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Social Emotional Learning (SEL) Program Among Fifth graders, Three and Six Months Later

MARISANGELA SIQUEIRA DE SOUZA

Doutoranda em Psicologia Social Universidade do Estado do Rio de Janeiro (UERJ)

ADRIANA BENEVIDES SOARES

Universidade do Estado do Rio de Janeiro (UERJ),
Universidade Salgado de Oliveira (UNIVERSO), Niterói, Rio de Janeiro, Brasil

CLARISSA PINTO PIZARRO DE FREITAS

Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Rio de Janeiro, Brasil



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Correspondence concerning this article should be addressed to Dr. Marisangela Siqueira de Souza, [e-mail: profmarisangela@gmail.com](mailto:profmarisangela@gmail.com)

SCIENTIFIC RESEARCH ARTICLE

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Abstract

This study carried out a follow-up three and six months after the application of a Social Emotional Learning (SEL) program, aiming to verify the maintenance of social skills in Elementary Education students in situations of social vulnerability from Rio de Janeiro, Brazil. A sample of the intervention and control groups composed of 20 students aged 10 to 13 ($M = 10.3$, $SD = 0.8$), boys and girls were selected. The SSRS (Social Skill Rating System) and the TDE (School Achievement Test) used in the intervention for teachers and students were reapplied. The results showed that the decrease in psychopathological symptoms and the improvements in academic performance were maintained after the intervention. These findings highlight the relevance of developing social emotional learning programs with elementary school students.

Keywords: elementary education students, Follow-up, social emotional learning, social vulnerability.

Intervención de Habilidades Sociales en Estudiantes, Tres y Seis Meses Después de su Participación

Resumen

La investigación realizó un *follow up* de tres y seis meses después de un entrenamiento de habilidades sociales (EHS), con el objetivo de verificar el mantenimiento de habilidades sociales de estudiantes de la Enseñanza Fundamental en situación de vulnerabilidad social en Rio de Janeiro, Brasil. Se hizo selección de una muestra de los grupos intervención y control compuesta por 20 alumnos, de edades entre 10 a 13 ($M=10.3$; $DE=0.8$), niños y niñas. Reaplicó los instrumentos SSRS (*Social Skill Rating System*), TDE (Prueba de Desempeño Escolar) utilizados en la intervención para profesores y alumnos. Los resultados mostraron que las ganancias del grupo de intervención en habilidades sociales, disminución de síntomas psicopatológicos y mejora en el rendimiento académico se mantuvieron después de la intervención. Estos hallazgos destacan la relevancia de desarrollar la formación en habilidades sociales para los estudiantes de la escuela primaria.

Palabras clave: entrenamiento de habilidades sociales, estudiantes de la Enseñanza Fundamental, *Follow up*, habilidades sociales, vulnerabilidad social.

SOCIAL COMPETENCE in childhood has been highlighted as an important factor for a satisfactory development trajectory, as it increases the child's ability to deal with adverse and stressful situations (Gresham, 2004). The family and school environments are where most interactions occur at this stage, as well as where conflict situations occur more often (Del Prette, A., & Del Prette, 2017). The authors emphasize that the teaching of social skills can favor the process of adaptability of the child to the school context and mention skills that every child should acquire, as: classroom survival (listening, asking for help, giving thanks, following instructions, finishing tasks, asking questions); dealing with stress and their own feelings (dealing with annoyance, making and responding to complaints, expressing self-control, dealing with shame and failure, knowing how to say and accept "no"); and making friends (joining a group, introducing oneself, showing empathy, cooperating, demonstrating sportsmanship). Interventions in this field have shown positive results in the formation of more socially competent individuals. In a bibliographic study of SEL programs, interventions proved to be successful in the prevention of the variables evaluated and the expressive results included the increase of the repertoire of children's social skills and the reduction of behavioral problems (Abreu et al., 2016). Positive peer interaction from childhood can affect children's future interactions, making them more confident and skilled at conflict resolution, and can also act preventively by inhibiting aggressive behavior (Marturano et al., 2014).

Studies have proposed that skills learned in childhood may favor children or teenagers' future development due to being associated with improved behavioral problems and academic performance and as a preventive factor for psychosomatic diseases (Killian & Killian 2011; Michelson et al., 2013; Schonfeld et al., 2015), especially in areas of social vulnerability. Children/teenagers living in this context may have aggravated behavioral problems and worse academic performance, as

they are more exposed to situations of violence and deprivation. Problems of behavior and academic performance are often interconnected and are recurrent issues throughout the Brazilian educational network, however, schools in areas of social vulnerability tend to present a more critical picture. The public of these schools is sometimes surrounded by situations that involve some type of adversity, and may have less access to leisure and culture, and often, they have a history of family conflicts. This reality can favor high school evasion and failure rates in this context (Libório et al., 2011; McCoy et al., 2015).

SEL programs to expand the repertoires of social emotional skills as empathy, assertiveness, and self-control, have been tested in the school context with positive results, however, few studies have followed the effects of the intervention over time (Abreu et al., 2016), leading to questions as to whether the acquisition of acquired social skills is maintained and whether more socially competent behavior could be perpetuated. An intervention needs to be relevant and applicable in the individual's daily life and should be maintained, expanded and replicated in other situations favoring the full development of the subject (Murta, 2007). Understanding learning as a continuous and growing process, the aim of this study was to investigate what happened to the abilities acquired in a SEL program with fifth grade students in Rio de Janeiro, Brazil (Souza et al., 2019) after a few months, did it remain relevant? The hypothesis of the study was that the skills acquired during the program would be maintained. It has been assumed that the acquisition of social skills provokes its own reinforcers, since more adequate social behavior may reflect in better relationships and results (Martin et al., 2007), that is, by being able to interact with more social competence, positive feedback from peers and the improvement perceived by the individual would act as positive reinforcement of the learned behaviors, favoring their maintenance (Del Prette, A., & Del Prette, 2017; Rodrigues, 2007). Studies

that performed follow-ups after the intervention have almost entirely produced results that indicate the maintenance of the trained behaviors (Dias & Del Prette, 2015; Murta et al., 2009; Rodrigues, 2007; Schonfeld et al., 2015).

Concerning to the maintenance of positive gains of a SEL program, Rodrigues (2007) study proposed a SEL program among children ($N=70$) and six educators from a non-governmental institution in the city of Goiânia, GO, Brazil. Initially, baseline measurements of unskilled behaviors emitted by the participating children as verbal aggression, physical aggression, and disobedience were performed. The SEL program was carried out in groups and the educators reinforced more socially competent behaviors. The results highlighted the high frequency of unskilled behaviors during the baseline phases and the reduction of these behaviors during the program. After one month, the researcher performed a follow-up which verified the maintenance of the low frequency of unskilled behaviors. One of the emphases of this study is what the authors call "operant reinforcement" that would be the teachers' own training so that in daily contact with their students socially competent behaviors would be strengthened.

Murta et al. (2009) also performed an intervention study with 18 adolescents aged 12 to 14 years from a Brazilian Midwest city, conducted in sixteen weekly sessions, over five months, lasting 90 minutes each. The results were positive. Thirteen of the 18 adolescents and their parents were located and agreed to participate in the follow-up assessment conducted one year after the program. All the adolescents reported experiencing positive changes perceived as favored by participating in the intervention, as: improved interpersonal relationships in the family and peer group and greater dedication to constructing future projects. Parents' reports of changes in their children were consistent with those of their children, with reductions in family conflicts and the development of anger management, stress management, and new friendship building skills.

To verify the maintenance of the skillful behaviors acquired in an intervention with vulnerable students of the 5th grade of Elementary Education, the present study evaluated 20 subjects who were part of a SEL program, three and six months after the intervention, ten from the Intervention Group (IG) and ten from the Control Group (CG). Thus, the aim was to identify whether the trained skills (Civility, Self-Control, Assertiveness, and Academic Social Skills) lasted, as well as the improvement in students' behavioral problems and academic performance or whether the discontinuity of the process can promote forgetting and regression of the skills acquired, also taking into consideration the results of the control group.

Method

Participants

A total of 20 children and adolescents enrolled in two classes of the 5th year of Elementary Education of a Municipal School in Rio de Janeiro participated in this study. These children and adolescents were categorized as living in a situation of social vulnerability for living in a poor region of the municipality considered violent and registered drug trafficking. The children were between 10 and 13 years of age ($M=10.4$ years; $SD=1.0$ year), with 60% being female. The children were divided into two groups, the intervention group and the control group. The intervention group evaluated in the present study consisted of 10 students with a mean age of 10.4 years ($SD= 1.0$ year; range 10 to 13 years), with 60% of the participants being female. The control group in this study consisted of 10 students, aged 10 to 13 years ($M =10.5$ years; $SD=1.4$ years), with being 60% female.

To complement the students' assessment of social emotional program, the control group and the intervention group teachers collaborated with the study as well, evaluating the behaviors of each of their students over time. The two teachers who collaborated with the evaluation of their students were female, enrolled as public school teachers

with tenure, had completed higher education, the teaching time between 6 and 20 years.

Instruments

The Social Skills Rating Scale (SSRS) (Gresham & Elliott, 1990), adapted to the Brazilian context by Freitas and Del Prette (2015) assesses the Social Skills repertoire, indicators of Behavior Problems, and Academic Competence of children aged 6 to 13 years. The students and teachers responded respectively to the Student and Teacher inventories. The inventory for children consists of 20 items that assess behaviors related to Empathy, Responsibility, Assertiveness, and Self-Control. Students answered the SSRS dimensions of Social Skill Scale according to a Likert type scale ranging from 0 to 2 (0 = *never* to 2 = *very often*). In the adaption study of SSRS, Freitas and Del Prette (2015) observed that students' version of the inventory had a satisfactory internal consistency index for the general score ($\alpha=.73$), and values below expectations in the dimensions (Empathy/Affectivity, $\alpha=.52$, Responsibility, $\alpha=.58$, Self-Control/Civility, $\alpha=.49$, Assertiveness, $\alpha=.34$). In the present study the participants scores were assessed through the mean of each dimension of Social Skill Scale, in a way that the lowest score that a participant could obtain in each dimension was zero and the highest was two.

The inventory of SSRS for teachers consists of three scales. The first investigates the frequency and importance of the child's social skills, consisting of 22 items, teachers answered each item on a Likert type scale ranging from 0 to 2 (0 = *unimportant* to 2 = *very important*). The second evaluated the frequency of problem behaviors through 14 items, the items were answered by the teachers on a Likert type scale ranging from 0 to 2 (0 = *never* to 2 = *very often*). The third used nine items to assess the student's academic competence, in this scale teachers had to classify their students according a Likert type scale from 1 to 5 (1 = *the lowest 10% percentile of the class* to 5 = *the highest 10% percentile of the class*). Freitas and Del Prette (2015), observed that all dimensions of SSRS teachers

versions showed satisfactory internal consistency, as observed on the Social Skills Scale (Responsibility of the student, $\alpha=.91$, Self-Control/Civility of the student, $\alpha=.85$, Assertiveness/Social Resource of the student, $\alpha=.80$, Cooperation/Affectivity of the student, $\alpha=.86$), Behavior Problems Scale (Externalizing Behavior Problems of the student, $\alpha=.90$, Hyperactivity of the student, $\alpha=.85$, Internalizing Problems of the student, $\alpha=.77$), and Academic Competence assessed by the teachers ($\alpha=.98$). The scores that teachers gave to students in the Social Skills Scale and the Behavior Problems Scale were calculated through the mean of each dimension, so the lowest score that a student could receive was zero and the highest score was two. The Academic Competence score that students received from their teachers were also investigated through the mean of the dimension, in a way that the lowest score that a student could obtain was 1 and the highest score was 5.

The School Achievement Test (*Teste de Desempenho Escolar - TDE*) (Stein, 1994) was used to assess the skills fundamental for academic performance in reading, writing, and arithmetic. This instrument is suitable for evaluating Brazilian students from the 1st to 6th grades of Elementary Education. Reading skills were investigated by recognizing 70 words isolated from the context. Writing skills were assessed through the proper name and more 34 contextualized words writing, presented as a dictation. Arithmetic skills were measured by solving three oral problems and 35 written calculations of arithmetic operation. Each subtest presented a scale of items in increasing order of difficulty that are presented to the child regardless of their grade. In the present study the answers of students were evaluated as right or wrong, in a way that the higher score that the participant could obtain in the writing scale was 35, the higher score in the arithmetic scale was 38, and the higher score in reading scale 70. The application of each subscale was interrupted by the applicator as soon as the items presented were very difficult to be solved. In a study with 485 children of 6 to 12 years, Santos and Fernandes (2016) observed that

the three dimensions presented excellent internal consistency (reading, $\alpha=.99$, writing, $\alpha=.93$, and arithmetic, $\alpha=.93$).

Data collection and intervention procedures

The students participated in an intervention consisting of 10 weekly sessions lasting for 60 minutes each. The program consisted of diverse techniques for the promotion of social skills (Table 1). The intervention was developed by the first author of this study (Souza et al., 2019). The control group received no intervention to promote social skills, and only the tests were applied.

Data collection occurred throughout the academic year of 2018. Data collection was performed at four moments with the children from the intervention group, the control group, and the two classroom teachers. The intervention group responded to the instruments in the first session (T₁), the last session (T₂), at three months (T₃), and at six months (T₄) after the intervention ended. The control group and the classroom teachers also

answered the instruments at the four moments of the study, being evaluated during the same collection period as the intervention group. The four moments of application of the instruments to the students were performed at previously scheduled times. Students answered the instruments collectively during school hours. Teachers answered about their students' evaluations individually after school hours.

It is important to notice that in the municipal elementary school, the 5th grade classes have a teacher responsible for most of their school activities. So, teachers that collaborated in this study accompanied the children over the 5th grade school year. In the intervention group the teacher accompanied the students before and after the intervention, as well as the follow-up evaluations. In the control group, the teacher accompanied the students during the four evaluations over the 5th grade classes. These teachers were invited to perform the hetero evaluation of children, as a strategy to assess the effectiveness of the intervention.

Table 1
Interventions Approach.

Abilities	Goals	Activity	Homework
Civility	<ul style="list-style-type: none"> Demonstrate good manners; Improve communication; Use proper terms for good interaction. 	<ul style="list-style-type: none"> Power Point on the topic; Discussion and understanding of the proposal. 	<ul style="list-style-type: none"> Use the words learned in the skilled model at home, at school and with strangers.
Assertiveness	<ul style="list-style-type: none"> Give opinions; Refuse abusive requests; Deal with criticism; Request behavior change; Express displeasure. 	<ul style="list-style-type: none"> Video on the topic, showing different reactions; Discussion and understanding of the proposal. 	<ul style="list-style-type: none"> Report three situations in which you were able to be assertive and the results of that.
Self-Control	<ul style="list-style-type: none"> Deal with your own feelings (positive or negative); Control anger; Skillfully expressing emotions and feelings. 	<ul style="list-style-type: none"> Video on the topic, showing different reactions; Discussion and understanding of the proposal. 	<ul style="list-style-type: none"> Report two stressful situations in which you were able to react in a more controlled manner.
Academic Social Skills	<ul style="list-style-type: none"> Request help; Identify difficulties; Work in a group; Stay focused; Work with discipline; Increase self-esteem. 	<ul style="list-style-type: none"> Proposed texts, showing different postures; Discussion and understanding of the proposal. 	<ul style="list-style-type: none"> Keep school assignments up to date; Request help from the teacher and colleagues; Identify and celebrate achievements.

Ethical procedures

The study was performed after approval from the Research Ethics Committee of the Salgado de Oliveira University under authorization number 2.001.230. The parents and teachers signed a consent form and the children signed the assent form, according to the guidelines of resolution 466.2012.

Data analysis procedure

Two data analysis strategies were applied in the present study. The first data analysis strategy aimed to compare the means of the Social Skills, Behavior Problems, and Academic Performance dimensions of the SSRS and of the TDE Writing, Reading, and Arithmetic dimensions over the four research moments (T1, T2, T3, and T4) for the intervention and control groups. To perform these analyses, Mixed Univariate Analysis of Variance (ANOVA) was performed for each construct investigated. In all the ANOVAs performed, the moment of collection (T1, T2, T3, and T4) and the group to which the participant belonged (control and intervention) were established as independent variables. In case of a statistic significant result in the ANOVA, post hoc comparisons were performed using the Bonferroni test. Also, the effect size Eta squared (η^2) of each ANOVA was computed. Due to the reduced number of participants in each group, all ANOVA analyses were performed using a bootstrap strategy (1,000 resampling bootstrap) (Krishnamoorthy et al., 2007). The ANOVA analyses were developed using the R software (R Core Team, 2020) through the *rstatix* package (Kassambara, 2021).

The second data analysis strategy sought to verify the reliability of the individual changes among the intervention participants through the JT Method. The JT Method assesses whether the change presented by the participant can be categorized as a reliable change (Del Prette, Z., & Del Prette, 2008). The reliability change index evidenced that the improvements in participants scores after the intervention and in the follow up

assessments are due to the procedures performed in the intervention. The calculation of the reliability change index is performed through the difference of the scores after the intervention with the scores in pre-test, being that the result of this subtraction is divided by the standard error of the difference. This calculation makes possible to assess the change in the participants' scores by means of standardized scores. Thus, in the analysis of positive outcomes, as empathy, affectivity, responsibility, self-control, civility, assertiveness, social resource, cooperation, academic competence, writing, arithmetic, and reading performance, the reliability change index higher than 1.96 were categorized as positive clinical change, values lower than -1.96 indicated negative clinical change, and values lower than 1.96, and higher than -1.96 showed an absence of clinical change. On the other hand, in the evaluation of negative outcomes, like externalizing behavior problems, hyperactivity, internalizing problems, values lower than -1.96 evidenced as positive clinical change, values higher than 1.96 indicated negative clinical change, and values between 1.96 and -1.96 were interpreted an absence of clinical change (Jacobson & Truax, 1991).

Results

The results of the analysis of the interaction condition of the students (intervention and control) and comparison of scores over time (T1 versus T4) showed that the students that participated in the intervention group had higher means in the responsibility dimensions, self-control/civility, and assertiveness assessed by the participants, performance in arithmetic, self-control, social assertiveness/resourcefulness, and cooperation/affectivity when compared to themselves at T1 (responsibility, self-control/civility, and assertiveness assessed by the participants, performance in arithmetic, self-control, assertiveness/social resourcefulness, and cooperation/affectivity) and when compared to the students in the control group (responsibility,

self-control/civility, and assertiveness assessed the participants, performance in arithmetic, self-control, assertiveness/social resourcefulness, and cooperation/affectivity). The contrast analysis of interaction condition of the students (intervention and control) and comparison of scores over time (T1 versus T4) also demonstrated that the participants in the intervention group had significantly lower means in the internalizing problems dimension assessed by the teachers when compared to themselves at T1 and to the control group at T4 (Table 2).

The findings of the comparative analysis of the groups demonstrated that the intervention was effective in promoting the development and maintenance of social skills over time (responsibility, self-control, civility, assertiveness, social resourcefulness, cooperation, and affectivity). In addition, this intervention contributed to improved performance in arithmetic and reduced the presentation of internalizing problems in the students that participated. Although the intervention contributed to the improvement of the students in several dimensions, the intervention did not have a significant impact on the empathy and affectivity dimensions assessed by the participants, on the responsibility, externalizing behavior problems, hyperactivity, and academic competence evaluated by the teachers, nor on the reading and writing performance (Table 2).

The results of the JT method showed that the participants presented positive maintenance of the effects of the intervention on the empathy/affectivity, responsibility, self-control/civility, and assertiveness dimensions assessed by the participants, on the responsibility, self-control, assertiveness/social resourcefulness, cooperation/affectivity, and academic competence evaluated by the teachers and on the

performance in reading, writing, and arithmetic. In addition, a reduction in the externalizing and internalizing behavior problems was reported by the teachers. The improvements presented by the participants were characterized as reliable positive changes (Table 3).

Discussion

In the comparison of the post-test means, three and six months after the intervention, of the academic performance (TDE) and behavioral problems (SSRS) variables in each group, the results highlighted not only the maintenance, but a continuous improvement for the group where the training was applied, which was not the case for the cG. In this respect.—We can infer that students tend to hone their learned skills and that school age would be the ideal time not only for skills improvement but for the prevention of behavioral problems (Killian & Killian 2011). The more the student achieves positive results by exercising the skills learned, the more these skills improve, as these results act as reinforcers of socially competent behavior (Rodrigues, 2007). For the cG, it was observed that there was worsening in externalizing and internalizing problems and hyperactivity. Behavioral problems are present in everyday school life; however, they are more frequent in schools located in socially vulnerable areas (Libório, Coêlho, & Castro, 2011; McCoy et al., 2015). When accentuated, they can impair all future development of the individual and even evolve to more serious disorders in adulthood as substance dependence or crime (Killian & Killian 2011). This reinforces the need for interventions specifically in these schools in so-called “needy” areas and the increase of actions for the SEL that has been presented as an important tool to improve students’ social skills (Schonfeld et al., 2015).

The results show that the differences between the means of the tested variables were significant and that the maintenance of the IG gains were superior when comparing the student with him/herself, at the two moments, T₁ and T₄, in various dimensions. The advantage can also be observed when compared to the control group, with greater gains for the group that participated in the intervention. These results corroborate the study by Dias and Del Prette (2015) who also found better results for the IG and, when following up after six months, obtained results that suggest the maintenance of the gains for most of the IG participants. Therefore, it is clear that children are able to learn and maintain more socially competent behaviors (Del Prette, A., & Del Prette, 2017). Comparing the perception of the acquisition of social skills, from the assessments of the children and teacher, three and six months after the intervention, a better perception of changes by the children can be seen occurring in the third moment of the study, when the children saw themselves as more responsible, with more self-control, and more socially competent. For the teachers, this perception seemed to occur before, from the second moment and, in addition to those changes perceived by the students, included perceiving them as more assertive and more cooperative, meaning that the children took a little longer to perceive the changes in their behavior that their teachers had already reported. This result contradicts the more positive child bias found in other studies where children demonstrated very positive evaluations about themselves since the beginning. (Barreto et al., 2011; Casali, 2010). This may be justified by the fact that they were children at social risk and may indicate self-image problems. Accordingly, expanding the social skills repertoire of children, especially those in situations of social vulnerability, can contribute to improved self-image and self-efficacy. The more positively the individuals see themselves from childhood, the greater the likelihood of

more satisfactory development (Del Prette, A., & Del Prette, 2017).

The individual results of reliable positive changes (JT Method) reinforce the positive maintenance of the social skills trained with the participants of the IG, as well as reaffirming the maintenance of the reduction in externalizing and internalizing behavior problems as evaluated by the teachers. Externalizing behavioral problems correspond to aggressive behavior, disobedience, poor impulse control, tantrums, tantrums, and delinquent behavior (Achenbach, 1991). Referrals and care due to school complaints are constant and are individualizing and stigmatizing (Bray & Leonardo, 2011). These problems are also related to a low social skills repertoire. Thus, the result reinforces the effectiveness of using SELSADD as an important tool to help students with constant school complaints, corroborating the study by D. Martin et al. (2007), who found that by increasing their social skill levels, adolescents with a history of externalizing behavioral problems improved class attendance, decreased the incidence of suspensions and expulsions, and improved academic performance. Universal interventions can also be used with regard to school complaints, (Gresham, 2004), being these programs aimed at all individuals in a given group, regardless of the degree of symptoms presented, adapting the program to the specific context and the specific demands as locality, class age, class aims, and local challenges. These programs have the advantage of avoiding stigmatization by not discriminating against children and adolescents by characterizing them as 'problematic' or 'non-problematic' (Murta, 2007).

The IG also showed a reduction in internalizing problems, while this worsened in the cG. Internalizing behavioral problems refer to withdrawal, fear, and sadness, they compromise interactions and increase the likelihood of peer rejection or victimization, with the individual presenting academic performance deficits and developing medium or long-term depression or anxiety disorders (Schiavoni & Martinelli, 2017).

Social skills training has also been shown to be an important tool in improving internalizing problems in children, favoring more positive interactions, that can make them more confident and skilled in conflict resolution (Marturano et al., 2014).

Also, in the reliability change index (RCI), the improvements in the students' academic performance were also maintained according to the evaluation of the teachers. Accordingly, it is understood that behavioral and academic performance problems are often interconnected (Dias & Del Prette, 2015). When there is an improvement in behavioral problems the student becomes more responsible and committed to academic activities, while improvements in academic performance can affect social relationships by decreasing behavior problems (Schonfeld et al., 2015). Besides, the TDE subscales (reading, writing, and arithmetic) can reflect other general aspects of learning, about the improvements found in academic performance in this study, it is possible that it reflected the results of other variables influence as a specific work of the school with all classes, since the change for the better happened with the group that did not receive the program as well.

Final Considerations

This follow-up study aimed to monitor a sample of the intervention and control groups of children/teenagers in the 5th grade classes of Elementary Education from a school in a socially vulnerable area at three and six months after a SEL program intervention (Souza et al., 2019). The instruments reapplied with the children and teachers sought to measure whether the skills learned were maintained, the extent of the maintenance and their impacts on behavioral problems, academic performance, and the social skills repertoire.

The results showed higher scores for the IG compared to the CG. The students of the IG maintained the gains reported in the first moment of the study and showed significant improvements in the social skills repertoire. From the study variables, regarding the social skills it can be stated

that the repertoire was expanded. Concerning the behavioral problems, there was a significant decrease and, regarding academic performance, although some students showed gains, the results were less expressive, being more noticeable after the post-test, with this seeming to require more time for a significant improvement to take place or it represents just a result of school working.

Conducting follow up research or longitudinal studies with children and adolescents in school context can strengthen the importance of life skills training aiming to prepare individuals for better future social interactions. Universal interventions as student discipline plans, bullying prevention, and interpersonal social emotional learning could be part of the curriculum throughout the school period. Accordingly, from the "reinforcement" (that would consist of the teachers' own training so that, in the daily contact with their students, socially skilled behaviors would be strengthened), the skills learned could be enhanced and applied in other contexts.

The school can be considered one of the most conducive places for training that reinforces social competence, as students spend most of their time there and are exposed to varied and constant situations of interaction. It is understood, then, that SEL programs represent a possible tool to respond to the constant problems related to behavior and poor academic performance that have been getting worse in the school context, especially in public education institutions located in vulnerable areas. Therefore, this study corroborates the effectiveness of SEL programs, especially with students more exposed to situations of violence and deprivation. Concepts as: "civility", "empathy", "self-control", and "assertiveness" are now being used and understood by students and by staff and faculty. School interactions now have general agreement rules that can change the school environment from hostile to cooperative.

Studies as this reveal that socio-emotional learning can also reflect on students' academic performance and may promote new future

opportunities and better living conditions for these individuals. It reinforces that the skills learned tend to be maintained and even improved and indicates the importance of intervention programs that have the participation and involvement of everyone (parents, teachers, school managers, and education agents) that is part of the daily life of the students.

Study limitations include the fact that it occurred in only one school and with a specific grade. Interventions with vulnerable populations should be tested in other locations and grades. Following these same students throughout the following grades in a longitudinal study would be of great relevance.

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