Intervention in social skills and bullying

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Method: Quasi-experimental study with 78 students who were bullying victims. A cognitive behavioral intervention based on social skills was conducted with the intervention group. The eight sessions addressed politeness, making friendships, self-control, emotional expressiveness, empathy, assertiveness and solution of interpersonal problems. Data were analyzed using Poisson regression with random effect.

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Conclusion: Social skills are important in anti-bullying interventions and can be the basis for intersectoral interventions in the health area, aimed at favoring the empowerment of victims by improving their social interactions and quality of life in school.

Descriptors: Violence; Bullying; Aggression; Social Skills; School Health.

How to cite this article:

Submission: 03-21-2017 Approval: 06-07-2017

ABSTRACT

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Descriptors: Violence; Bullying; Aggression; Social Skills; School Health.

RESUMO

Objetivo: Verificar se a melhoria de habilidades sociais reduz a vitimização por bullying em estudantes do 6º ano escolar após 12 meses da finalização da intervenção. Método: Estudo de intervenção quase-experimental com 78 estudantes vítimas de bullying. Realizou-se uma intervenção cognitivo comportamental baseada em habilidades sociais com o grupo intervenção. As oito sessões realizadas enfocaram habilidades de civilidade, fazer amizades, autocontrole e expressividade emocional, empatia, assertividade e solução de problemas interpessoais. Os dados foram analisados mediante regressão de Poisson com efeito aleatório. Resultado: O grupo da intervenção melhorou significativamente as habilidades sociais. A vitimização reduziu-se significativamente em ambos os grupos (intervenção e comparação), porém, em maior quantidade no grupo intervenção. Conclusão: As habilidades sociais são importantes em intervenções antibullying e podem fundamentar intervenções intersetoriais na área da saúde, visando favorecer o empoderamento das vítimas mediante a melhoria de suas interações sociais e qualidade de vida na escola.

Descritores: Violência; Bullying; Agressão; Habilidades Sociais; Saúde Escolar.

RESUMEN

Objetivo: Comprobar si la mejora de las habilidades sociales reduce a la victimización por acoso escolar (bullying) en estudiantes del 6º año de primaria, después de 12 meses de concluida la intervención. Método: Estudio de intervención cuasi-experimental entre 78 estudiantes víctimas de acoso escolar (bullying). Se llevó a cabo una intervención cognitivo-comportamental basada en habilidades sociales con ocho sesiones enfocadas en habilidades de civilidad, hacer amigos, autocontrol y expresividad emocional, empatía, asertividad y solución de problemas interpersonales. Los datos se analizaron a través de la Regresión de Poisson con efecto aleatorio. Resultado: El grupo intervención mejoró con respecto a las habilidades sociales; la victimización se redujo significativamente en ambos grupos (intervención y comparación), aunque en mayor cantidad en el grupo intervención. Conclusión: las habilidades sociales son
INTRODUCTION

Over the last decade in Brazil, there has been an increase in research addressing a specific type of school violence called bullying, which involves intentional and repetitive aggression perpetrated in a context of power inequality between victim and bully[12]. Aggressions usually happen out of the sight of adults and involve physical, verbal or relational aggressions, such as spreading rumors and socially isolating the victim[19]. The World Health Organization considers bullying as a global problem[4], with occurrence rates varying from 7% to 43% for victims and from 5% to 44% for bullies[5-6], with an overall mean of 26%-7. In Brazil, the National School-based Student Health Survey indicated a mean occurrence of 28%-8.

Identifying bullying can be difficult for the educational team, therefore, it may continue for long periods of time and, thus, negatively affect the education, health and quality of life of the students involved (victims, bullies and witnesses)[9]. However, victims are part of a more vulnerable group because they suffer directly and indirectly from these aggressions. Consequently, they demand interventions that could put an end to this violence. Some negative consequences for this group of students are feelings of insecurity, poor school performance, depression, insomnia and suicide[10-12].

Most victimized students, known as typical victims, have personal characteristics related to the lack of self-defense skills and difficulty to ask colleagues or teachers for help, such as shyness, anxiety and few friends[10,12]. Nevertheless, there is still another profile of bully-victims, who are characterized by both victimization and aggression high rates: they have disorganized and impulsive behavior, ineffectively responding to aggressions, and lack conflict resolution skills to solve their relational problems properly. Bully-victims are at greater risk of social rejection and development of psychosocial problems[11,13].

Both profiles present a common feature: lack of social skills. Social skills are behaviors that allow a person to be judged as competent in social tasks. A socially competent person can make and maintain friends easily, has good emotional control and can solve interpersonal problems without generating more conflict[14]. The improvement of the social skills of victimized students is important to promote greater social and emotional skills, which can reduce the vulnerability to bullying by facilitating friendships, conflict resolution, emotional self-control and adaptive coping strategies[10,13].

Interventions based on social skills have been developed in different countries and some of them follow the orientations from the World Health Organization (WHO), which recommends interventions aimed at the prevention and reduction of school violence as an initiative to promote health and improve the students’ quality of life[16]-[17]. This type of intervention was successful in reducing victimization in the United States[18], where most anti-bullying programs have minimal effect. In Australia, there was also a significant reduction in victimization among victims with anxiety symptoms[19].

School is often marked by changes that require from the students adaptation efforts that can be facilitated by higher levels of social skills[20]. For example, in the transition from elementary to middle school, students need to deal with the change of school, new school subjects, changes in the way they interact with teachers, and are also in contact with a larger number of unknown colleagues[20-22]. In this context, the victim’s lack of social skills can make it difficult to make friendships, defend from aggression and adapt during the transition period.

Literature indicates the need to intervene early in violence, aiming to prevent it and promote healthy behaviors, avoiding the development of school and health problems[23]. In this context, it is also important to check if the results of the interventions persist over time or are restricted to a short period after their completion. The most effective interventions are those that can maintain their results for long periods after their implementation[10].

OBJECTIVE

To verify if the improvement of social and emotional skills reduces bullying victimization in 6th grade students 12 months after the end of the intervention.

METHOD

Ethical aspects

The study was approved by the Research Ethics Committee of the University of São Paulo, Ribeirão Preto Nursing School. The Regional Education Board and school principals also authorized the research. Parents/guardians consented to the participation of the students through the signing of a Consent Form (CF). Adolescents signed an Agreement Term. In all stages of the investigation, the recommendations and guidelines of Resolution 466/2012 of the National Health Council were followed.

Study design, setting and study date

This is an intervention study with quasi-experimental design carried out in six public schools[1] in a city located in the countryside of the state of São Paulo. Pre and post-test evaluations were conducted respectively in March and June 2015 with intervention and control groups. The intervention based on social

1 Public schools in Brazil are fully founded by the government and free of fees for the population.
skills was conducted between March and May, in 2015. The follow-up evaluation occurred one year later, in June 2016.

**Study population and inclusion criteria**

A total of 522 6th grade students from six public schools were invited to participate in the study, of which 411 accepted to answer the questionnaires. Subsequently, 85 victims were identified, but 5 withdrew participation during the sessions and were excluded from the study. The final sample consisted of 78 participants, 40 (51.3%) typical victims and 38 (48.7%) bully-victims. The inclusion criteria were: having a high frequency of attendance, having authorization from a parent or guardian for participating in the study and being a victim of bullying. Considering the sample with 78 subjects, with a magnitude of effect of 0.22 (between low and medium), we obtain a “sample power” of 64%.

**Protocol**

Eight weekly sessions were held in the schools, with 50 minutes each. Each group had 8 to 10 participants. The sessions addressed content and activities related to good manners, making friends, self-control, emotional expressiveness, assertiveness and solution of interpersonal problems14. The intervention was conducted by one of the researchers responsible for the study, and the contents and activities followed specific instructions14, with the objective of ensuring fidelity in the application of the intervention.

The structure of the sessions was based on cognitive-behavioral techniques: role-play, dramatizations, positive reinforcement, modeling, feedback, videos and homework. Each meeting was organized in three moments: 1) beginning - the participants commented about the homework and received feedback, orientation and support from the group and from the coordinator; then, a brief summary of the previous meeting was present; 2) middle - the activities scheduled for the meeting; 3) end - homework assignment and feedback on the meeting from the participants and from the coordinator. Homework assignments were strategies designed to offer support to students in the generalization of social skills in contexts other than the intervention environment. In the intervention process, students not involved in bullying situations were also included as an extra component, aiming to promote an interaction between victims and prosocial peers and to stimulate friendships that increased the social support and the help offered to the victims. However, the results presented in this article refer only to the victims who were the focus of the study.

Participants were allocated in intervention and control groups within the same schools in order to have comparable samples. Thus, the nine classrooms of the intervention group and the nine classrooms of the control group presented similar amounts of victims, bullies and students not involved in bullying situations. All the students not involved and the victims in the classrooms of the intervention group were invited to participate in the intervention. All of them agreed to participate in the intervention proposed. The students were distributed in the groups (intervention and control) in an average proportion of 40-50% of victims and 50-60% of students not involved. The same procedure occurred for gender because there were more girls than boys.

The assessment of the amount of bullying practiced or suffered by the students, as well as the definition of the profile to which they belonged (victims, bully-victims, bullies and not-involved) was obtained by applying the Peer Victimization and Aggression Scale - EVAP24, which provided the mean of victimization, total aggression, aggression per participant of the groups (intervention and control) and the definition of the profiles. The difficulty in social skills was evaluated by the Social Skills Multimedia System for Children (SMHSC)25, which provided standardized scores for each subject and was used to calculate the means of the groups. The Sociometric Scale26 provided the gross scores of the participants by the sum of the indications received in the variables peer acceptance, few friends, conflict resolution and sympathy. The groups were evaluated with the same instruments before the intervention (pre-test), after the intervention (post-test) and one year later (follow up).

**Analysis of results and statistics**

The analysis was performed with the SAS program, using the procedure of generalized linear models (PROC GENMOD). Initially, the results were described in mean and standard deviation. Then, the scores of the variables of interest were compared regarding time (pre-test and post-test) and groups (intervention and control). This step was performed using Poisson regression models with a random effect27. Considering that the standard deviation was higher than the mean for the variables difficulty in social skills, few friends, conflict resolution and sympathy, an over-dispersion component was added to correct the results due to variability. A significance level of 5%, p < 0.05 was considered for all analyzes.

**RESULTS**

The two groups were equivalent in relation to the sociodemographic characteristics. The mean age in the intervention group was 11.28 years old and in the comparison group it was 11.21 years old. The proportion of females was 72.1% in the intervention group and 58.8% in the control group, a non-statistically significant difference (p = 0.07). The skin color was similar in the groups (p=0.566): the intervention group had browns (48.8%), whites (38.4%), blacks (8.1%) and others (4.7%); in the control group, the proportions were browns (43.1%), whites (42.2%), blacks (8.8%) and others (5.8%). There was a sample loss of three subjects from the intervention group (7.3%) between the pre-test evaluation and the follow-up evaluation and two subjects from the control group (4.8%).

Table 1 shows the differences obtained by the Poisson regression model for the variables in relation to the intervention group and the comparison group in the pre-test and the follow up.

The results indicated a significant reduction in the total victimization in the intervention group (β = 0.276, SE = 0.087, p < 0.0001) and in the control group (β = 0.252, SE = 0.062, p < 0.0001). Only the control group presented a significant reduction in physical victimization (β = 0.274, SE = 0.056, p = 0.013). Verbal victimization was significantly reduced for both the intervention group (β = 0.266, SE = 0.111, p = 0.0008) and the control group (β = 0.210, SE = 0.065, p = 0.0045).
Relational victimization also showed a significant reduction for the victims of the intervention group ($\beta = 0.273, SE = 0.090, p = 0.0024$) and the control group ($\beta = 0.297, SE = 0.086, p = 0.0006$). There were no significant differences in the aggression variable, but total aggression increased slightly in the control group. Only the intervention group presented a significant reduction in the difficulty in social skills ($\beta = 0.514, SE = 0.231, p = 0.026$). Peer acceptance increased in the intervention group and decreased in the control group, but not significantly so. The indication of few friends decreased, not significantly, in the intervention and control groups, but not significantly so. Sympathy increased for both groups, although not significantly.

Table 1 – Comparison of the groups (intervention and control) in relation to the time (pre-test and follow up), via the Poisson regression model, Ribeirão Preto, São Paulo, Brazil

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention (n = 38)</th>
<th>Control (n = 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Follow up</td>
</tr>
<tr>
<td>Physical victimization</td>
<td>5.38(2.23)</td>
<td>4.62(2.67)</td>
</tr>
<tr>
<td>Verbal victimization</td>
<td>11.95(2.33)</td>
<td>9.15(4.01)**</td>
</tr>
<tr>
<td>Relational victimization</td>
<td>9.30(2.40)</td>
<td>7.08(3.17)**</td>
</tr>
<tr>
<td>Total aggression</td>
<td>20.50(5.38)</td>
<td>20.50(6.86)</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>5.23(2.02)</td>
<td>5.77(1.82)</td>
</tr>
<tr>
<td>Verbal aggression</td>
<td>7.15(2.26)</td>
<td>7.96(3.22)</td>
</tr>
<tr>
<td>Relational aggression</td>
<td>8.18(2.91)</td>
<td>7.27(3.17)</td>
</tr>
<tr>
<td>Difficulty in social skills</td>
<td>1.95(1.06)</td>
<td>1.23(1.18)*</td>
</tr>
<tr>
<td>Social acceptance</td>
<td>4.83(3.57)</td>
<td>5.70(4.14)</td>
</tr>
<tr>
<td>Few friends</td>
<td>1.03(1.39)</td>
<td>0.44(1.05)</td>
</tr>
<tr>
<td>Conflict resolution</td>
<td>0.48(0.85)</td>
<td>0.89(1.25)</td>
</tr>
<tr>
<td>Sympathy</td>
<td>0.90(1.37)</td>
<td>0.85(1.06)</td>
</tr>
</tbody>
</table>

Note: Data presented by means (standard deviation); * = $p<0.05$; ** = $p<0.01$.

**DISCUSSION**

The objective of this study was to verify if the improvement of social skills reduced bullying victimization in 6th grade students 12 months after an intervention. The results demonstrated that the intervention achieved its goal by significantly reducing the difficulty the victims of bullying had in social skills, a result maintained one year after the intervention. This means that the participants started acting with more politeness, empathy and emotional self-control and could solve interpersonal problems with their peers in a non-violent way, which is essential for making friendships. They also presented an increase in social support and in the capacity to defend themselves from aggressions\(^{10,14}\).

Learning assertive coping strategies and a better emotional control can interrupt the cycle of aggression and, thus, increase the quality of social interactions and of the victims’ life\(^{17}\). This empowerment, related to the improvement of skills that reduce the vulnerability to bullying, also indicates that they will be able to effectively deal with similar situations throughout life. This aspect is important because studies indicate that the lack of social skills can remain unchanged over time and lead to low self-esteem, anxiety, shyness and passivity, characteristics that predispose students to victimization and compromise their healthy development\(^{12,28,29}\).

Despite the improvement in social skills acquired by the victims participating in this study, victimization was significantly reduced in both groups (intervention and control), suggesting that other variables, not related to social skills, may have influenced the groups and collaborated to reduce this factor in the participants’ experience. One possible explanation is that the pre-test was performed at the beginning of the school year, during the transition period. Thus, the victimization may have occurred because of the numerous challenges faced by students when making new friendships and adapting to the new school organization\(^{20,21}\). The follow-up evaluation occurred one year later, long enough for students to be more accommodated, to have friendships, and consequently to have fewer situations of violence among their social interactions.

The same explanation, however, does not apply to the variable aggression, which did not show variation in the intervention group and did not significantly increase in the control group. When the victims respond passively to the aggressions suffered (with submission and easy crying, for example), it can reinforce the aggressions by signaling to the bully that they obtained success with their actions\(^{10}\). However, responding aggressively can also increase the frequency of bullying over time\(^{31}\). The increase in aggression in the control group suggests that this factor may be used as a form of self-defense or conflict resolution. Thus, the best outcome in the intervention group may be related to the improvement in social skills and not to unknown variables, such as victimization. The result of the control group may also have occurred because of students’ strive for greater social status or acceptance. Increased concern with social status may encourage aggression as a form of self-assertion and search for popularity\(^{30}\).

The data presented are an interesting result because, even though students bully their colleagues, they also had greater peer acceptance. A similar result was presented in another study in which aggression by boys contributed to greater peer acceptance\(^{33}\). This may occur in contexts in which violence is considered normative in the peer group or promoter of higher social status for the bullies.

Peer acceptance also increased in the intervention group and the indication of having few friends decreased. There was no significant difference; however, the results show improvements in the social position of the victims in the perception of
the peers. The interaction between students not involved and victims during the sessions may have contributed to increase the participants’ peer network. Since social isolation can increase vulnerability to bullying\(^1\), every positive result should be valued. It is not possible to attribute the reduction of victimization to the intervention, however, other results attest to the success of the study, such as a significant improvement in social skills and a tendency towards improvement in peer acceptance and reduction in the indication of few friends.

Limitations of the study

The present study has some limitations. Firstly, the instrument used to collect data on bullying does not assess situations of cyber bullying, a type of aggression that has increased due to the wider access to the Internet among students and the greater anonymity that this aggressive practice provides\(^3\). The allocation of the participants in the intervention and control groups occurred by classroom and not by school. It would be more appropriate to distribute the schools, not the classrooms, between the groups, in order to avoid the possibility of the participants in the intervention commenting about the program with colleagues who were in the control group in the same school, but different classrooms. Future research may overcome such limitations by separating intervention and control groups by school and by using instruments that also include cyber bullying in order to assess the occurrence of aggressions through aggressive or vexatious messages disseminated through cell phones, e-mail, social networks or web pages.

Contributions to the area of Nursing and Health

For the nursing area, the study addresses a theme that has not yet been explored in the nurses’ practice and in professional practice scenarios\(^4\). A recent study shows that the performance of Primary Health Care (PHC) professionals in the area of violence against children and adolescents in articulated and intersectoral actions is still a challenge\(^5\). As a result, models addressing potentialities and focusing on health promotion, as an alternative to preventive models focused on problems and diseases, can be essential and coherent to health care and nursing. Nursing professionals are indispensable in this debate, due to their privileged space among the healthcare teams, especially in PHC. Social skills can be associated with Nursing Theories to design systematized assistance for children and adolescents, with actions that foster empowerment and youth protagonism.

This study also provides information to stimulate healthcare teams to reflect upon the importance of adopting active and participative methodologies to favor the development of social skills in bullying victims and to provide care to families when listening and dealing with this issue\(^6\). There are also data that can support intersectoral health teams in the development of practices for preventing and dealing with bullying, in line, for example, with the principles of the School Health Program\(^7\), which encourages primary care in the country to develop education and health promotion actions to prevent violence and bullying and to stimulate a peace culture in schools\(^8\).

CONCLUSION

The significant reduction in the difficulty in social skills persisted over time, demonstrating the success of the intervention in relation to this variable, which is an important aspect in the interaction between peers, especially in periods of school transition. Thus, social skills can be the basis for intersectoral interventions in the area of health, aimed at favoring the empowerment of bullying victims by improving their interactions and quality of life in school. On the other hand, since the significant reduction of victimization in the investigated sample could not be attributed exclusively to the improvement in social skills, despite the greater reduction in the intervention group, other intervention models should be tested in the Brazilian reality, aiming to identify the most effective variables related to bullying victimization.

FUNDING

The present study was funded by the São Paulo Research Foundation (FAPESP), Grant 2013/22361-5 and Grant 2015/01794-6.

REFERENCES


