

# Gangs at School: Exploring the Socioemotional skills of Students in El Salvador and Honduras

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## Abstract

This study describes the existing gaps between students exposed to different degrees of violence, highlighting differences in the development of socio-emotional skills and the levels of Resilience. A self-administered survey instrument was designed for randomly chosen students whose results have already been previously explored by Aminta Gutiérrez et al. (2017). This study differs from the previous one by considering three groups of students: students in gang-free contexts, gang contexts, and students belonging to gangs in El Salvador and Honduras. Young people in gang contexts present lower levels of Resilience, associated with an affective detachment that they maintain with their main caregivers. In addition, students in such contexts have lower expectations for the future, locus of control, and less attachment to their teachers than youth in non-gang contexts. Young people who claim to participate in gangs also present statistical differences in their levels of Resilience and the development of socio-emotional skills and are characterized by the rest of their peers by having lower levels of empathy, solidarity, and expectations for the future.

**Keywords**— Socioemotional skills, Gangs, Resilience, Violence, Education, Honduras, El Salvador

## 1 Introduction

Crime rates in El Salvador and Honduras have remained high during the last decades. This has generally been attributed to gangs distributed throughout the countries. Homicide rates exceed the averages for Latin and Central America. In 2015, El Salvador reached a maximum homicide peak, exceeding the rate of 100 homicides per one hundred thousand inhabitants, five times higher than the Latin American average and 27 times higher than the OECD members (UNODC, 2020). In the case of Honduras, the homicide rate reached a peak of 80 homicides per one hundred thousand inhabitants between 2011 and 2012 and has fallen to the lowest point during the last decade to 40 in 2019. However, the Central American country remains the third country with the most homicides per capita in Latin America, only after Venezuela and Jamaica.

The gangs have managed to enter the school; according to the Ministry of Education of El Salvador, more than 40% of the schools are in contexts with gangs, and about 16% of the schools report that some students belong to these criminal groups (Ministry of Education of El Salvador, 2015). Students in gang settings are 6 percent more likely to be robbed, 6 percent more likely to be physically assaulted, and 5 percent more likely to be threatened with weapons. At the school level, young people also report more recurrence of absences and lower performance in school. Students exposed to higher levels of violence tend to produce higher cortisol levels, limiting their learning (Biehl, Fernández-Coto and Elizondo Barboza, 2021). Youth entry into gangs coincides with compulsory schooling ages. Usually, 60% of gang members have joined gangs before reaching 16 (Cruz et al., 2017).

Young people in gang contexts present lower levels of Resilience, mainly associated with an affective detachment that they maintain with their caregivers in their homes. In addition, students in such contexts have lower levels of expectations for the future, locus of control, and less attachment to their teachers compared to youth in non-gang contexts. On the other hand, students who call themselves gang members show even lower levels of Resilience. They are characterized by the rest of their classmates by having lower levels of empathy and expectations for the future.

Young people with fewer social-emotional skills tend to have lower school performance, fewer job opportunities, lower wages, and poorer physical and psychological health (Almlund et al., 2011). El Salvador and Honduras face the challenge of reducing the skills gap between different social contexts affected by crime and the presence of gangs.

The school, however, represents multiple opportunities to mitigate both problems: crime levels and the development of socio-emotional skills (Chioda, 2017; Sanchez Puerta, Valerio and Bernal, 2016). Unfortunately, Latin American countries have not effectively incorporated socio-emotional skills into the school curriculum (Busso et al., 2012). They have not been able to identify significant socio-emotional gaps among their students, especially in those exposed to high levels of violence.

The school could mitigate crime in vulnerable areas due to mandatory schooling requirements. Once young people are out of school, it is challenging to design programs that intervene in young people with a high probability of crime. Social programs that reduce crime with a training approach attract low-risk individuals. This observation helps to explain the significant effects that policies that prevent school dropout have on crime rates (Chioda, 2017). Likewise, risky and criminal behaviors in adulthood and youth are highly correlated with misbehaviors in childhood that are easily identifiable. With adequate support would reduce crime and reduce the costs of less effective programs during the adult life of criminals (Cohen and Piquero, 2009).

In addition, the evidence has shown that programs that allow the development of socio-emotional skills could improve crime levels (aggressiveness, violence, drug use, etc.) and school dropout levels (Heckman, Stixrud and Urzua, 2006; Algan et al., 2012; Cook et al., 2014).

The present study identifies gaps in the levels of Resilience and socio-emotional skills in students in contexts with and without gangs, which have been very little studied despite the strong presence of gangs in schools in Honduras and El Salvador. Due to the nature of the study, the results are descriptive and allow identifying students' socio-emotional needs in different contexts. The study presents an appropriate diagnosis to design educational policies at the curricular level and in teacher training. In the end, a series of recommendations are made to reduce the levels of crime and the development of socio-emotional skills in school; however, the main objective of this research is to identify the socio-emotional gaps of young people.

### **1.1 Victims of homicides and crimes**

In 2014 a study indicated that the Latin American countries with the highest crime costs were Honduras and El Salvador. The authors indicate that the total costs as a percentage of GDP oscillate by 6.50 and 6.16 percentage points, respectively; this includes social costs, private security, and government administrative expenses (Jaitman et al., 2017). However, other studies have indicated that the costs of crime in El Salvador could reach up to 16% of GDP (Peñate et al., 2016). Based on this methodology, it is calculated that the economic cost of direct violence against young people for 2017, particularly in health and institutional expenses, could range between 2.4% and 3.3% of GDP (United Nations Development Programme, 2018).

It is estimated that, of the total homicide victims, approximately 45% were men between 15 and 29 years of age in both Honduras and El Salvador (Jaitman et al., 2017). In 2014, the homicide rate for men between 15 and 29 years of age exceeded 200 homicides per 100,000 inhabitants in both countries, more than double the national rate and more than five times the same age range in young people from Latin America. Homicides have become the leading cause of death in the young population, with a higher incidence in men.

In the case of women, sexual violence is one of the events that affect them most frequently. The rate of sexual violence against women in 2017 was 175 and 67 per one hundred thousand inhabitants for El Salvador and Honduras, respectively, concentrating mainly on women between 10 and 18 years of age. Although homicides and direct violence affect men more, it impacts women's decisions to migrate more than men. In the case of El Salvador, according to the 2017 National Development and Mobility Survey, the percentage of women who indicate violence and insecurity as a reason for leaving the country is approximately 12 percentage points higher than that of men (Dirección General de Estadística y Censos, 2017).

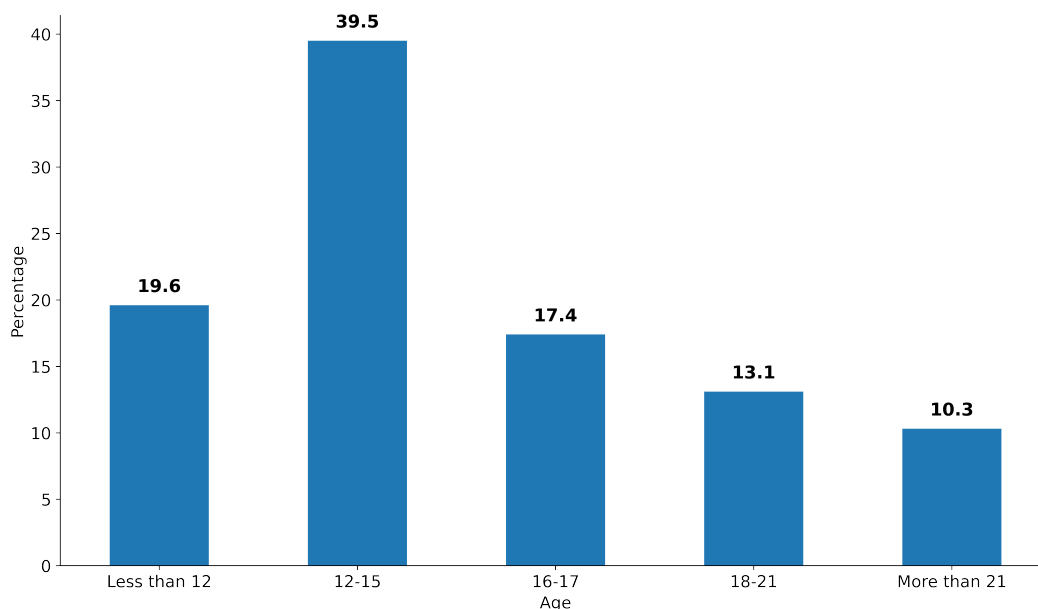
### **1.2 Victimizators of homicides and crimes**

Gangs play an important role in the perpetuation of violence. The level of responsibility for all crimes is not yet precise. However, some data estimate that 55% and 27% of unknown homicides are related to hitmen/maras in Honduras and El Salvador, respectively (*Instituto Universitario en Democracia, Paz y Seguridad*, 2020). These youth organizations have expanded over the last 20 years and have become more developed structures. There are various gang organizations, the main ones being the Mara Salvatrucha (MS-13), the 18th Street Revolutionaries, and the 18th Street Sureños. Some data estimate that 70% of gang members in Central America are concentrated in these two countries (UNODC, 2007).

The profile of gang members remains predominantly male and young (most of them are between 13 and 30 years old). According to Cruz et al. (2017), the subjects that are part of the gangs in El Salvador were born, grew up, or belong to the most disadvantaged sectors of society (7 out of 10 come from households with a

monthly income of less than \$ 250) and come from dysfunctional families or disintegrated. Most of them dropped out of school before reaching the age of 16, did not complete high school in the school system, and 80% have not had a regular job in the formal or informal sector. On average, the age of joining a gang is 15 years old.

Figure 1. Age to join gangs (%)



Source: Cruz et al. (2017)

The results of the study by Cruz et al. (2017). suggest that youth continue to join gangs because of troubled families, lack of education, and employment opportunities. Gang organizations take advantage of these shortcomings to recruit and maintain an army that is key in controlling new territory and in the war against enemies, including the police and security forces.

El Salvador and Honduras are among the Latin American countries with the highest incidence of young people who neither study nor work. It is estimated that 48% and 35% of young people who enter school do not finish it in Honduras, and El Salvador, respectively, and a large part of these young people do not manage to enter the labor market. Among young people between the ages of 15 and 24, more than 20% neither study nor work in both countries (Castro et al., 2019).

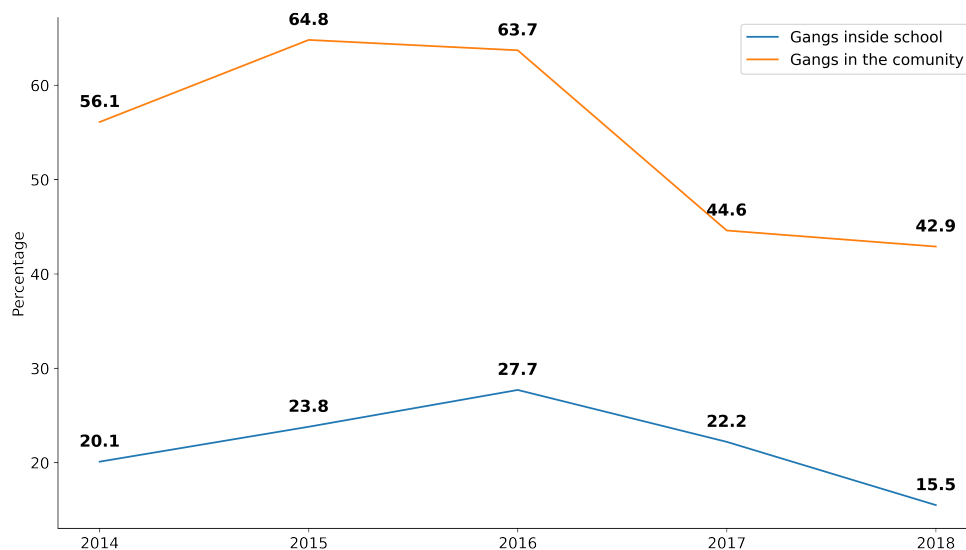
Gang members can drop out of school before or after joining the gang. On average, young people joined a gang 5.9 years after dropping out of school, suggesting a gradual and lengthy detachment from a critical institution of socialization (the school). Furthermore, more than half of them (54.4%) joined the gang within the first four years after dropping out of school (Cruz et al., 2017).

### 1.3 Gangs and Schools

In El Salvador, the territorial control exercised by gang groups reaches many schools, mainly in poor communities. In 2018, 43% of schools were affected by gangs and more than 15% by these criminal groups in the school community, according to surveys answered by school directors. In the case of Honduras, there are no official sources that indicate the level of gang involvement in the school community. However, in 2016, about

twenty-five educational centers closed due to high levels of violence, most of them located in the Central District municipality.

Figure 2. Schools with gang presence in El Salvador (%)



Source: Elaboration from Obsevatorios of Ministry of Education of El Salvador

Data from the Ministry of Education of El Salvador indicate that a good part of the dropout rate is due to crime between 5 and 14% depending on the year. On the other hand, youth in gang contexts tend to perform poorly in school than their peers. Students in a gang context tend to miss classes 25% more than the average and tend to be suspended twice more than the average (see 2). These indicators predict low school performance of young people and increase the probability of dropping out.

There is also evidence that the presence of gangs has an impact on measured school performance. According to data from the Ministry of Education, the average PAES score for 2018 in schools (including public and private) with the presence of gangs was 5.38 versus 6.02 in schools in gang-free contexts (base results 10). This difference is statistically significant even when compared between public schools (5.28 in gang settings versus 5.65 in gang-free settings). Currently, the gap between schools with and without gang presence is equivalent to 40% of the gap between public-private schools.

On the other hand, students in gang contexts tend to have more recurrence of absences and poor performance. They are also more likely to be victims of crimes. The probability that students are victims of robbery increases by a third compared to the average (the equivalent of 6 percentage points); they tend to suffer more from physical attacks (6 percentage points), and the probability of suffering from threats, deprivation of liberty and sexual abuse almost doubled in gang contexts (see 3).

## 2 Data

A self-administered test in the school is used, which aims to measure three components: Resilience in young people, socio-emotional skills, and the skills that young people see in their peers.

To measure Resilience, the CYRM-28 test (Child and Youth Resilience Measurement) was used, which was developed by Ungar and Liebenberg (2011). This scale measures a set of personal skills, family and contextual

resources that allow young people to overcome adversity.

CYRM-28 is made up of three subscales that reflect the main resilience categories. The responses were scaled from 1 to 3 (1 = "not at all", 2 = "little" and 3 = "a lot"). In Annex B1 we include the questions administered for this test.

The *first subscale* is called "individual factor" which includes personal skills (5 items), peer support (2 items) and social skills (4 items). The *second subscale* explored "family support", as reflected in physical care (2 items) and psychological care (5 items). The *third subscale* comprised "contextual components" that facilitate a sense of belonging in youth, components related to spirituality (3 items), culture (4 items) and education (2 items). From the cultural factors, an item related to ethnicity was excluded.

Higher scores represent better results. However, there are no categories of good or bad scores within the survey methodology. The test recommends making comparisons between groups within the young people surveyed.

In addition to the CYRM test, the students responded individually to a series of questions related to socio-emotional skills such as motivation, locus of control, solidarity and empathy, and the relationship between their teachers. The questions were self-administered, and the items were on a Likert scale.

Finally, the young people answered a set of questions in which they valued their peers in terms of attitudinal, interpersonal relationships, responsibility, and commitment. The questions were also self-administered and on a Likert scale. For this document, the test results were standardized.

## 2.1 Groups analyzed

The sample size was defined considering 95% confidence and a sampling error not greater than  $\pm 10$ . A probability sampling was carried out, and the following criteria were established for the sample: (1) representativeness at the departmental level and (2) representativeness of the student population enrolled in each educational center at the secondary level.

The total sample analyzed is 4,149 young people, 57% in El Salvador and 43% in Honduras. The students belong to 150 educational institutions of the different departments of the countries.

In this study, three groups of students are compared: youth gang members, youth in gang contexts (non-gang members), and youth in gang-free contexts. To carry out this classification, the following characteristics were considered:

*Gang members (GM)*: Students who indicated that they were members of a gang.

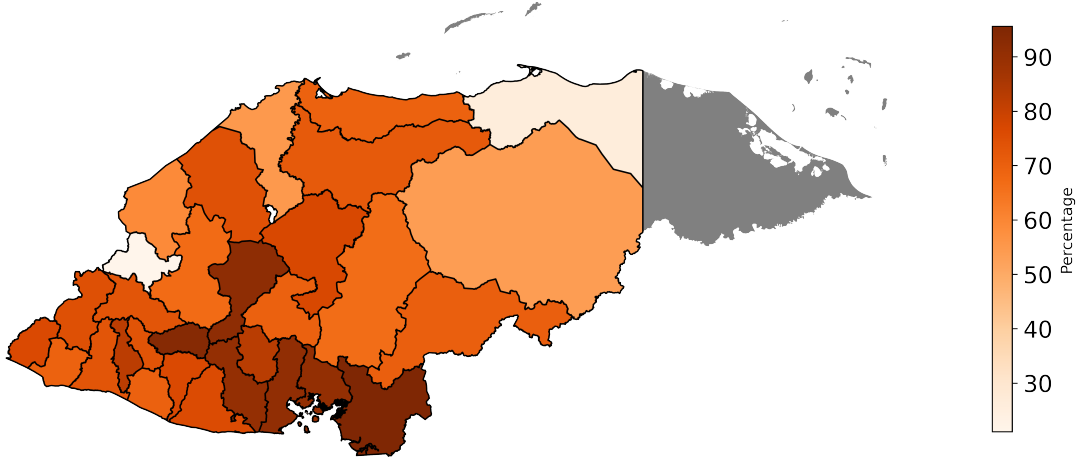
*Students in Gang Context (SGC)*: Students who did not report being a member of a gang, but who; (1) have any contact with: family, friends, or colleagues who belong or used to belong to a gang; (2) have a favorable view of the gang structure because it provides protection or other reasons not mentioned or that they are likely to join a gang; (3) a student at their school reports belonging to a gang.

*Students in a gang-free context (SGFC)*: Students who did not report any of the above characteristics.

When disaggregated by department, a higher percentage of students are found in a gang context in the region's southwest (east of El Salvador and south of Honduras). The departments in El Salvador with the highest percentage were: Cabañas, La Unión, San Miguel and Morazán (94%, 91%, 91% and 82% respectively); while in Honduras: Choluteca, Intibuca, Valle, Comayagua (96%, 92%, 91% and 77% respectively). These data coincide in magnitude with the Observatories of the Ministry of Education of El Salvador compared

to secondary schools, however, the most affected departments differ. This may be due to the methodology (the Director of the schools answers the Observatory survey) and that our survey considers whether students have contacts with gang members outside the school community.

Figure 3. Percentage of students in a gang context (%)



On the other hand, of the total educational centers in El Salvador and Honduras where the survey was conducted, at least 69% and 52% respectively have a student who claims to be a gang member. In the case of El Salvador, the results seem to be higher when compared to the Observatories that report that at the national level, 36% have gangs in secondary school. However, only 6% and 4% of the surveyed students affirm that they belong to these groups in El Salvador and Honduras, respectively.

### 3 Model

The following model was used to analyze each of the questions:

$$Y_i = \beta_1 D_{ip} + \beta_2 D_{iap} + X_i + \eta + \epsilon_i \quad (1)$$

Where  $Y_i$  are the answers to each question of the student  $i$  after being standardized,  $D_{ip}$  is a dummy variable that takes the value of 1 if the students report being a gang member,  $D_{iap}$  takes the value of 1 if the students live in a gang context,  $X_i$  is a vector of control variables for age and sex and  $\epsilon$  is variable of fixed effect at the municipality level. The errors of the model were clustered at the school level. The coefficients of interest and reported in the results section are  $\beta_1$  and  $\beta_2$ , which capture the effect of being gang members and living in a context with gangs.

### 4 Results

This section analyzes the results of the surveys grouping by student gang members, students in gang contexts (not gang members) and students in gang-free contexts. The results have been normalized and are presented in comparison to the non-gang context. The differences represent standard deviations with respect to the average obtained by students in the gang-free context (SGFC).

## 4.1 Resilience in schools

Before analyzing the data, we will define Resilience as the ability of people to maintain their well-being through psychological, social, cultural, and physical resources in their individual or collective capacity (Ungar, 2008). The definition is not only the ability to solve or navigate in adverse environments but also the capacity of the environment to provide these resources (context), implying that Resilience depends on the family, school, community, and government (Ungar and Liebenberg, 2013).

Resilience levels significantly impact education (Taylor and Wang, 2012; Wang and Gordon, 2012). Well, they allow learning inside or outside of school to be successful. The concept of Resilience suggests that education is also a sociocultural factor that can be improved. This implies identifying and promoting the factors or mechanisms observed in the most resilient subjects (López and Tedesco, 2002).

### 4.1.1 Students in Gang Contexts

Significant differences are identified in the measure of Resilience in students in a gang and non-gang contexts. Differences include individual factors, relationship with the students' main caregiver, and the student's context (Figure 4).

The main difference between young people in gang contexts (SGC) is reflected in their relationship with their main caregiver (generally mother or father). They report about 0.17 standard deviations less in this indicator than students in free-gang contexts (SGFC), specifically in the psychological care that young people receive from their caregivers at home. Students in these vulnerable contexts report that their caregivers know little about them, that they usually do not express their feelings with their caregivers, do not feel the support of those responsible in difficult situations, do not feel safe with them and do not enjoy the time they spend with their relatives when compared to SGFC. On the physical care side, students in gang contexts also report lower levels, but they are not significant.

Regarding the resilience factors related to the community context, students in a gang context present a lower indicator (0.15 lower deviations with respect to SGFC), mainly in educational factors. Young people in gang contexts place less value on education in their life and do not feel part of their educational center. These results coincide with other responses analyzed in this study when asked about their relationship with teachers or a climate of respect and dialogue among their classmates.

Regarding the cultural context, young people report that they are not treated well in the community, they do not enjoy the cultural traditions in their community, and they feel less proud of being Salvadorans. This group presents 0.16 standard deviations less than the SGFC. One possible explanation could be the negative stigma that society has on young people, mainly young men directly associated with crime. Young people report feeling discriminated against more than 30% of the time (United Nations Development Programme, 2018). On the other hand, in the spiritual context, no significant difference was found in this group.

In individual factors, young people report feeling less skilled (0.14 deviations with respect to SGFC). They do not believe they are capable of solving problems without causing harm to themselves or others, and they consider that they are not developing the skills that will be useful to them in future life. Young people in gang contexts report fewer social skills (0.07 deviations less than SGFC, which is significant when an alpha of 10% is considered). Young people report not knowing whom to ask for help in case of a problem. Young people in gang contexts do not report significant differences in support from their peers.



### 4.1.2 Gang Members

As students in a gang context, gang members report lower levels of Resilience than students in a non-gang context in all factors: individual, their relationship with their main caregiver, and context (see figure 4) and also show lower levels of Resilience than their non-gang members; however these differences are not significant. The results coincide with similar studies in other contexts, Lenzi et al. (2019) found that in California, students with higher emotional competencies were less likely to belong to gangs.

The main difference between gang members and youth in a gang-free context is their relationship with their caregivers (0.40 deviations less than SGFC), mainly in psychological aspects. Gang members indicate feeling less safe with their caregivers significantly lower than students in non-gang context and lower than their non-gang peers (the latter is not significant). In addition, like their peers, gang members report talking less with their primary caregiver, feel less supported by family members in difficult times, and enjoy less spending time with their family compared to SGFC. In physical care, gang members also report more frequently that their parents do not take care of them closely and do not have enough to eat at home compared to youth in non-gang settings (this difference is statistically significant at 10%).

These results coincide with those of Cruz et al. (2017) that show that, of the total number of gang members they interviewed, approximately half left their home and decided to join a gang mainly due to abuse at home, abandonment by family members, or other problems at home. A poor relationship with caregivers and family members enhances the idea that “crime is a family problem” (Farrington et al., 1996; Glueck and Glueck, 1950; Moffitt, 1990). Family history (in general) and paternal crime (in particular) are some of the most significant predictors of crime in young people (Chioda, 2017).

In individual factors, gang members also report a lower indicator (0.34 deviations less than SGFCs), primarily social skills. This difference is even significant with their peers within the school. Unlike their peers, gang members report significant differences in knowing how to behave in different social situations and mention, on average, that they have problems acting responsibly.

Gang members present a lower level of contextual resources (0.28 deviations less than SGFC) that allow them to overcome adversity compared to youth in non-gang contexts. For example, gang members consider to a lesser extent that they feel well treated by the community and feel proud of being Salvadorans. They also have a very low value for education. On average, they report that education is less important compared to what is reported by students in non-gang contexts.

Gang members do not present a significant difference in factors related to their peers. Specifically, gang members feel supported by their friends in the same way as other students.

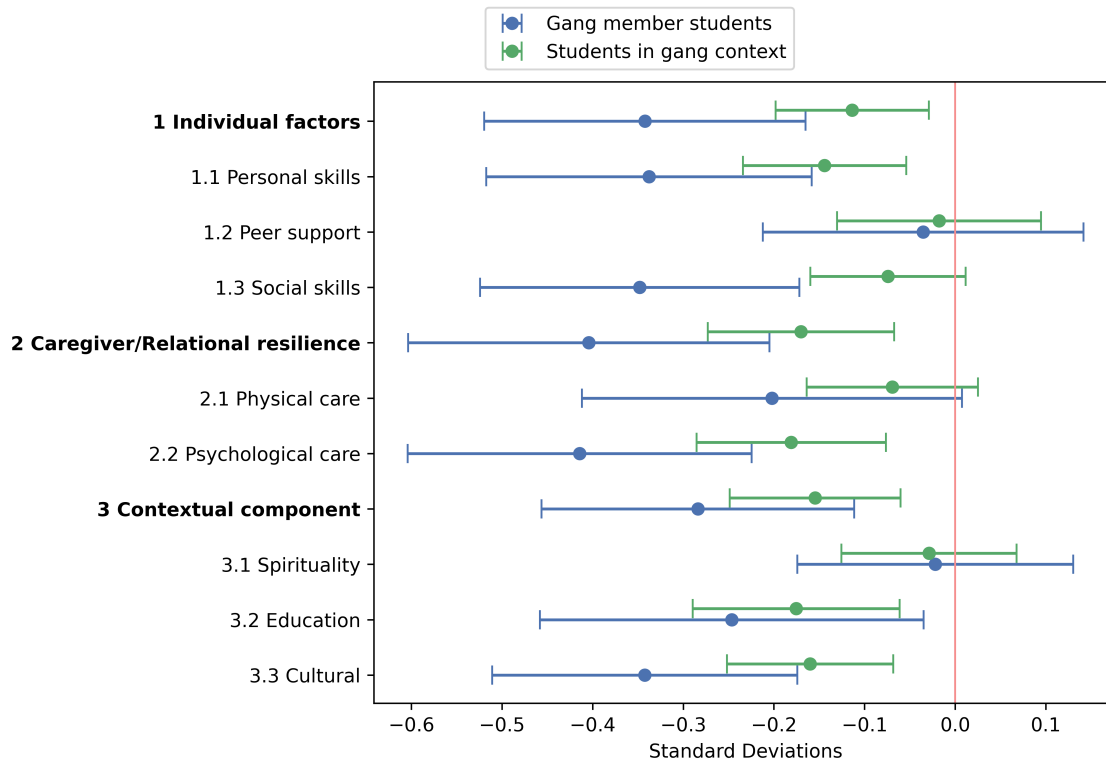
According to Cruz et al. (2017), from the perspective of gang members and former members, the main reasons people continue to join gangs still revolve around the enthusiasm of hanging out with their peers and generating respect for social and community recognition. In addition, gang organizations provide them with assets not provided by their own families and the community, such as friendship, protection, financial resources, and self-confidence.

The company’s quality can harm the lives of these young people because contact networks can influence antisocial behaviors such as crime (Chioda, 2017). It has also been identified that risky and antisocial behaviors tend to group young people with similar characteristics (Biglan, 2004).

On the other hand, gang members do not report significant differences in spiritual factors related to Re-

silience. Youth belonging to gangs participate in religious activities to the same extent as a youth in non-gang contexts. A study carried out by Offutt (2020) shows that in El Salvador, gangs and evangelical groups have many interactions with each other in poor neighborhoods, mainly, gang members and evangelicals share family networks, both groups are the ones who govern and lead the communities, gangs infiltrate religious groups and adopt their symbols. Other studies indicate that joining evangelical groups is one of the main exit routes for gang groups (Cruz and Rosen, 2020).

Figure 4. Affective relationship between student and teacher, standard deviations with respect to SGFC



The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

## 4.2 Affective relationship between student and teacher

Figure 5 describes the comparative results between groups on the affective relationship that students maintain with their teachers. The relationship shows the degree of openness that teachers have with their students and the level of satisfaction that students feel with their teachers.

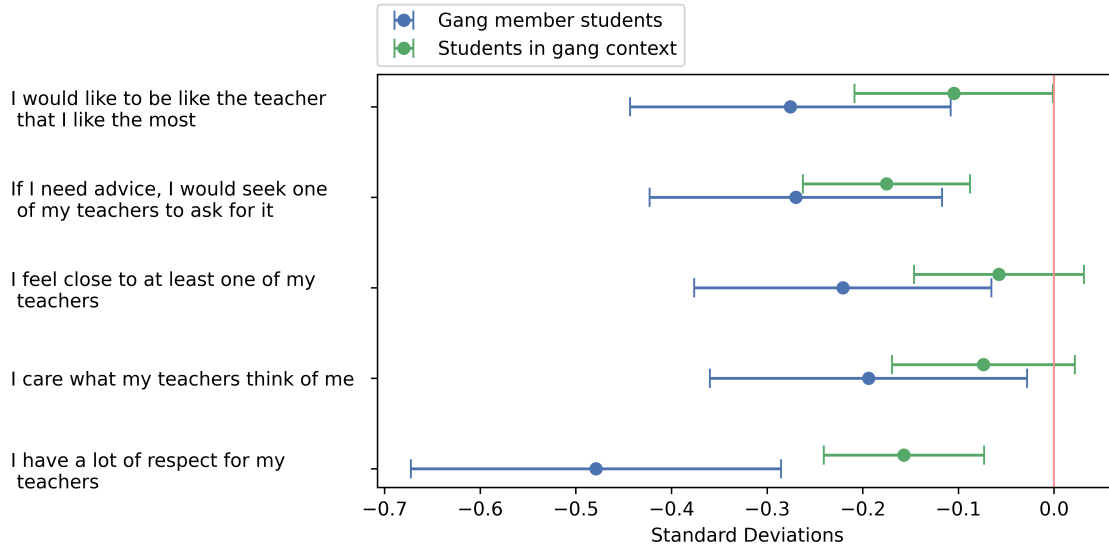
A higher level of relationship with the teacher allows a higher level of learning due to the quality of the interactions generated between the teacher and the student. Similarly, there is an important relationship between the school's social climate and the development of students' self-esteem, identity, and the link with teachers (Marchant Orrego, Milicic Müller and Alamos Valenzuela, 2015).

In gang contexts, students have a lower degree of respect for their teachers; however, only in two items were their responses significantly lower with respect to the SGFC. Students would not seek advice from

their teachers, and neither does he have much respect for them (0.18 and 0.16 standard deviations less). Reflecting that teacher plays a less relevant role in youth in gang contexts. This difference in the teacher-student relationship could affect the quality of educational learning within the classroom.

Students who consider themselves gang members show worse relationships with their teachers in all items with respect to SGFC (when an alpha of 10% is considered). Students belonging to gangs do not report statistical differences with respect to their classmates in the classroom, except that they report less respect for their teachers (statistical difference at 10%). This difference is three times greater than that reported by their classmates in the classroom with respect to SGFC (0.48 standard deviations vs. 0.16).

Figure 5. Affective relationship between student and teacher, standard deviations with respect to SGFC



The students were asked to what extent do the following statements describe your situation at the institute? And the possible answers were: 1 = Totally disagree, 2 = Disagree, 3 = Agree and 4 = Totally agree. The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

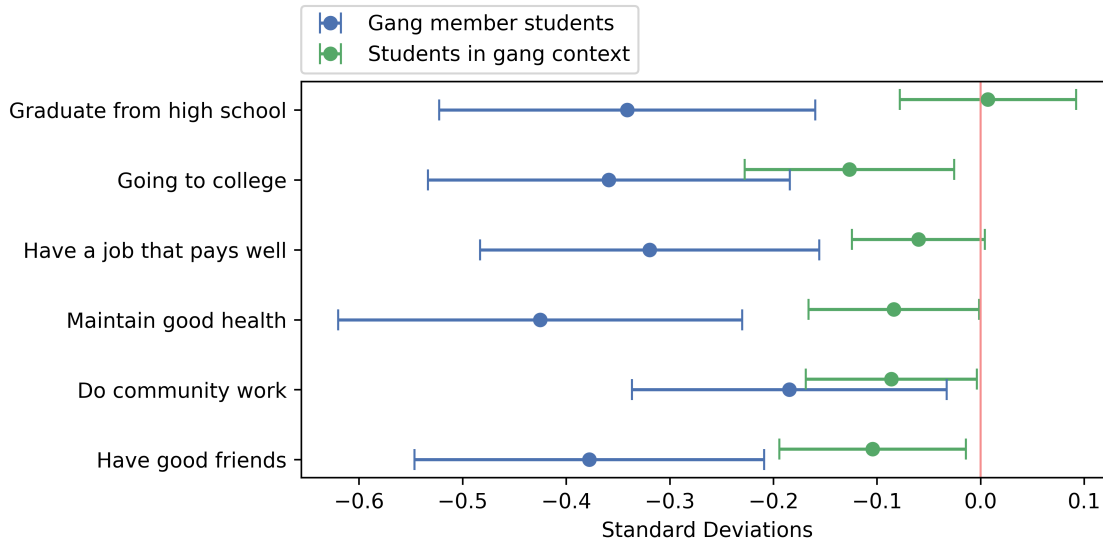
### 4.3 Expectations for the future

The survey carried out investigates the expectations of the students for the future. Youth in gang and gang contexts have a much more pessimistic view than youth in non-gang contexts. Having a negative vision of the future could have consequences in how young people act daily, mainly in motivation, performance in school, and incidence of antisocial activities.

Youth in gang contexts report the same expectations of graduating from high school. However, they do report feeling less confident about going to college than youth in non-gang contexts. Young people in gang contexts report less interest in maintaining good health, doing community work, and having good friends (these items are significant with an alpha of 10%). On the other hand, gang members have even more negative expectations for the future for all items. All these differences are statistically significant with respect to SGFCs. They also show differences with their peers in the expectations of graduating from high school, having a good job, and having good friends (when an alpha of 10% is considered).

This pessimistic vision of the future could explain the poor performance of gang members in school. A young person who considers graduating from high school unimportant will resort to being absent from class, repeating a grade, being suspended, and being expelled more often than his peers.

Figure 6. Expectations for the future, standard deviations with respect to SGFC



The students were asked: How important is it for you that in the future ...? And the possible answers were: 1 = Very important, 2 = Important, 3 = Somewhat important and 4 = Not important. The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

#### 4.4 Locus of Control

In the study, questions were asked to evaluate the students' locus of control, that is, the degree that young people perceive that their effort determines the success or not in their lives.

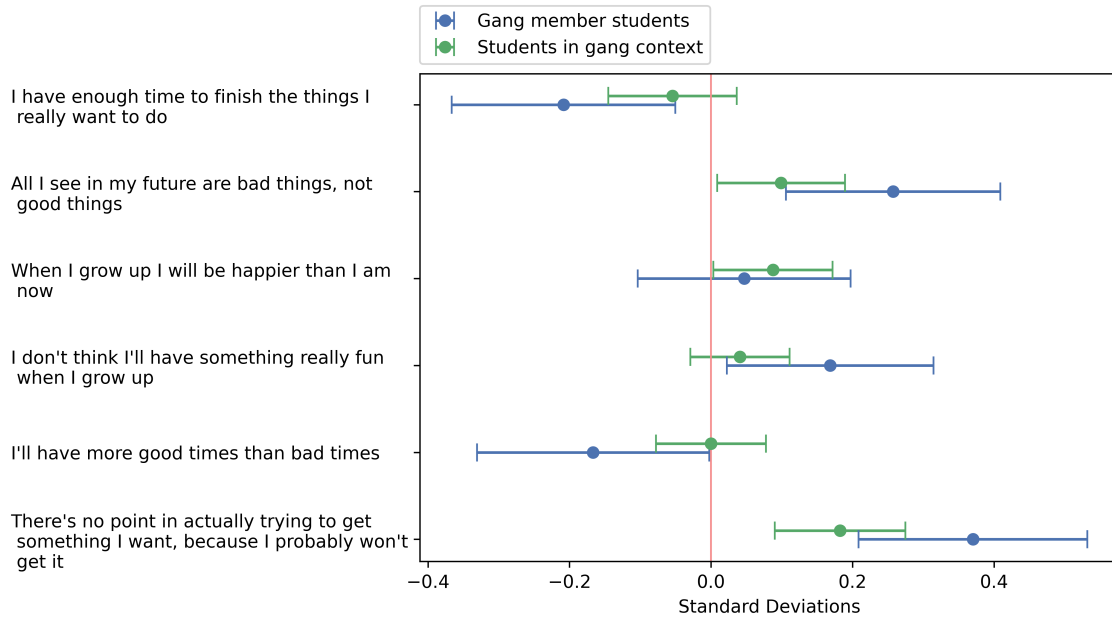
Students and gang contexts report a lower degree of internal locus of control than youth in non-gang contexts. Students consider that external factors are what determine their life. The group that reports lower internal locus of control levels are gang members in all items with respect to SGFC. It is especially noted that gang members do not believe that their effort makes a difference in the future of their lives, they believe that the future will be bad, and that they do not have enough time to carry out the activities they want compared to students in non-gang contexts, differences are statistically significant (Figure 7). Students in the same context, but not gang members, show differences in the items about their vision of the future and that their effort does not determine what they will obtain in life (with alpha at 10%).

The literature has shown the importance of students having a growth mindset to improve school performance and close social gaps caused by stereotypes and low self-esteem (Outes et al., 2017; Good, Aronson and Inzlicht, 2003; Aronson, Fried and Good, 2002).

Social programs that do not consider these factors may not have a positive impact. For example, programs whose beneficiaries are youth who have voluntarily enrolled in the program may not be benefiting the most

vulnerable youth. This is because young people who voluntarily want to participate in these programs may have a higher internal locus of control. Those who give up participating consider that their actions can change very little the success in their life, as it could happen in gang member students.

Figure 7. Locus of control, standard deviations with respect to SGFC



Students were asked to indicate how much they agree with the following statements. And the possible answers were: 1 = Totally disagree, 2 = Disagree, 3 = Agree and 4 = Totally agree. The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

#### 4.5 Empathy and solidarity

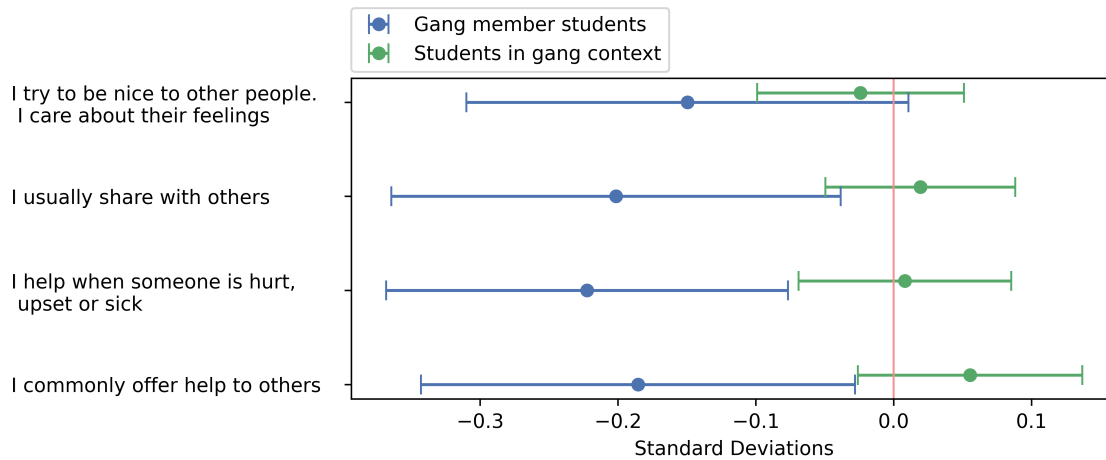
One of the interesting findings of this study is that students in the context of gangs that do not belong to these criminal groups do not show statistical differences in the empathy and solidarity items, contrary to their fellow gang members. On the contrary, students belonging to gangs reported lower levels of empathy and solidarity with the people in their environment.

Gang members less frequently report helping or offering help to their peers and sharing with others (0.22, 0.20, and 0.18 standard deviations less than SGFC). It is worth mentioning that the differences in helping and offering help are significant with their peers in the same context (with alpha at 10%). Social skills could make a difference between those who become gang members and those young people who do not, despite being in very similar conditions and communities. Evidence in other contexts such as California suggests that levels of empathy could be a factor that discourages entry into these gang groups (Lenzi et al., 2019).

Furthermore, a low level of social skills increases the likelihood of committing crimes and predicts other psychiatric problems in future stages of young people's lives (Lösel and Bender, 2012). Although it would be necessary to develop other tools to measure students' level of social skills, it is possible to identify that gang members are at the bottom of the student distribution regarding solidarity and empathy.

On the other hand, these antisocial behaviors develop from childhood, last until youth, and are easy to identify early. Supporting children and young people with behavioral problems and low levels of social skills would reduce crime and reduce the cost of less effective programs during the adulthood of the perpetrators (Cohen and Piquero, 2009). Moreover, social skills training in childhood and adolescence is relatively easy to implement in schools with trained teachers. They generally reach most of the population at risk of committing crimes, so these results could have significant public policy implications.

Figure 8. Empathy and solidarity, standard deviations with respect to SGFC



Students were asked to indicate how much they agree with the following statements. And the possible answers were: 1 = Totally disagree, 2 = Disagree, 3 = Agree and 4 = Totally agree. The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

## 4.6 What do students think of their classmates?

### 4.6.1 Students in Gang Contexts

In the study, students were asked how they value some skills from their peers. Youth in gang contexts have a very negative view of their peers compared to the view that students in gang-free contexts have of their peers at school.

It is worth mentioning that self-reported questionnaires may be biased due to respondents' reference when answering (García Cabrero, 2018; Kautz et al., 2014). Possibly the results reflect the degree of difference that the student considers of her reference with respect to their peers. This could be a weakness of the method and should be considered when understanding the results. However, it is possible to identify statistical differences when comparing between groups.

Students in a gang context have a negative view of their peers at school, especially in interpersonal relationships (Figure 9). Students consider a bad climate of respect and openness in the classroom (0.20 deviations less) and a bad student-teacher relationship (0.15 deviations less), which would confirm the personal responses of their classmates.

In the other areas, students in gang contexts believe that the norms of the classroom are not met (0.22 less

deviations), they believe that there is no self-control or emotional control (0.10 less deviations), collaboration and cooperation in the behavior of their peers ( 0.09 less deviations) and class participation by their classmates (0.11 less deviations). These last three are significant at 10%.

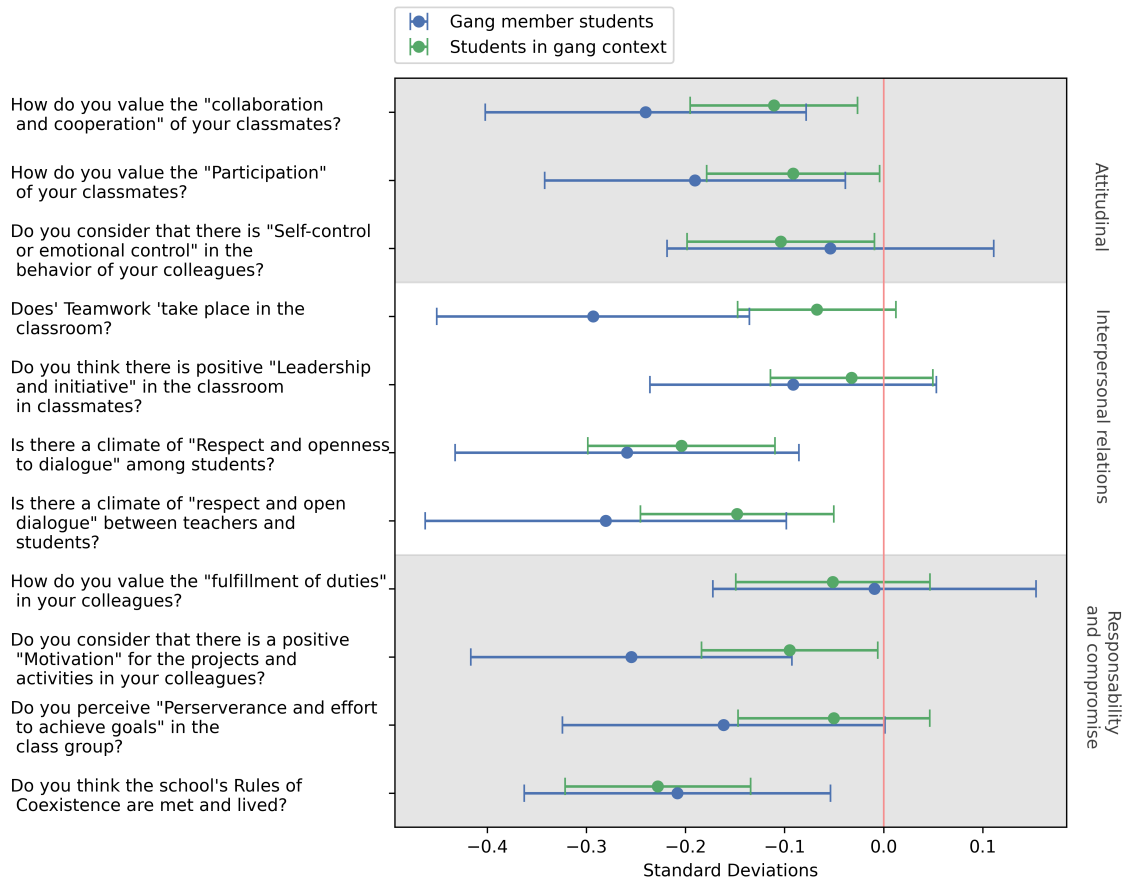
#### **4.7 Gang Members**

Students who consider themselves gang members have a more negative view of their peers regarding SGFC. This gap is more prominent in the items related to the field of interpersonal relationships that ask about respect between students (0.26 less deviations), respect between student-teachers (0.28 less deviations), and teamwork (0.29 less deviations).

In the other areas, student gang members report less collaboration and cooperation (0.24 less deviations), less participation (0.19 less deviations), less motivation (0.25 less deviations) and less compliance with the rules of coexistence ( 0.21 less deviations).

Low valuation in these aspects could mean low social interaction between gang members and their peers, making it difficult for gang members to find positive friends at school; this could force students to disaggregate between gang members and non-gang members. In other contexts, Dishion, Nelson and Yasui (2005) point out that peer rejection is a predictor of gang membership.

Figure 9. Students' assessment of their peers, standard deviations with respect to SGFC



Students were asked to answer the following questions on a scale of 1 to 5 (1 = Not at all, 5 = A lot). The results were normalized and the differences in standard deviations with respect to the group of students in gang-free contexts (SGFC) are presented. These differences are robust when controlling for municipality, sex and age of the students and the errors are clustered at the educational center level.

## 5 Conclusions and recommendations

Crime is a phenomenon that considerably affects Salvadoran youth, preventing the school from being a refuge for young people. Students in gang contexts face higher levels of violence than their peers, have more unsatisfactory school performance, lower levels of Resilience, and fewer social-emotional skills.

*1. Identifying family problems could help young people receive relevant help before they get involved in criminal structures*

The factors that present the most remarkable difference as a resource of Resilience in young people in gang and gang contexts are their relationship with their main caregivers. The difference between gang members and young people in non-gang contexts is higher. This difference is due to the little psychological affection that young people have for those responsible. This reinforces the findings that one of the main causes of gang membership is family problems (Cruz et al., 2017) and that family problems increase the likelihood of committing crimes ((Farrington et al., 1996; Glueck and Glueck, 1950; Moffitt, 1990).

*2. The school should identify and address through protocols antisocial behaviors that develop from childhood.*



*These behaviors are strongly associated with belonging to gang structures in adulthood*

Young people who belong to gangs report lower social skills in the indicator of Resilience, which is statistically significant compared to students in non-gang environments. Unlike their peers, gang members report significant differences in knowing how to behave in different social situations, which means higher levels of anxiety, aggressiveness, and lower levels of self-control in gang members in different social situations. It is worth mentioning that young people in gang contexts, but not gang members, do not report statistical differences as do gang member students. Social skills could make a difference between those who become gang members and those young people who do not, despite being in very similar conditions and communities.

On the other hand, these antisocial behaviors develop from childhood, last until youth, and are easy to identify early. Supporting children and young people with behavioral problems and low levels of social skills would reduce crime and reduce the cost of less effective programs during the adulthood of the perpetrators (Cohen and Piquero, 2009). Social skills training in childhood and adolescence is possible to implement in schools with trained teachers. They also have the advantage of reaching most of the population at risk of committing crimes (before they commit them).

*3. The image of young people in high-risk communities should be positively revalued*

Students in a gang context and gang students present a lower indicator of the levels of Resilience related to their context. Young people report that they are not treated well in the community and do not enjoy the cultural traditions in their community. Young people in gang contexts, but not gang members, participate less in religious activities and believe it is not essential to serve the community compared to youth in gang-free contexts.

*4. The school must promote personal development in its students, and teachers must have protocols and resources for dealing with environments with high levels of violence*

Young people in gang and gang contexts place less value on education in their life and do not feel part of their educational center when compared to their peers in another context. Gang members also have lower expectations for the future and report less importance for graduating and having good salaries.

Youth in a gang and gang contexts report significantly worse relationships with the teacher. Thus, indicating that teacher plays a less relevant role in youth in gang contexts. This difference in the teacher-student relationship could affect the quality of educational learning within the classroom and develop a healthy social climate in the classroom.

*5. Programs that voluntarily try to bring in at-risk youth may not work due to the low locus of control these youth have*

Students in gang environments and gang students present a lower internal locus of control when compared to their peers in other contexts. In other words, these young people believe that their actions do not determine success in their lives; This factor could explain gaps in school performance due to social stereotypes (Aronson, Fried and Good, 2002). The community could create these stereotypes that designate young people as criminals (United Nations Development Programme, 2018). In addition, it affects the success of programs that attempt to attract at-risk youth voluntarily; because young people should first feel empowered to change their future. In this case, the school could play an essential role due to its universal requirement to enroll the entire population.

*6. The school must create bonds of camaraderie and teamwork among its students and prevent the strengthening of ties between gang groups within the school*

The only resilience factors that gang members did not show statistical differences were those related to their support from their peers and their spirituality. The relationship of peers with aggressiveness problems and risk behaviors could increase the probability of committing crimes in young people, according to Cruz et al. (2017); Chioda (2017); Biglan (2004). Therefore, interpreting this factor as a positive resilience resource could be a mistake because it increases the crime levels of young people in groups involved in gangs or criminal activities. Additionally, low levels of solidarity and empathy could prevent gang members from having stable and positive friendships.

In addition, youth in gang contexts have a negative view of fellow gang members in the classroom, especially on coexistence, openness among students, and self-control. This difference in vision could segregate young people and impede a healthy social environment within the classroom.

A recent study carried out in El Salvador shows that integrating groups of students with different levels of the propensity for violence has positive effects on the behavior of young people and their school grades. These positive effects were observed both in the most and least violent young people. The same study indicates that continuing segregation could have unwanted effects on student misconduct and stress (Dinarte, 2020). There is also evidence that better emotional competencies at the school level are strongly associated with not belonging to gangs (Lenzi et al., 2019).

## 6 Annex

Table 1. Summarize

Country	All			El Salvador			Honduras		
Indicator	count	mean	std	count	mean	std	count	mean	std
Category									
Age	4149.0	16.796	1.598	2346.0	17.163	1.290	1803.0	16.318	1.819
Grade	4149.0	10.526	1.255	2346.0	11.024	1.347	1803.0	9.879	0.723
Female	4149.0	0.518	0.500	2346.0	0.502	0.500	1803.0	0.539	0.499
Gang context	4149.0	0.748	0.434	2346.0	0.782	0.413	1803.0	0.703	0.457
Gang members	4118.0	0.055	0.228	2346.0	0.064	0.244	1772.0	0.044	0.205

Table 2. Academic outcomes

	Absence	Suspension
	(1)	(2)
Gang Context	1.22*	0.12***
	(0.72)	(0.04)
const	5.35***	0.10***
	(0.62)	(0.02)
Observations	4,145	4,147
$R^2$	0.00	0.00
Adjusted $R^2$	0.00	0.00
Residual Std. Error	16.14	1.72
F Statistic	2.84*	6.74***

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

<sup>1</sup> Clustered errors at the school level

Table 3. Probability of being a victim

	Robbery	Physical assaults	Threats with a weapon	Deprivation of liberty	Sexual abuse
	(1)	(2)	(3)	(4)	(5)
Gang Context	0.06*** (0.02)	0.06*** (0.02)	0.05*** (0.01)	0.02*** (0.01)	0.01** (0.01)
const	0.22*** (0.02)	0.10*** (0.01)	0.04*** (0.01)	0.02*** (0.00)	0.02*** (0.00)
Observations	4,132	4,122	4,113	4,115	4,115
$R^2$	0.00	0.00	0.00	0.00	0.00
Adjusted $R^2$	0.00	0.00	0.00	0.00	0.00
Residual Std. Error	0.44	0.36	0.27	0.20	0.16
F Statistic	9.17***	10.15***	20.07***	9.19***	5.69**

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

<sup>1</sup> Clustered errors at the school level

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