecon	30	8.06	27	6.65	
Rivera Hernandez	21	5.65	24	5.91	
Satelite-Medina	34	9.14	27	6.65	
Lopez-Arellano	30	8.06	35	8.62	
Choloma Centro	15	4.03	19	4.68	
Bonitillo	56	15.05	59	14.53	
Las Mercedes	55	14.78	74	18.23	
Zona A: El Centro Poli-deportivo	6	1.61	7	1.72	
Zona B: 4E - SJ - LB - BV	31	8.33	30	7.39	
Zona C: Tornabe	4	1.08	5	1.23	

*$p < .05$; ** $p < .01$; *** $p < .001$

APPENDIX C

FACES IV SCALES

Exhibit C1. Items and responses for FACES IV at pre-treatment (n=777)

Scales	# of Items	Range	Mean	SD	Response Categories
Balanced scales:					
Balanced cohesion	*7*	*7-35*	*26.32*	*3.95*	
Family members are involved in each other's lives.		1-5	3.81	0.82	1=Strongly disagree … 5=Strongly agree
Family members feel very close to each other.		1-5	3.63	1.00	
Family members are supportive of each other during difficult times.		1-5	3.97	0.90	
Family members consult other family members on important decisions.		1-5	3.72	0.99	
Family members like to spend some of their free time with each other.		1-5	3.86	0.88	
Although family members have individual interests, they still participate in family activities.		1-5	3.86	0.77	
Our family has a good balance of separateness and closeness.		1-5	3.47	0.97	

Scales	# of Items	Range	Mean	SD	Response Categories
Balanced flexibility	*7*	*7-35*	*25.46*	*3.80*	
Our family tries new ways of dealing with problems.		1-5	3.76	0.88	1=Strongly disagree … 5=Strongly agree
Parents equally share leadership in our family.		1-5	3.50	1.11	
Discipline is fair in our family.		1-5	3.88	0.86	
My family is able to adjust to change when necessary.		1-5	3.68	0.90	
We shift household responsibilities from person to person.		1-5	3.08	1.16	
We have clear rules and roles in our family.		1-5	3.71	0.97	
When problems arise, we compromise.		1-5	3.85	0.90	
Unbalanced scales:					
Disengaged	*7*	*7-35*	*20.78*	*3.89*	
We get along better with people outside our family than inside.		1-5	2.94	1.13	1=Strongly disagree … 5=Strongly agree
Family members seem to avoid contact with each other when at home.		1-5	2.64	1.08	
Family members know very little about the friends of other family members.		1-5	3.28	1.05	
Family members are on their own when there is a problem to be solved.		1-5	2.90	1.14	
Our family seldom does things together.		1-5	2.96	1.12	
Family members seldom depend on each other.		1-5	3.03	1.08	
Family members mainly operate independently.		1-5	3.02	1.07	
Enmeshed	*7*	*7-35*	*22.18*	*3.13*	
We spend too much time together.		1-5	3.51	1.02	1=Strongly disagree … 5=Strongly agree
Family members feel pressured to spend most free time together.		1-5	2.55	1.04	
Family members are too dependent on each other.		1-5	3.49	0.97	
Family members have little need for friends outside the family.		1-5	2.93	1.02	
We feel too connected to each other.		1-5	3.12	1.07	
We resent family members doing things outside the family.		1-5	3.69	1.03	
Family members feel guilty if they want to spend time away from the family.		1-5	2.89	1.08	
Rigid	*7*	*7-35*	*24.18*	*3.54*	
There are strict consequences for breaking the rules in our family.		1-5	3.36	1.11	1=Strongly disagree … 5=Strongly agree
There are clear consequences when a family member does something wrong.		1-5	3.68	0.96	
Our family has a rule for almost every possible situation.		1-5	3.45	1.03	
Our family is highly organized.		1-5	3.31	1.05	
Our family becomes frustrated when there is a change in our plans or routines.		1-5	3.09	1.07	
It is important to follow the rules in our family.		1-5	4.12	0.64	
Once a decision is made, it is very difficult to modify that decision.		1-5	3.16	1.11	

Scales	# of Items	Range	Mean	SD	Response Categories
Chaotic	*7*	*7-35*	*20.05*	*4.67*	
We never seem to get organized in our family.		1-5	3.19	1.12	1=Strongly disagree … 5=Strongly agree
It is hard to know who the leader is in our family.		1-5	2.49	1.12	
Things do not get done in our family.		1-5	3.05	1.08	
It is unclear who is responsible for things (chores, activities) in our family.		1-5	2.81	1.17	
There is no leadership in our family.		1-5	2.63	1.20	
Our family has a hard time keeping track of who does various household tasks.		1-5	3.04	1.16	
Our family feels hectic and disorganized.		1-5	2.85	1.16	
Family scales:					
Family communication	*10*	*10-50*	*35.44*	*6.35*	
Family members are satisfied with how they communicate with each other.		1-5	3.48	1.02	1=Strongly disagree … 5=Strongly agree
Family members are very good listeners.		1-5	3.66	0.91	
Family members express affection to each other.		1-5	3.54	1.01	
Family members are able to ask each other for what they want.		1-5	3.68	0.88	
Family members can calmly discuss problems with each other.		1-5	3.39	1.05	
Family members discuss their ideas and beliefs with each other.		1-5	3.67	0.88	
When family members ask questions of each other, they get honest answers.		1-5	3.59	0.93	
Family members try to understand each other's feelings		1-5	3.72	0.88	
When angry, family members seldom say negative things about each other.		1-5	3.03	1.11	
Family members express their true feelings to each other.		1-5	3.68	0.87	
Family satisfaction	*10*	*10-50*	*30.89*	*7.50*	
The degree of closeness between family members.		1-5	3.32	1.04	1=Very Dissatisfied … 5=Extremely Satisfied
Your family's ability to cope with stress.		1-5	2.92	1.03	
Your family's ability to be flexible.		1-5	3.07	0.97	
Your family's ability to share positive experiences.		1-5	3.37	0.97	
The quality of communication between family members.		1-5	3.14	1.09	
Your family's ability to resolve conflicts.		1-5	3.09	1.03	
The amount of time you spend together as a family.		1-5	3.18	1.07	
The way problems are discussed.		1-5	3.02	1.04	
The fairness of criticism in your family.		1-5	2.69	1.05	
Family members concern for each other.		1-5	3.09	1.11	

APPENDIX D

Exhibit D1. SEM Analysis - Overall delinquency as an outcome (n=777)

	Treatment -> Mediating variables			Mediating variables -> Overall delinquency			Treatment -> Overall delinquency			95% CI
	a	(se)	Sig.	*b*	(se)	Sig.	*c'*	(se)	Sig.	
Community Risk Factors										
Transitions and Mobility	-0.02	0.03		0.09	0.06		0.02	0.05		-0.007; 0.003
Low Neighborhood Attachment	0.05	0.04		0.16	0.07	*	0.02	0.05		-0.002; 0.014
Community Disorganization	0.02	0.03		0.19	0.08	*	0.01	0.05		-0.006; 0.012
Laws and Norms Favorable to Drug Use	0.02	0.03		0.24	0.08	**	0.02	0.05		-0.007; 0.014
Perceived Availability of Drugs	-0.00	0.03		0.52	0.13	***	0.04	0.05		-0.022; 0.023
Community Protective Factors										
Opportunities for Prosocial Involvement	0.11	0.03	**	-0.03	0.06		0.02	0.06		-0.013; 0.007
Rewards for Prosocial Involvement	-0.06	0.03		0.18	0.07	*	0.03	0.06		-0.018; 0.000
Overall Community Domain Average	0.01	0.03		0.41	0.11	***	0.03	0.05		-0.015; 0.021
Family Risk Factors										
Family History of Antisocial Behavior	0.07	0.03	*	0.41	0.11	***	0.04	0.05		0.002; 0.042
Parental Attitudes Favorable Toward Drug Use	0.07	0.04		0.30	0.08	***	-0.01	0.05		0.000; 0.029
Poor Family Management	-0.07	0.03	*	0.42	0.11	***	0.06	0.06		-0.041; -0.001
Family Conflict	-0.09	0.03	**	0.48	0.12	***	0.05	0.05		-0.056; -0.006
Weak Parental Supervision	-0.16	0.03	***	0.43	0.11	***	0.10	0.06		-0.074; -0.020
Family Gang Influence	0.03	0.03		0.29	0.10	**	-0.00	0.06		-0.005; 0.021
Family Protective Factors										
Attachment	0.07	0.03	*	-0.35	0.09	***	0.04	0.05		-0.033; -0.002
Opportunities for Prosocial Involvement	0.10	0.03	**	-0.28	0.09	**	0.05	0.06		-0.035; -0.005
Rewards for Prosocial Involvement	0.09	0.03	**	-0.34	0.10	***	0.06	0.06		-0.039; -0.005
Overall Family Domain Average	-0.09	0.03	**	0.68	0.16	***	0.08	0.05		-0.080; -0.014

	Treatment -> Mediating variables			Mediating variables -> Overall delinquency			Treatment -> Overall delinquency			95% CI
	a	(se)	Sig.	*b*	(se)	Sig.	*c'*	(se)	Sig.	
Peer/Individual Risk Factors										
Rebelliousness	-0.19	0.03	***	0.41	0.11	***	0.11	0.06		-0.085; -0.024
Rewards for Antisocial Involvement	-0.04	0.03		0.37	0.10	***	0.04	0.05		-0.064; 0.013
Favorable Attitudes Toward Drug Use	0.04	0.04		0.42	0.10	***	-0.01	0.05		-0.007; 0.033
Favorable Attitudes Toward Antisocial Behavior	0.09	0.04	**	0.39	0.10	***	-0.03	0.05		0.005; 0.047
Perceived Risks of Drug Use	0.08	0.04	*	0.32	0.09	***	-0.00	0.05		0.002; 0.033
Friends' Use of Drugs	0.01	0.03		0.62	0.15	***	0.02	0.05		-0.049; 0.064
Interaction with Antisocial Peer	0.08	0.03	*	0.47	0.12	***	-0.03	0.05		0.004; 0.054
Intentions to Use	0.01	0.03		0.43	0.11	***	0.03	0.05		-0.036; 0.024
Antisocial Tendencies	-0.08	0.04	*	0.45	0.11	***	0.05	0.05		-0.049; -0.003
Critical Life Events	0.08	0.03	*	0.46	0.11	***	-0.02	0.05		0.003; 0.047
Impulsive Risk Taking	-0.11	0.03	**	0.58	0.14	***	0.09	0.06		-0.082; -0.014
Neutralization of Guilt	-0.05	0.04		0.56	0.13	***	0.04	0.05		-0.051; 0.008
Negative Peer Influence	-0.08	0.03	*	0.29	0.08	***	0.05	0.06		-0.032; -0.002
Peer Delinquency	0.07	0.03	*	0.56	0.14	***	-0.05	0.05		0.002; 0.060
Peer/Individual Protective Factors										
Belief in the Moral Order	0.05	0.04		-0.57	0.13	***	0.05	0.05		-0.048; 0.008
Rewards for Prosocial Involvement	-0.03	0.04		-0.22	0.08	**	0.01	0.05		-0.006; 0.015
Interaction with Prosocial Peers	0.13	0.03	***	-0.21	0.07	**	0.05	0.06		-0.034; -0.004
Social Skills	0.05	0.04		-0.48	0.13	***	0.04	0.05		-0.042; 0.006
Overall Peer/Individual Domain Average	-0.04	0.03		0.81	0.20	***	0.06	0.07		-0.069; 0.018
Overall Risk Factor Average Score	-0.05	0.03		0.83	0.19	***	0.08	0.04		-0.078; 0.006

95% IC = 95% confidence intervals of total indirect effect (10,000 bootstrap replications)
*$p < .05$; ** $p < .01$; *** $p < .001$*

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