The Effectiveness of the Peer Mediation Model on Empowering Primary School Students in Conflict Resolution

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Abstract: Objective: This study examined the effectiveness of Conflict Resolution and Peer Mediation (CRPM) training on empowering 10-11-year-old primary school students in resolving interpersonal conflicts during 2011-2012 in Tehran (Iran). **Participants and methods:** The participants were fourth- and fifth graders from a mid-socioeconomic status school. A quasi-experimental design was used. The experimental group was consisted of 122 students and the control group included 153 students. All the fourth and fifth graders in the experimental group received training. Report forms were filled by both groups before and after training. **Results:** After the intervention 152 conflicts were reported by students in the experimental group. Out of which, 125 (82.2%) resulted in wise-agreement (win-win) and 27 (17.8%) resulted in no mutual agreement. **Conclusion:** Results of this study indicated that CRPM training was an effective strategy in empowering primary school students associated with interpersonal conflicts resolution.

Introduction

Interpersonal conflict is an integral part of school life in which students come from different cultures and values (Güneri & Coban, 2004) which if resolved in a constructive way can stimulate formative change and transformation (Baginsky, 2004). Moreover, the majority of students do not have sufficient skills and knowledge to resolve conflicts constructively (D. W. Johnson, Johnson, & Dudley, 1992). Destructive ways of managing conflicts in schools may have several negative consequences; teachers spend their teaching time and energy on dealing with students' conflicts (Lane & McWhirter, 1992). This may play a considerable role in the teachers' burnout (Burke, Greenglass, & Schwarzer, 1996). Also, it may lead to defective communication with other students (Dodge, 1983; D. W. Johnson & Johnson, 1996). Finally, it may lead to escalation in levels of school violence (Hart & Gunty, 1997).

Conflict resolution, as an important component of peace education programs, increases the ability to resolve conflicts as social skills. These programs teach children how to peacefully communicate with anyone through a proactive approach and response to conflicts in a creative and nonviolent manner (Clayton, Ballif-Spanvill, & Hunsaker, 2001). Peer mediation is a restorative method of conflict resolution in which a neutral third party helps disputants solve their problems to achieve a mutual agreement (Thomas, 2008). Teaching students conflict resolution skills empowers them to resolve their problems without external authority and intervention (Gauley, 2006). Peer mediation provides a condition in which children play an active role in decision-making. It equips them to be responsible citizens (Baginsky, 2004). Different approaches to peer mediation programs have been debated. Johnson et al. (1996) classified the peer mediation programs into the "cadre approach" and the "student body approach". In the cadre approach, a group of students are trained as mediators to help. In the students body approach, all students (or class) are trained for mediation and help others in turns (Bell, Coleman, Anderson, Whelan, & Wilder, 2000; D. W. Johnson & Johnson, 1996). Burrel et al. (2003) argue that through the skills which students learn from being trained by conflict resolution, they can understand the nature of conflicts and can better manage their interpersonal skills (Burrell, Zirbel, & Allen, 2003). On the other hand, the peer mediation program provides an atmosphere that can improve the school climate and culture (Lane & McWhirter, 1992) and develop communication and cooperative works (Opffer, 1997).

Various studies have examined the effectiveness of Conflict Resolution and Peer Mediation (CRPM) training program. A meta-analysis of peer mediation research by Burrell demonstrates success of this program, 4028 out of

4327 (93%) mediation sessions resulted in wise agreement(Burrell, et al., 2003). According to Bell study (2000), 32 out of 34 mediations resulted in mutual agreement, which indicates success of peer mediation program in a low-socioeconomic (SES) primary school (Bell, et al., 2000). Johnson et.al (2001) indicates that the interpersonal conflicts among students which were brought to peer mediators, resulted in 100% mutual agreement (D. W. Johnson & Johnson, 2001). The effectiveness of this program was shown in the Turkish primary school context which resulted in 98.9% agreement (Turnuklu, et al., 2009).

Peace education program studies in Iran are mainly restricted to analysing the concept and components of peace in (school) books or the investigation of stakeholders' and educationalists' view about the degree of focus on "peace education" in school curricula (Fathi-Vajargah.K & Eslami.M, 2008; Mirhosseini.Z & Taraghikhah-Deylamghani.N, 2009; Salehi-Omran.E, Izadi.S, & Rezaei.F, 2009). The majority of school-age children are unfamiliar with conflict resolution (D. W. Johnson, et al., 1992), and the lack of interpersonal conflict management usually leads to violence. Given the necessity of the peer mediation program and its positive effect on empowering students regarding conflict resolution skills, this study examined the effectiveness of CRPM training in empowering 10-11-year-old primary school students in resolving interpersonal conflicts in Tehran, Iran.

Methods
Study Participants and Setting:

This study was conducted among 275 primary school boys in Tehran, Iran, during 2011-2012. Following the approval of the Ministry of Education in Tehran, two schools were selected randomly. Selected two mid-SES school boys volunteered to participate in this study, including a total sample of 275 students (122 experiment/153 control group). Different approaches for mediators' training have been debated; the "cadre approach" and the "student body approach". In the cadre approach, a group of students as mediators are trained to help other students, and in the students body approach, all students (or the class) are trained as a mediator to help others in turns (Bell, et al., 2000; D. W. Johnson & Johnson, 2001). In this study, training of mediators was based on the "student body approach". All fourth and fifth graders (10-11 year olds) participated in this program. Students in the experimental group received conflict resolution and CRPM training. Taking in to consideration that the program was also introduced to students in other grades.

Study Instrument and Measurement
Report form:

A data collection form was designed according to literature by researchers in the present study. This form included 6 open-ended questions as follows: the students' grade, the number of conflicts in students, the number of disputants, nature of conflicts, people who disputants received help from, and the result of negotiation. Content validity was tested through a pilot study on 20 students in fourth and fifth grades. The aim of this pilot study was to estimate whether students understood the questions and if they were appropriate for them. According to students' comments, did not exist any incomprehensible question in designed form. The forms were filled out by both groups before and after intervention. Students reported their conflicts which had happened within the last three weeks. Data was analysed based on Johnson`s approach (D. W. Johnson, et al., 1996). In this approach, content analysis was done according to the written input of the pupils. All forms were read to obtain an orientation of its contents and categorize the responses. Related categories were integrated into more generic categories (nature of conflicts). Responses of students were coded into categories by researchers. Responses in 50 forms were coded by researchers twice (with a one week interval). Coding results demonstrated 90.7% reliability. The independent variable was CRPM training'. The dependent variable was the number of conflicts in which mediators could help disputants achieve win-win solutions.

Procedures:

The CRPM program was carried out on the experimental group during the 2011-2012 academic year, beginning in October, for two hours a week. Training took 16 hours (two hours a week) due to time limitation. The following skills were covered in this period of time: anger management (five hours), communication skills (five hours), and perception of the nature of conflicts and conflict resolution skills (6 hours). Anger management focused on expressing and recognizing one's emotions, understanding others' emotions, understanding the nature of anger, self-control, anger management and appropriate reaction to others' anger. Communication skills encompassed self-expression, active listening, respect to differences, body language and team working. Perception related to nature of conflicts and conflict resolution skills included perception of the sources of conflicts, understanding the type of conflict, learning conflict resolution techniques and peer mediation skills. Students learned to calm disputants, making sure that disputants welcomed mediation voluntarily, allowing them to express their emotions and reasons-using active listening methods, and facilitating the negotiation process to achieve win-win solutions.

Disputants should express their feelings and reasons, generating solutions for resolving the conflict to reach a wise-agreement (win-win).

Educational methods and materials for this program consists of MDM`s lessons (Million Dollar Machine) and interactive child-parent worksheets, posters, story books, educational games, and role-play activities for more practice. After training, the peer mediation model was implemented for three months in the experimental group.

Following the "student body approach", all the students in fourth- and fifth grade (122) were trained in the CRPM program, and after training all students served as peer mediators in rotation. Every week 12 students from 4 classes served as peer mediators (3 students from each class). Peer-mediators mediated other students for one week. After win-win agreement between disputants, mediators offered a 'peace treaty'. If an agreement was reached they would sign the 'peace treaty' and shake hands. Four meetings were held for parents, teachers, school authorities and non-teaching staff to achieve a setting approach as well.

Statistical Analyses:

Data were analyzed by SPSS software package. Chi-Square test was used for comparing frequencies, and P<0.05 was considered significant.

Results:

According to the result of present study, before intervention, the number of conflicts among the students in the control and experiment groups were 188 and 210, respectively. As shown in table 1, the control group's strategies for conflict resolution were as follows; 21.8%, 51.6%, and 26.6% had asked for help from friends, authorities, and no one, respectively. Among the reported interpersonal conflicts among students in the experiment group: 22.9% of them had asked for help from friends,

36.6% from school authorities and 40.5% from no one.

Five months after the intervention, the status of interpersonal conflicts among students in the two groups was examined. The control and experiment groups reported 197 and 152 cases of conflict during 3 weeks, respectively (table 2). No significant difference was observed in the number of interpersonal conflicts in the control group before and after intervention (p=0.64). However, in the experimental group 63.2%, 7.2%, 5.9% and 23.7% had help from mediators, friends, school authorities, and no-one, respectively. χ^2 showed a significant difference before and after the intervention in this group (p<0.001).

According to table 2, the greatest conflict results in the control and experiment groups were non-constructive win-lose results; 37.8% and 46.7% before and after the intervention. After the intervention, in the control group the win-lose results had the highest percentage, and there was no significant difference before and after the intervention in the conflict results (p=0.09). However, in the experiment group the win-win results had changed from 24.4% to 82.2%, and Chi² too showed a significant difference (p<0.001).

The comparison of the types of conflicts is presented in Table 3. The types of conflicts were categorized under five separate headings for both groups during three weeks. Physical aggression, verbal aggression and conflict of interests were the most common types of conflict among participants before and after the intervention. Communication conflicts and non-verbal aggression were not common in both groups as well. No significant difference was observed in the types of conflicts between the control (P =0.61) and experimental group (P=0.28) before and after the intervention.

Table 1: The strategy of confrontation with conflicts in both groups before and after intervention

Help taken from		Control group		Experimental group	
		Before	After	Before	After
	No- one	50 26.6%	50 25.4%	85 40.5%	36 23.7%
	Friends	41 21.8%	51 25.9%	48 22.9%	11 7.2%
	Educational authorities	97 51.6%	96 48.7%	77 36.6%	9 5.9%
	Mediators	0 .0%	0 .0%	0 .0%	96 63.2%
	Total	188 100.0%	197 100.0%	210 100.0%	152 100.0%

Table 2: The percentage of conflict resolution results in both groups before and after intervention					
		Control Group		Experimental Group	
		Before	After	Before	After
	Win-Win	60 31.9%	63 32.0%	52 24.8%	125 82.2%
	Win-Lose	71 37.8%	92 46.7%	83 39.5%	17 11.2%
	Lose-lose	57 30.3%	42 21.3%	75 35.7%	10 6.6%
	Total	188 100.0%	197 100.0%	210 100.0%	152 100.0%

Table 3: The percentage of reported conflict types in both groups before and after intervention				
	Control Group		Experimental Group	
	Before	After	Before	After
Conflict of interests	44 23.4%	41 20.8%	75 35.7%	42 27.6%
Physical aggression	70 37.2%	75 38.1%	58 27.6%	49 32.2%
Verbal aggression	52 27.7%	48 24.4%	56 26.7%	39 25.7%
Non-verbal aggression	3 1.6%	3 1.5%	1 .5%	0 .0%
Communication conflicts	19 10.1%	30 15.2%	20 9.5%	22 14.5%
Total	188 100.0%	197 100.0%	210 100.0%	152 100.0%

Discussion

Before the intervention, the majority of the students in both groups reported to have referred to educational authorities for solving their conflicts. It is considering that wise-agreement was 31.9% and 24.8% in the control and the experiment group before intervention, respectively. After training, the experiment group referred 63.2% of their conflicts to mediators and also wise-agreement (win-win) increased from 24.8% to 82.2% in this group. By establishing the whole body student approach and maintaining power balance among pupils by choosing mediators in turn and building a supportive and participatory climate at school, pupils were able to trust the program. Subsequently, most of them referred to mediators for their conflict resolution. Similar findings were observed in the earlier studies. According to literature, the majority of primary school pupils used destructive conflict resolution techniques (D. W. Johnson, Johnson, Dudley, & Acikgoz, 1994; R. T. Johnson & Johnson, 2002). Theberge et al. (2004) explained that students may choose several strategies for resolving their conflicts, by referring to their friends or teachers without asking for peer mediators' help. School climate and rules may affect pupils' attitudes about asking for help from mediators (Theberge & Karan, 2004).

Following the intervention, wise-agreement (win-win) increased in the experimental group (24.8% to 82.2%). In other words, students were able to counter their conflicts peacefully and reach a mutual agreement. One of the goals of the peer mediation program is empowering students to solve their conflicts and arrive at a 'win-win' solution instead of a 'win-lose' one, satisfying both individuals (Peterson & Skiba, 2000). A win-win solution indicates that disputants have met their needs (La Farge, 1992; Utas Carlsson, 1999). A 'win-win' solution means the satisfaction of all parties involved in the conflict is fulfilled; so both sides win, instead of one party having an advantage over the other (Pyles, 2005; Sebenius, 1992). Fischer et al. (1981) claim that principled negotiation focuses on basic interests, is mutually satisfying and offers fair options, typically resulting in a wise agreement (Fischer, Ury, & Patton, 1981). Ayas et al. (2010) argue that parties who adopt wise agreement (win-win) change the conflict process from the win-lose approach to the win-win approach or from a destructive manner to a constructive one (Ayas, Deniz, Kağan, & Kenç, 2010). In a conducted study reported that 83% of students who had participated in peer mediation program were able to suggest a "win-win" solution to conflict situation, whereas 86%

students who had not participated recommended a "win-lose" solution (Dummer, 2010).

In this study, empowerment of student in peer mediation was seen five months after beginning the intervention. Johnson et al. (1994) indicates that students were empowered to using learned skills four months after training (D. W. Johnson, et al., 1994). Furthermore, Smith et al. (2002) stated that resolved conflicts by peer mediators indicate a 90-100% rate of success three months (or more) after the program's implementation (Smith, Daunic, Miller, & Robinson, 2002). Therefore, by using the 'student body approach', safe environment can be established at school by involving different interests, empowering students within a supportive environment and teaching conflict resolution skills.

The result showed that 85.5% of conflicts were related to physical, verbal aggression and conflict of interests in the experiment group. On the other hand, these three categories were predominated among pupils in the control group (83.3%). Communication conflicts and non-verbal aggression were not common in groups. Similar findings were observed in other cultures. Several types of conflicts occur among pupils in the primary school settings. Johnson and Johnson (1994) explained that types of occurred conflicts among primary school pupils included physical aggression (fighting), playground conflicts, conflicts regarding personal belongings, turn-taking conflicts, insults and academic-related conflicts (D. W. Johnson, et al., 1994). Turnuklu et al. (2009) reported that 65% of all conflicts were related to physical, verbal and non-verbal aggression. While 1% of conflicts were related to non-verbal (gesture) aggression (Turnuklu, et al., 2009). Theberge et al. (2004) stated that rumors and name-calling were reported sources of conflicts among junior high students (Theberge & Karan, 2004). Moreover, according to Turnuklu et al. (2002) abusive language and fighting were the most observed conflicts among primary school pupils (Türnüklü & Şahin, 2002).

Through building a safe and peaceful climate at school, children may practice how to be more tolerant to other cultures and social differences. However, all the non-teaching staff and education authorities in the school may be dedicated to the program. Creating a supportive and participatory environment in schools based on peace and empowerment may encourage students towards safe behaviors. It is concluded that empowering primary school children had several benefits for developing a culture of peace in the world.

Limitations of the study

According to the curriculum of primary schools in Iran, the training program was restricted to 16 hours only (two hours in week). However, our study was the first peace education and conflict resolution research in Iran, only few schools in 6th municipality district of Tehran (particularly girls' schools) volunteered to participate in this program.

Conclusions

The findings of this study had several implications. The peer mediation model can be used in different cultures to empowering students to conflict resolution. According to our results, by empowering pupils in peer mediation, children can better manage their conflicts peacefully. This comprehensive plan should be integrated into the school's planning process. By establishing environments in which pupils feel valued, safe and responsible for their job they can be empowered in peer mediation. This process can be start with providing a team who work together to develop and improve a comprehensive mediation program. This team can includes pupils, parents, health promoters, teaching staff, non-teaching staff, and the school principal (stakeholders) to establish and maintain a peaceful school.

Future studies

The peer mediation programs in girls' primary schools should be implemented and also should be conducted on children from different SES levels, different grades and different cultures in Iran.

Acknowledgements

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