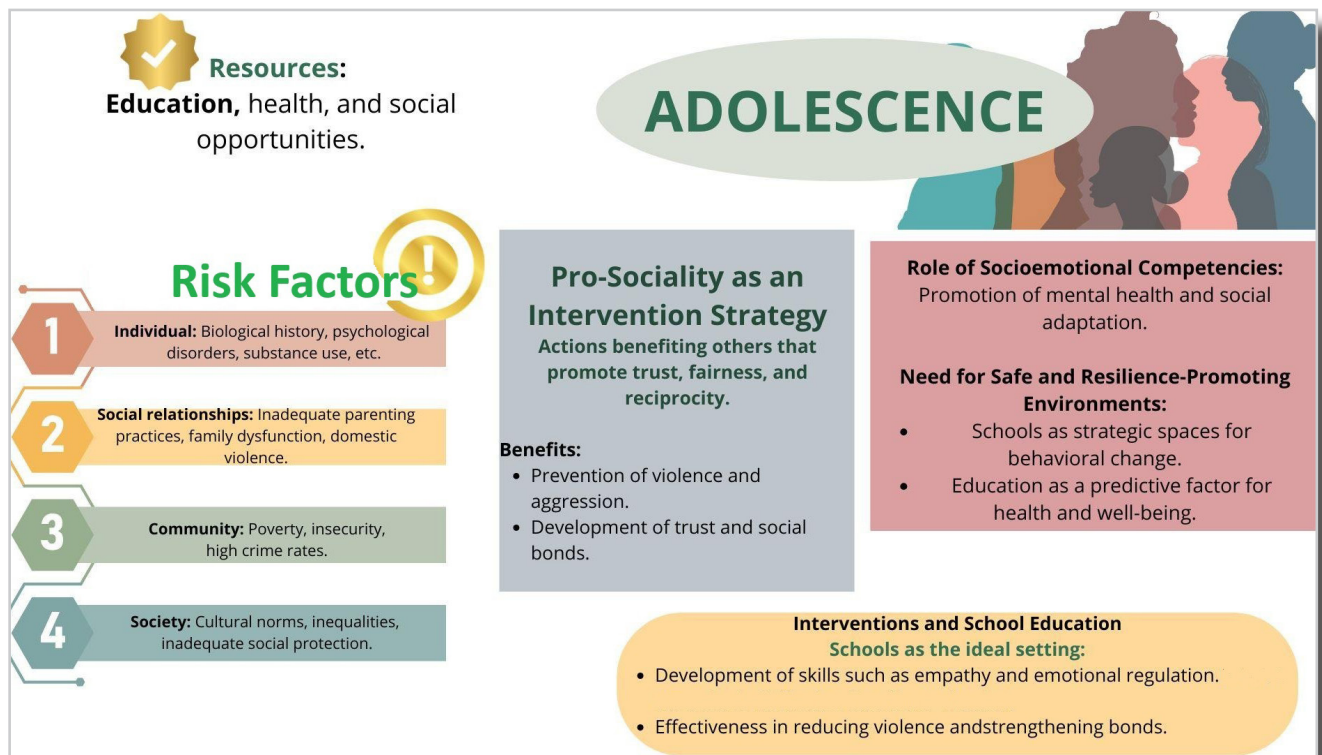# Prosociality in adolescents: an intervention experience

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Graphical Abstract

Abstract

The present study introduces an intervention conducted with adolescent students from municipal public schools. The intervention involved two groups (n = 20; n = 18) of sixth-grade students. The intervention program was based on the "Core Program" developed by LIPA (Applied Prosocial Research Laboratory) at the Autonomous University of Barcelona and was adapted for this application. Prosociality can be defined as a set of voluntary behaviors intended to benefit others without the expectation of external rewards. These behaviors strengthen social bonds and foster fundamental values for the development of healthy interpersonal relationships. Given the current social and economic conditions, adolescents living in urban centers are immersed in a reality marked by violence and antisocial behaviors. The objective was to observe changes in adolescents' behaviors following the intervention, measuring the level of prosociality. Twenty 90-minute sessions were conducted weekly, along with three evaluations to identify the participants' levels of prosociality (baseline, final, and follow-up). The instrument used was the EPA-A (Prosocial Behavior Assessment Scale for Adolescents). An improvement in prosocial behaviors among the adolescents was observed following the intervention, as evidenced by their interactions with peers in the group and with the researcher. In the various dimensions analyzed (Helping, Sharing, Positive Climate, Caring, and Empathy), positive trends were noted when positive and healthy attitudes were encouraged. This indicates that introducing socioemotional interventions in the school environment can lead to both individual and collective changes.

Keywords: Adolescent. Adolescent Behavior. Social Vulnerability.

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INTRODUCTION

Adolescents today have access to various resources that support their development. However, adolescence is a period that amplifies susceptibility to situations of vulnerability. UNICEF[1] establishes that factors increasing conditions of violence are distributed across layers. At the individual level, these include aspects of biological and personal history, such as gender, age, education, income, disability, delayed brain and cognitive development, psychological disorders, harmful alcohol consumption, drug abuse, and a history of aggression or maltreatment. At the level of social relationships, factors include a lack of emotional bonds, inadequate parenting practices, family dysfunction and separation, association with delinquent peers, children witnessing violence against their mother or other caregiver, and early or forced marriages. At the community level, factors involve poverty, high population density, transient populations, low social cohesion, physically unsafe environments, high crime rates, and drug trafficking. Finally, at the societal level, risk factors include legal and social norms that create a climate where violence is encouraged or normalized. They also encompass social, educational, economic, and health policies that perpetuate economic, social, ethnic-racial, or gender inequalities; absent or inadequate social protection; social fragility caused by conflicts, post-conflict situations, or natural disasters; weak governance; and poor law enforcement. These factors have a significantly greater impact on adolescents compared to other population groups in Brazil, leading to negative outcomes.

Morbidity and mortality in this age group have increased, primarily due to violence, suicides, accidents, and diseases, which reflect precarious living conditions and social inequalities. Additionally, as a consequence of violence, research has highlighted impacts such as excessive alcohol and drug consumption, risky sexual behaviors, feelings of loneliness, insomnia, difficulties in relationships, suicide attempts, depressive episodes, anxiety, post-traumatic stress disorder, among other issues[2,3]. Furthermore, adolescents who are victims of violence are more likely to drop out of school, experience higher unemployment rates, and earn lower annual wages[2,4,5].

The development of socioemotional skills is considered one of the most effective strategies for promoting mental health, essential for the adaptation of children and adolescents to social demands. Most adolescents in urban centers face environments characterized by violence and antisocial behaviors, challenging the principles of the Child and Adolescent Statute[6]. The lack of spaces that promote health and healthy experiences is evident[7], particularly as institutions such as schools, which should foster resilience and prosocial behaviors, are often embedded in high-risk and vulnerable settings. Nonetheless, education remains one of the main predictors of health[8].

Positive and transformative behaviors must be developed throughout life, with adolescence being a particularly favorable period for interventions due to its influence on identity formation[9]. The genesis of prosocial behaviors is linked to processes such as moral reasoning, learning, self-regulation, and family and social influences. Thus, prosocial development models have significant potential for interventions and preventive measures, especially for adolescents in vulnerable situations[10]. Prosocial responses become beneficial between late childhood and early adolescence, establishing a crucial window for interventions and preventive actions[11]. Understanding adolescents' perceptions of their socio-community context is essential to transform health practices[12]. Therefore, discussing the formation of human behavior is vital for promoting contextual changes and implementing new approaches to social relationships, fostering growth and development.

Prosociality, a relevant topic since the 1960s, encompasses biological, motivational, cognitive, and social aspects; parental emotions; and behaviors that benefit others[13,14]. With its non-contingent nature, prosociality promotes trust, equity, and reciprocity[15]. These actions, including sharing and caring, oppose antisocial behaviors and prevent violence and aggression[7,12].

Studies indicate that individual and contextual factors influence prosociality, with traits like empathy and helpfulness being central to a prosocial personality[16]. The school environment is ideal for fostering prosocial behaviors and mental health, according to the World Health Organization (WHO)[17], integrating skills such as empathy and emotional management. School-based interventions have proven effective in reducing violence, improving academic performance, and strengthening social bonds[18].

In light of this, the present study aims to understand the context, challenges, and experiences of school adolescents, utilizing assessment tools and a prosociality program. This intervention offers an effective alternative to antisocial behaviors, promoting health and well-being.

METHODS

This is an intervention study aimed at evaluating a prosociality program for adolescents. Regarding the methodological model, within the perspective of epidemiological studies, this research involves an attempt to modify the determinants of a disease or condition or halt its progression through treatment[19].

The study does not feature a randomized sample; given the complexity of the proposed intervention, participants were invited by the researcher. Comparisons between intervention and non-intervention conditions were conducted using non-equivalent groups or the same participants before and after treatment.

Participants

The study involved 38 sixth-grade students from two municipal public schools in the Vale do Paraíba region, in the interior of the State of São Paulo. The participants included 20 students from one school and 18 from the other, comprising 14 females and 24 males. Sixth grade represents a transitional phase between the first and second stages of elementary education, marked by significant changes in the teaching model, the number of teachers, an increase in the number of subjects offered, and a shift in the way students are treated as they move from childhood to adolescence[20].

The schools selected for this study are located at opposite ends of the city. They were chosen based on a survey of all municipal schools to identify those meeting specific criteria: serving the adolescent age group, offering full-day activities to avoid interference with students' curricular development, and ensuring geographic separation to maintain data consistency and prevent contamination.

Procedures

The research project was defined, a schedule of activities was established, and the proposal was submitted to the Research Ethics Committee for approval. A survey was conducted with the local education department to identify all municipal public schools. The following criteria were verified: a) schools that serve adolescents; b) schools offering full-day activities; c) geographical location; and d) feasibility of implementing the program within the institution's facilities. Subsequently, contact was made with school administrators, and a meeting was scheduled to present the proposal.

The research project was introduced to the institutions, and permission to carry out the study was requested. Both institutions provided acceptance letters to receive the program. A meeting with the students' parents was then organized to present the project and extend an invitation for participation. At this meeting, the Free and Informed Consent Form was provided, and parental or guardian signatures were collected. During the first meeting with the adolescents, the program was presented, and the Assent Form was distributed to initiate the intervention. All enrolled students were invited to participate, and those who chose to participate with prior parental consent were included in the study.

The intervention consisted of 20 group sessions, each lasting 90 minutes. The sessions were organized according to the instructions of the "Core Program", developed by the Laboratory of Applied Prosocial Research (LIPA). This program is based on the UNIPRO Model, which offers a comprehensive and holistic approach to human behavior from a humanistic perspective[16]. The original program comprises 30 sessions, with a recommendation to be implemented throughout the school year alongside a school curriculum subject. However, for research purposes, the program was adapted to 20 sessions conducted over a single academic semester.

Three evaluations were conducted: 1) before the intervention; 2) immediately after the intervention; and 3) six months post-intervention. The evaluation instrument used was the Prosociality Assessment Scale for Adolescents (EAP-A)[21], a questionnaire focused on prosocial behaviors, particularly in the school context, using a five-point Likert scale. Figure 1 outlines the intervention.
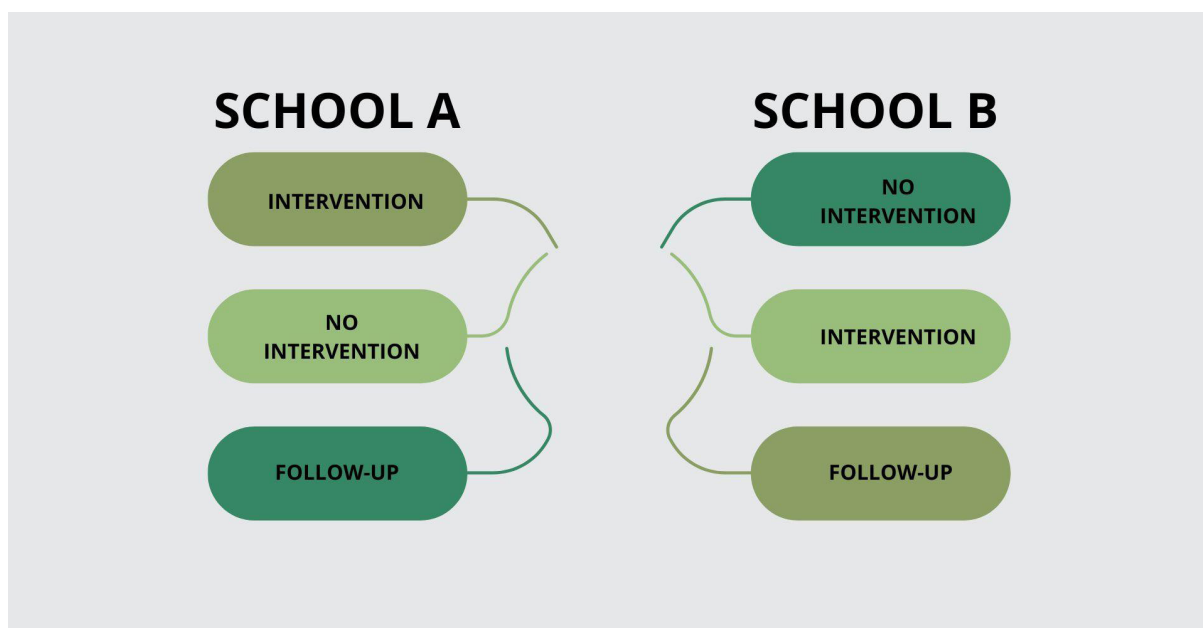
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Figure 1 - Intervention Diagram.

The sessions were led by the researcher and followed the structure outlined below: a) Introduction to the theme to be discussed; b) Execution of the activity according to the model proposed and previously prepared by the researcher; c) Discussion of the activity with the participants' perceptions; d) Conclusion.

The program schedule anticipated one session per week. However, due to students' curricular needs (exams or school events), some sessions were rescheduled to different days than initially proposed. These adjustments did not impact the overall schedule, and weekly frequency was maintained.

The activities were carried out according to the schedule presented in Table 1.

During the intervention, a field diary was maintained, documenting the sessions and the researcher's perceptions of the behaviors and changes observed in the groups throughout the process. This diary serves as a tool for notes, comments, and reflections for the researcher's individual use during the study[22]. In addition to being a reflective tool for the researcher, the diary provides insight into the experiences of the participants; it functions as a device in the investigation[23].

The research was conducted in accordance with ethical principles, submitted for approval by the Research Ethics Committee for Human Studies, and approved with opinion number: 1.782.648.

Table 1 - Activity Schedule.

Session	Factors Addressed	Objective of the Activity
1	Presentation of the Prosocial Program	Justifying the Advantages of Prosocial Behaviors and Motivating Students
2	Dignity and Self-Esteem	Human Rights and Racism
3	Models	Positive Role Models
4	Prosocial Actions	Personal Prosocial Skills and Abilities
5	Skills and Attitudes	Improving Listening and Gratitude
6	Models	Analysis of Real Positive Role Models
7	Prosocial Actions	Improvement of Interpersonal Relationships
8	Dignity and Self-Esteem	Dignity of People with Disabilities
9	Prosocial Actions	Prosocial Actions and Behaviors in Daily Life
10	Positive Valuation	Expressing Compliments and Avoiding Blame
11	Creativity	Prosocial Alternatives in Conflict Resolution
12	Prosocial Actions and Collective Prosociality	Prosocial Actions and Behaviors in the Family Context
13	Creativity	Decision-Making
14	Aggression Resolution	Analysis of Aggression and Self-Control
15	Communication	Modes of Expression
16	Aggression Resolution	Interpersonal Negotiation
17	Empathy	Perspective-Taking
18	Aggression Resolution	Collective Negotiation
19	Empathy	Putting Oneself in Others' Shoes
20	Prosocial Actions / Closing	Celebrating the Completion of Community Actions

RESULTS

The sample characterization can be observed in Table 2, which shows a total of 14 girls (36.84%) and 24 boys (63.16%), with an average age of 11.4 years (standard deviation of 0.487, min. = 10, max. = 12). Regarding ethnicity, the majority of participants self-identified as Non-White (N = 21), representing 55.3% of the total. Concerning socioeconomic class, according to the classification criteria of ABEP (Brazilian Association of Research Companies), 42% of the sample belongs to Class A, 29% to Class B1, and 29% to Class B2.

Table 2 - Sample characterization.

Characteristics	N	%
Gender		
Female	14	36.8%
Male	24	63.2%
Etnia		
White	17	44.7%
Non-White	21	55.3%
Age		
Mean / Standard Deviation	11.4 ± 0.487	
(min-max.)	(10 to 12)	
Socioeconomic Class		
A	16	42%
B1	11	29%
B2	11	29%

Regarding the observations during the sessions, the data from the Field Diary are summarized in the following tables (3, 4, 5, and 6). The main positive and negative behaviors observed in each group during the intervention are presented. Positive behaviors were classified based on the Adolescent Pro-sociality Assessment Scale (EAP-A)[21], divided into 16 categories encompassing all classes of prosocial behaviors[20]. Negative behaviors are presented in 12 categories, grouping those observed behaviors that cannot be classified as positive, as they involve destructive, violent situations or transgressions of rules and limits, both in relation to the researcher and to peers.

Table 3 - Positive Behaviors Observed During Sessions at School A.

Observed Behaviors	MEETINGS																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Organizing and tidying up the environment	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Helping peers with tasks		X			X	X			X	X	X	X	X				X		X	X
Explaining rules and tasks to peers	X		X		X	X	X		X	X	X						X			
Accepting assigned tasks		X	X		X	X	X		X	X	X	X	X		X		X			
Sharing experiences		X		X	X	X	X	X		X	X			X	X	X	X	X	X	X
Sharing materials		X	X		X		X			X		X								X
Working in groups		X	X	X	X		X		X	X	X		X	X	X		X			
Presenting ideas and opinions	X	X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X
Showing interest in peers' feelings		X		X	X		X	X		X		X		X	X	X	X	X	X	X
Encouraging a peer to express themselves	X	X	X	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X
Forgiving a peer					X					X				X	X		X	X		
Supporting peers' ideas	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	
Valuing peers' positive attitudes				X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Allowing everyone to participate in activities		X	X	X	X		X	X		X	X	X	X	X	X	X	X	X	X	X
Promoting friendliness	X		X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X
Mediating conflicts			X	X	X	X				X		X	X	X		X	X	X	X	

Table 4 - Positive Behaviors Observed During Sessions at School B.

Observed Behaviors	MEETINGS																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Organize and clean the environment	X	X		X	X	X	X	X		X	X	X		X	X	X	X	X	X	X
Help peers with tasks		X							X			X	X				X		X	X
Explain rules and tasks to peers	X		X						X		X						X			
Accept assigned tasks					X				X	X					X					
Share experiences		X			X		X		X	X				X	X	X	X	X		
Share materials		X			X					X		X								X
Work in groups		X	X	X	X		X	X	X	X	X		X	X	X		X			
Express ideas and opinions	X	X			X		X	X		X	X	X		X		X	X	X	X	
Show interest in peers' feelings		X					X		X			X			X	X	X			
Encourage a peer to express themselves			X		X		X		X	X				X	X	X			X	X
Forgive a peer									X						X	X		X	X	
Support peers' ideas							X		X	X	X	X		X	X				X	

to be continued...

...continuation - Table 4.

Observed Behaviors	**MEETINGS**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Value peers' positive actions				X			X		X	X	X			X	X		X		X	
Allow everyone to participate in activities	X		X	X	X				X		X	X	X	X	X	X	X	X	X	
Foster friendliness	X		X		X	X				X	X	X		X		X		X		X
Mediate conflicts			X					X		X	X	X	X		X	X	X	X		

Table 5 - Negative behaviors observed at School A.

Observed Behaviors	**MEETINGS**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Manifest disinterest			X							X			X	X						
Be unhelpful with peers				X	X			X				X			X	X				X
Expressly refuse to help a peer				X	X			X		X		X			X	X		X	X	
Not speak during a discussion			X			X	X	X				X	X		X		X			X
Express hostility towards peers				X					X				X							
Show aggressive reaction				X					X				X						X	
Display prejudiced behavior		X				X														X
Ignore peers' opinions						X			X						X					
Provoke disagreements							X		X											
Use offensive language/ vulgar words						X			X						X					
Disturb a peer (specific)						X			X			X				X				
Cause a disturbance/ disrupt the activities						X			X						X	X				

Table 6 - Negative behaviors observed at School B.

Observed Behaviors	**MEETINGS**																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Manifest disinterest	X		X	X		X	X	X	X				X	X	X	X	X		X	
Be unhelpful with peers		X	X				X				X	X	X				X		X	X
Expressly refuse to help a peer		X	X			X	X				X	X	X		X	X			X	X
Not speak during a discussion		X	X		X		X		X	X			X		X		X	X		
Express hostility towards peers			X				X		X			X								X
Show aggressive reaction			X			X	X					X	X			X				
Display prejudiced behavior			X		X				X				X			X	X			X
Ignore peers' opinions			X		X		X		X		X	X	X				X			
Provoke disagreements			X			X		X			X						X			
Use offensive language/ vulgar words	X		X	X		X		X			X		X		X	X	X			X
Disturb a peer (specific)			X				X		X		X	X	X				X			
Cause a disturbance/ disrupt the activities			X				X				X				X	X				X

The observations indicate a difference in behavior patterns between School A and School B; it is noteworthy that in School A, despite offering activities during the full-time period, the administration instructed that the intervention should be conducted during regular class hours (specifically the science class) and in the first period right after the students arrived. In contrast, in School B, the intervention took place right after the morning break, when extracurricular activities were offered as part of the full-time education.

School A has a large physical structure, and all students (those attending full-time and those attending only the regular period) share the same space throughout the day; in School B, the physical space is limited, and the quality of the structure appears to be inferior. Moreover, the space where the sessions took place is not the same as where the regular classes are held. It is a type of annex used for full-time activities, so students have to move from one building to another at each period change. Regarding the physical space designated for the sessions, School A allocated a room with chairs and video equipment; in School B, the sessions were held in different environments each week, and the video equipment was transported when needed.

The adolescents who made up each of the groups came from different classes at school; therefore, they originally belonged to distinct groups and were brought together to participate in the intervention groups. Regarding this aspect, it was possible to observe the formation of bonds, conflicts, and adjustments arising from the need for interaction, evoking various reactions ranging from positive affections to aggressive expressions. Thus, it can be observed that the pre-established peer groups remained united and, over time, were able to either incorporate or repel different members.

Some particular points stood out during the observations; in School A, it was observed that one of the participants (male) was frequently harassed by his peers for various reasons and in different situations, with mixed behaviors and feelings manifesting. These included both positive affections expressed through smiles and pleasant comments, as well as aggressive expressions (both verbal and even physical). However, the negative manifestations were not taken as offensive, so they dissolved within the context, and the group's atmosphere was not altered. The peers showed great affection

and consideration for this specific participant.

Still at School A, two of the participants (a boy and a girl) were siblings, who belonged to different classes at school. Within the group, the need for distance between them was evident. They avoided working together whenever possible, chose opposite seats in the room, and most notably, expressed hostile behaviors and feelings toward each other, exposing domestic situations and emphasizing each other's negative aspects in clear attempts at devaluation.

Another participant from School A approached the researcher outside the intervention group for help with personal issues. The adolescent reported intense family conflicts, situations of abandonment, and abrupt ruptures in important emotional bonds (maternal and paternal), along with experiences of dysfunctional parental situations. Given her reports, it was possible to understand her expressions and reactions in relation to the topics discussed in the intervention groups, where she was sometimes reserved and cautious, and at other times, she exhibited explosive and aggressive reactions. Understanding the particularity of the case, the school's administration was contacted, and it was suggested that the family be called for an orientation meeting, so that steps could be taken to seek professional help for psychological support for both the adolescent and the close family members.

At School B, two of the participants were also brothers (both male), and they displayed completely opposite characteristics regarding their behaviors and emotional expressions; one being expansive and extroverted, causing turmoil and provoking conflicts among the other participants, while the other showed complete passivity and apathy toward any situation. At no point did he refuse to participate in the proposed activities, but he always expressed himself in a restrained manner, making sure he felt secure to do so. It was reported to the researcher by the school administration that these two students had recently lost their mother, who passed away during the birth of their younger brother, and that their behavior had changed since then.

One of the female participants at School B drew attention from the first meeting for displaying (and making it clear that she insisted on doing so) extremely hostile behaviors toward the researcher, the colleagues, and any school staff. She did not refuse to participate in any task, but she disturbed

the group and the environment, provoked misunderstandings among peers, made disrespectful and offensive comments, and felt the need to highlight any negative point about her colleagues or the school. This was an adolescent who, by exhibiting these behaviors, triggered feelings of disregard and anger in the school staff, so much so that the employees no longer gave her attention or set limits. At this point, the adolescent was already labeled by the team and was treated in accordance with that label. She would walk around the playground, enter and exit classrooms in a clear demonstration of defiance, while at the same time suggesting a need for attention that she was unable to receive. Despite her defiance toward the school staff, she strictly adhered to the group's schedule and rules, participated in the discussions (although often in a commanding and aggressive tone), and shared experiences with her peers. This suggests that within the group, she found the attention and respect she needed to at least try to control her emotions and minimally address her emotional needs, which were possibly at the heart of her maladjustment in the school environment, but could not be dealt with there. Observations about this participant were reported to the administration, suggesting that the family be contacted for the necessary referrals.

In both schools, it was observed that the participants felt safe in the group environment, expressed themselves, bonded with the researcher, and established agreements and rules among themselves that facilitated the execution of activities. Thus, it was possible to observe a positive qualitative development in the evolution of the groups, leading to the conclusion that offering spaces for discussion that allow personal and collective development can be beneficial for good social performance in different contexts.

Regarding the level of prosociality, it was measured at the time of the evaluations (Figure 2). In T1, the first evaluation (N=38), the results showed high (50%) and low (50%) levels; none of the adolescents had a medium level of prosociality at that time. In T2 (N=37, a loss representing 2.6% of the total) – the second evaluation – after the implementation of the intervention program at School A and before the start of the intervention at School B, 51.4% had a high level, 2.7% had a medium level, and 45.9% had a low level.

In T3 (N=34, four losses during the period, representing 10.5%) – the third evaluation – after six

months following the completion of the intervention at School A and immediately after the conclusion of the intervention at School B, the sample showed 61.8% of the adolescents with a high level of prosociality and 38.2% with a low level. In T4 (N=15) – the last evaluation – a moment when only School B was evaluated to measure the effects of the intervention after six months, 40% of the adolescents had a high level of prosociality, 6.7% had a medium level, and 53.3% had a low level.

Evaluating the overall sample, it is noticeable that immediately after the intervention, there was a change in the proportion of prosociality levels in both schools (assessed in T1 and T2). One could hypothesize that the decline in prosociality in T3 might be explained by it being a follow-up evaluation at School B, six months after the intervention ended, suggesting that the interruption of the meetings might have led to a decrease in the expression of prosocial behaviors and attitudes among the participants.

At School A, it was observed that in T1, 68.4% of the adolescents had a high prosociality level, and 38.6% had a low level. In T2, there was a loss in this school, and the prosociality levels of the sample changed, with 50% of participants classified as having a high level and 50% with a low level. In the T2 evaluation, six months after the intervention ended in this group, the results showed the following: a loss of three adolescents due to school transfers; among those who remained in the group, 62.5% showed a high level of prosociality, and 37.5% showed a low level of prosociality.

At School B, at the beginning of the study, the following data regarding the level of prosociality were observed: 68.4% of the sample had a low level, and 31.6% had a high level. In T1, marking the start of the intervention in this group, 42.1% of the adolescents had a low level, 5.3% had a medium level, and 52.6% had a high level. By the end of the intervention program, in T2, a high level of prosociality was observed in 61.1% of the group, and a low level in 38.9%, with a loss in the follow-up. Finally, in T3, when the group was reassessed six months after the intervention, the levels of prosociality observed were 40%, 6.7%, and 53.3%, respectively, for high, medium, and low levels. This final evaluation took place at the beginning of the following school year, which may explain the losses (due to school transfers and changes of municipality).
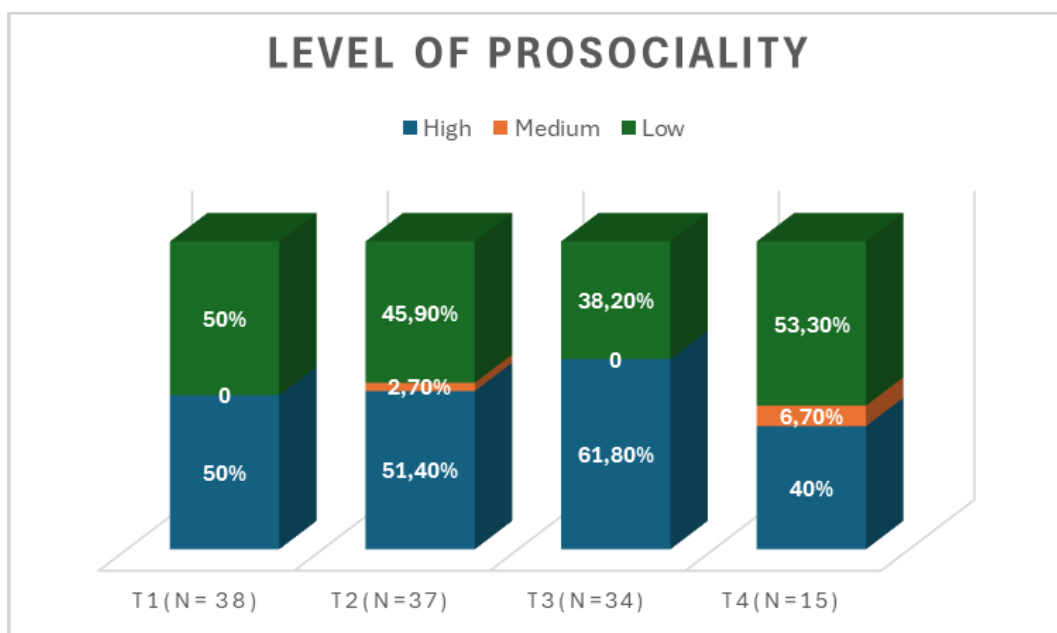
Figure 2 - Level of prosociality of the overall sample at different evaluation points.

Throughout the development of the project, it was possible to observe the development and strengthening of bonds, empathy, and solidarity, both among participants and in relation to the adults within the school context. This aligns with what the literature has suggested regarding the fact that prosocial behaviors are also learned and serve as important strategies in preventing maladaptive actions, such as violence[16,24,7], which in turn makes relationships healthier and behaviors and actions more positive.

All participants showed interest in the project and were engaged throughout the entire process. During the implementation of the program, there was a loss due to a student's transfer to another school, and during the follow-up evaluation, five losses were accounted for due to school transfers or changes in municipality. Voluntary participation was considered an important factor in the adherence to the proposed activities and engagement in the groups. It was observed that over time, during the program's implementation, participants felt valued and respected by their peers, also valuing their ability to make choices and decisions. This was an important factor in their development as individuals, who, despite going through all the inherent transformations of adolescence, need to be understood in their differences and singularities as unique beings[4]. It was also noted that disciplinary issues are quite complicated, and when these issues are not clarified and controlled, any proposed work becomes very time-consuming. However, it was possible to perceive that establishing discipline, when adopted in a way that considers the needs and limits of the group, becomes productive.

DISCUSSION

By proposing the Prosocial Intervention Program to the selected schools, the aim was to investigate, enhance, and develop prosocial behaviors within that context. Beyond this, it also contributed to the holistic development of adolescents by providing them with a learning space and an environment for exchanging experiences, distinct from the formal teaching context. Furthermore, it enabled the development and refinement of prosocial behaviors that are valuable in any context of their lives, extending to all interpersonal relationships over time.

The literature suggests that age is an influencing factor on prosociality, meaning that as age increases, so does concern for issues of equity and justice, and prosocial behaviors become more frequent[25,26,27]. More recent studies continue to support the influence

of age on the development of prosocial behaviors. As children grow, their understanding of justice and equity evolves, which is reflected in more frequent actions of helping and sharing. For instance, research indicates that older children demonstrate a greater tendency to share resources fairly compared to younger children[28]. There are also gender-related differences in prosocial behaviors, indicating that during childhood, same-sex peer relationships show distinct patterns: friendships among girls are more characterized by prosocial behaviors, while friendships among boys tend to exhibit antisocial behaviors more frequently[29,30]. Additionally, the literature emphasizes that prosocial moral development is closely linked to socialization experiences, which play a fundamental role in promoting prosocial attitudes from childhood through adolescence[31].

This intersects with discussions in pedagogy and Educational Psychology regarding the agreements established with students in this case, the participants and the issues of respect and affection that make the process of knowledge exchange smoother and more enjoyable. It was also possible to observe that adolescents feel abandoned and insecure concerning the behaviors of adults around them both inside and outside of school. However, the role played by teachers, principals, and other school authorities is highly significant in their eyes. They express confusion about the exercise of authority by these individuals, sharing experiences and voicing concerns, ambivalence, and dissatisfaction at not feeling heard or believed. At the same time, they recognize the school context, particularly these authorities, as their only viable source for seeking help to resolve their conflicts, whether internal to the school or external. This ambivalent feeling generates both comfort and insecurity, underscoring the need for school administrators and teachers to revisit their roles of authority, as they serve as official models for individuals actively constructing and asserting their own identities.

Beyond the themes established for the project, it became clear that adolescents need an open and specific space to discuss issues pertinent to their unique world. Topics such as sexuality, drugs, relationships, and future aspirations emerged during discussions and were partially addressed within the scope of prosociality, which was the central objective of the intervention program. However, it is evident that these subjects require targeted attention, respecting the adolescent's unique universe. Providing them with a voice, acknowledging and embracing their thoughts and feelings on each topic, allows for guidance in a respectful, positive, and non-impositional manner[30].

CONCLUSION

It can be concluded that the study on prosocial intervention among adolescents in the school context yielded positive results, highlighting relevant aspects of young people's realities that merit further analysis. Although limited by the absence of specific age groups, the study revealed trends aimed at encouraging healthy and positive attitudes, reinforcing the impact of socioemotional interventions in the school environment at both individual and collective levels.

The research did not aim for generalizations but instead provides contributions for reflection and further studies. It indicates that developing social and emotional competencies can foster the creation of theoretical and practical models, broadening discussions within educational and health contexts. By integrating these competencies with an understanding of individuals' internal issues and vulnerabilities, the research promotes a comprehensive and healthy perspective on human development. Furthermore, it underscores the importance of early school initiatives to build a society with better opportunities and developmental conditions.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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