

Empowering Students Against Bullying and Cyberbullying: Evaluation of an Italian Peer-led Model

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Empowering Students Against Bullying and Cyberbullying: Evaluation of an Italian Peer-led Model

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An investigation of whether and to what extent a peer-led model is able to counteract mechanisms underlying bullying in peer groups, seeking clarification of divergence in reported results on the efficacy of peer-led models. Two studies were carried out in Italy within a project tackling bullying and cyberbullying in secondary schools. In the first study (n= 386), concerning the first phase of the project, a significant decrease was found only for cyberbullying, most of all for male peer educators. For the second study (n= 375) the model was improved and significant effects were found for several participating groups (peer educators and the experimental classes), who exhibited a decrease in bullying, victimization, and cybervictimization. Results suggest that peer educators can act as agents of change in the broader context.

School bullying has become a global problem in Western society, with potentially high social costs. Relevant percentages of primary and secondary school students are involved in peer-to-peer bullying as perpetrators or victims or both. Along with traditional types, a new form of bullying has appeared: cyberbullying, defined as bullying perpetrated by the use of electronic devices (Smith et al. 2008; Menesini, Nocentini, and Calussi 2011). In a recent Italian survey of a nation-wide sample of adolescents aged 12–18 years, 25.2 percent reported experiencing face-to-face bullying and 10 percent cyberbullying (Eurispes 2011).

Bullying is associated with externalizing behaviors, while being victimized causes psychological distress, low self-esteem, depression, anxiety, and psychosomatic symptoms (Arsenault, Bowes, and Shakoor 2010; Menesini, Modena, and Tani 2009; Ttofi et al. 2011; Veenstra et al. 2010). School bullying has also a negative impact on bystanders and on other children not involved in bullying problems (Gini et al. 2008).

Given these findings, the need for intervention to limit the harm caused by bullying is clear and urgent. The question is how to intervene: what are the psychological mechanisms underlying bullying attacks? What anti-bullying interventions are effective, and to what extent?

We know that bullies are usually motivated to gain dominance within the group (Pellegrini 2002; Salmivalli and Peets 2008), but we do not know why they are not stopped by the rest of the class. Several mechanisms explain bystanders' (non-)reactions. One is diffusion of responsibility: when an event occurs in front of a group of persons each individual feels less responsible (Salmivalli 2010). Other reasons include it being easier to be on the side of the bullies, as the dominant group in the class, and the attitudes of the majority of the class often influencing the bystanders' behavior (Gini et al. 2008).

In relation to victimization, Holt and Espelage (2007) find that moderate levels of peer support can reduce levels of

The authors wish to thank the Province of Lucca for its financial support for the project and the schools, teachers, and students for their collaboration. anxiety and depression in victims. Flashpohler et al. (2009) find that perceived peer social support moderates the relationship between victimization and quality of life to a greater extent than teacher social support. Literature on victim support and on the bystanders' role underlines the value of involving the group and specifically uninvolved children (the so-called "silent majority") to change the dynamics of bullying and to stop negative behaviors (Menesini et al. 2003; Salmivalli 2010).

The "peer education" and "peer support actions" approaches focus on peer involvement (Cowie and Wallace 2000; Shiner 1999). These two models are both based on the assumption that peers learn from and have significant influence on each other, and that norms and behaviors are most likely to change when liked and trusted group members take the lead (Shiner 1999; Turner and Shepherd 1999). Peer-led models grow out of the spontaneous willingness of children and adolescents to help one another and create roles and structures where students, on the role, can be trained and helped to act in a responsible, sensitive, and empathic way towards other pupils. These programs can enhance active citizenship and prosocial behavior among pupils (Cowie and Wallace 2000; Naylor and Cowie 1999). Several studies support the effectiveness of peer education and peer support action in reducing bullying behavior and pro-bullying attitudes (Menesini et al. 2003), increasing support for victims (Houlston, Smith, and Jessel 2011), and generating possible benefits for peer supporters and schools in general (Cowie et al. 2002; Maticka-Tyndale and Barnett 2010; Naylor and Cowie 1999).

Recent meta-analyses show that on average bullying can be reduced by 20–23 percent and victimization by 20 percent in intervention schools compared with control schools (Ttofi and Farrington 2009). Findings on the effectiveness of peer support and peer mediation in schools are more controversial. A first meta-analysis found working with peers to be effective, particularly for reducing victimization (Ttofi and Farrington 2009), whereas a more recent paper (Ttofi and Farrington 2011) reports it as having a negative effect on bullying reduction.

The presents study aims to: 1) contribute to the literature in relation to the contradictory results on peer-led models;

2) understand whether and to what extent a peer-led model against bullying and cyberbullying applied in Italy is able to counteract some of the mechanisms underlying bullying in peer groups. We report results from two studies carried out in Italy within an ongoing project tackling bullying and cyberbullying in secondary schools. Although certain elements of rigorous program evaluation are lacking, the findings are nonetheless relevant to understanding the role of particular mechanisms and program components.

1. Study 1: Noncadiamointrappola Phase One

The web-based Noncadiamointrappola (Let's not fall into a trap) project was launched in 2008. It involved students from two schools in designing and developing a website to promote peer-to-peer content against bullying and cyberbullying. More schools became involved during the following school year (2009–2010). The present study examines the following stages between December 2009 and June 2010 (Menesini, Calussi, and Nocentini 2012):

- Initial evaluation (December 2009): questionnaires administered to the experimental and control groups (T1).
- Launch of the project and awareness-raising. Presentation of the project to the participating schools and classes to raise awareness and generate communication on issues related to cyberbullying and bullying.
- Selection of four on-line peer educators and four faceto-face peer educators in each participating class.
- Training day for peer-educators (eight hours), focused on communication skills, problem-solving, and social skills in real and virtual interactions.
- Intervention by online educators in the Noncadiamointrappola forum through a rotation schedule where each educator worked for a period of two weeks, each day controlling the forum posting new threads, answering questions posted by users, moderating discussions.
- Intervention by face-to-face peer educators. In particular, 1) conducting an awareness meeting on bullying and cyberbullying with a school class that had not participated in the previous steps; 2) participating in a meeting with local administrators, police, etc., to ask for

specific help making life safer in their city; 3) preparing a TV program about bullying and cyberbullying for a local network.

• Final evaluation (June 2010): the initial questionnaire was re-administered to evaluate the outcome (T2).

The present study evaluates the effectiveness of the intervention, comparing the peer educators, the awareness group, and the control group.

1.1. Methodology

The sample comprised 386 adolescents (62 percent females) enrolled in 9th to 13th grade at eight high schools in Tuscany, Italy. The age of participants ranged from 14 to 20 years (mean 16.29; SD=1.29). The schools were selected using a self-selection process and the classes were selected by the school staff. The consent procedure consisted of formal approval by the schools and consent by the parents. Overall 236 adolescents were included in the analyses on the basis of complete data at T1 and T2 (62 percent of the sample). Participants who dropped out of the study did not differ from those who remained with regard to the initial study variables. The sample was divided into three groups based on level of involvement in the intervention: 1) the control group (students who did not receive any kind of intervention: N=47); 2) experimental group 1 (awareness) (students who received only an intervention based on raising awareness of cyberbullying; N= 126); 3) experimental group 2 (peer educators) (students who were highly involved, took part in training, and worked actively in the real or virtual community; N= 63).

1.2. Measures

Bullying and Victimization

Bullying and victimization scales were used (Menesini, Calussi, and Nocentini 2012). Each scale consists of eleven items, asking how often respondents had experienced particular behaviors as perpetrator or victim during the past couple of months. Each item was evaluated on a 5-point scale from "never" to "several times a week." Alpha coefficients at T1 and T2 were .80 and .80 for bullying and .59 and .69 for victimization. Although victimization showed low levels, the reliability of the victimization scale is confirmed by previous studies (see Menesini et al. 2012).

Cyberbullying and Cybervictimization

A revised version of the cyberbullying scale described by Menesini, Nocentini, and Calussi (2011) was used. It consists of two scales, one for perpetration and one for victimization. Each scale consists of eighteen items, asking how often respondents had experienced particular behaviors during the past couple of months. Each item was evaluated on a 5-point scale from "never" to "several times a week." Alpha coefficients at T1 and T2 were .67 and .75 for cyberbullying and .72 and .84 for cybervictimization.

1.3. Results of the First Study

A series of mixed repeated measures ANOVAs analyses were carried out in order to evaluate the effect of time on bullying, victimization, cyberbullying, and cybervictimization across the three groups (peer educators, awareness, and control), controlling for gender. For cyberbullying, results showed a significant effect of time $(F_{(4, 228)} = 7.64; p < .001; \eta^2_p = .03)$, and a significant interaction of time*group $(F_{(4,228)} = 3.408; p < .05; \eta^2_p = .02)$ and of time*group*gender ($F_{(4,288)} = 3.039$; p<.05; $\eta^2_p =$.02). The main time effect is that the mean for cyberbullying decreases significantly from T1 to T2 (Figure 1). However, interaction effects reveal that this decrease varies across groups and gender. As Figure 2 shows, a significant decrease over time was found only for peer educators, and in particular male peer educators (respectively $F_{(2,63)} = 4.277$; p<.05; $\eta^2_p = .07$ and $F_{(2,21)} = 5.251$; p<.05; $\eta_{p}^{2} = .25$). No other significant effect was found for bullying, victimization, or cybervictimization.



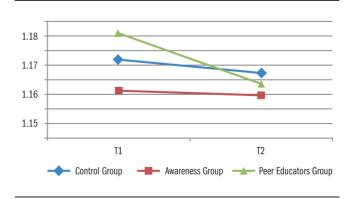
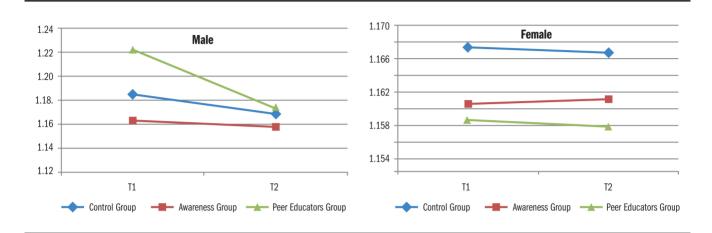


Figure 2: Change in cyberbullying over time by gender



1.4. Discussion

This first peer-led model produced more strongly positive effects for cyberbullying than for traditional bullying and stronger effects among male peer educators, who were the students involved in a very active and responsible role. The project was less effective for the other participants. This can be related to the type of intervention we carried out with these two groups: the peer educators' group worked more intensively, through the training and other tasks they were asked to fulfill. By comparison, the awareness group was less involved in the intervention and did not take part in an active process of empowerment. As an overall conclusion, the intervention showed some benefits but it was not so effective for the rest of the class, for victims, or for face-to-face bullying and victimization.

2. Study 2: Noncadiamointrappola Phase Two

Phase two of Noncadiamointrappola built on the initial results and sought to improve certain aspects of the model that were found to be underdeveloped in the first trial. Four elements were added:

- stronger attention to the victim's role and to support for the victims;
- · more efforts to involve the bystanders;
- greater involvement of subject teachers in order to improve action on face-to-face bullying. Face-to-face educators were supported by class teachers and adapted their intervention to school needs. Specifically they tried

- to involve the whole class and produced a short movie on cyberbullying, a guide for safer use of e-mail and social networks, and a poster against cyberbullying. In one school they ran a peer-to-peer counseling space.
- creation of a Facebook group to integrate the web forum: online peer educators posted photos, links, and video clips as facebook group administrators.

In order to evaluate the effects of Noncadiamointrappola phase two we analyzed data concerning bullying and cyberbullying in a before-after comparison of two groups: the control group (students who did not receive any kind of intervention) and the experimental group (all students attending classes participating in the project). In a second step, differences between peer educators and the other students of participant classes were analyzed: this last group comprised students who received the intervention provided by the trained peer educators within their class. This second study sought to evaluate the effectiveness of the intervention carried out by the peer educators by measuring the impact on the whole class. In particular, the question was: did the introduction of structured activities run by peer educators lead to change in the experimental classes as a whole? Were peer educators agents of change in these classes?

2.1. Methodology

The sample comprised 375 adolescents (males=20.3 percent), enrolled in 9th to 13th grade at four high schools in Tuscany. The experimental group composed 231 adoles-

cents (males = 15.4 percent; mean age = 16.80; SD = 1.92) attending ten classes at three high schools, and the control group comprised 144 adolescents (males = 20.8 percent; mean age = 15.15; SD = .90). Forty-two students from the experimental group were enrolled as peer educators (males = 23.8 percent). The schools were selected using a self-selection process and the classes were selected by the school staff. Self-report questionnaires were administered in class during school time by trained researchers (in December 2010 and May 2011). The consent procedure for research consisted of formal approval by the schools and consent by the parents. Participants who dropped out of the study represented 12 percent of the sample (N=55) and they did not differ from those who remained with regard to the initial study variables.

2.2. Measure

The same bullying and victimization scales and cyberbullying scales used in the first study were administered. Reliability coefficients at T1 and T2 were .75 and .82 for bullying, .74 and .71 for victimization, .79 and .82 for cyberbullying, and .80 and .87 for cybervictimization.

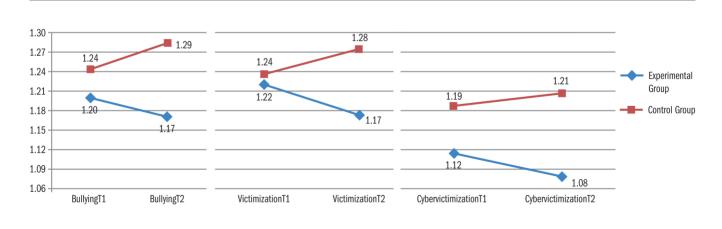
2.3. Results

2.3.1. Experimental vs Control group

Bullying and victimization: Repeated measures ANOVAs were conducted to evaluate the change in bullying and victimization over time in the two groups. Results showed no significant effect of time for both outcome measures but a significant interaction of time*group for bullying ($F_{(2,375)}=5.993$; p<.05; $\eta^2_p=.016$) and for victimization ($F_{(2,375)}=11.848$; p<.01; $\eta^2_p=.031$) (see Figure 3). For both dimensions, the experimental group showed a decrease across time as compared to the control group.

Cyberbullying and cybervictimization: Repeated measures ANOVAs were conducted on both variables. The results show a non-significant effect of time for both cyberbullying and cybervictimization, and a non-significant interaction of time*group for cyberbullying. For cybervictimization, a significant interaction of time*group was found ($F_{(2,375)} = 5.706$; p<.05; $\eta^2_p = .015$), showing a decrease over time in the experimental group as compared to the control group (see Figure 3).

Figure 3: Change in bullying, victimization, and cybervictimization over time in control group and experimental group

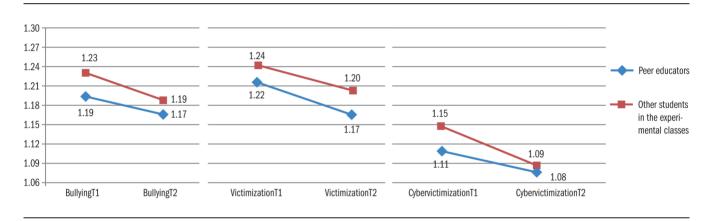


2.3.2 Peer Educators vs Other Students in Experimental Classes

Repeated measures ANOVAs were conducted to evaluate the effect of time on the dependent variable across the two groups (peer educators and other students in experimental classes). The results show: 1) for bullying an almost significant effect of time ($F_{(2,231)} = 3.453$; p = .06) and a non-significant interaction of time*group; 2) for victimization a significant effect of time ($F_{(2,231)} = 4.178$;

p<.05; $\eta_p^2=.018$) and a non-significant interaction of time*group; 3) for cybervictimization a significant effect of time ($F_{(2,231)}=8.919$; p<.01; $\eta_p^2=.037$) and a non significant interaction of time*group. These results show that the decrease across time in bullying, victimization, and cybervictimization was the same for both peer educators and the other students in experimental classes (see Figure 4).

Figure 4: Change in bullying, victimization, and cybervictimization over time for peer educators and other students in experimental classes



3. General Discussion

In the second study, the results show a significant pattern of decrease in bullying, victimization, and cybervictimization among peer educators and the other students in the experimental classes, as compared with the control group. Particularly, they highlight that Phase Two of Noncadiamointrappola is an effective approach to prevent and reduce bullying and cyberbullying among adolescents. It showed positive effects on the students involved (albeit the effect size is not very large), reducing bullying and cyberbullying in the whole class and not simply among peer educators. We can hypothesize that in this second study the peer educators had the capacity to act as agents of change, promoting a reduction of bullying and cyberbullying in the whole class.

The main effects applied to both victimization and cybervictimization, showing that greater attention to this side of the problem can help reduce the percentage of students victimized in the class. These approaches seem able to work directly on peer educators and indirectly on the whole group, through awareness processes and group dynamics.

It appears that the underlying mechanisms behind these positive results are the new elements introduced in Phase Two, particularly deeper involvement of school teachers and of the whole class, and greater attention to victim support. Overall we obtained greater involvement by the majority of students by providing more intervention opportunities in class and online (forum and Facebook interactions). These results suggest that within a peer-led model the type of roles peer educators take on is highly relevant. If they start a process of personal change but are unable to involve the other students in this process, this approach can have limited effects (see Study 1). But if they are supported in their capacity to promote initiatives and active participation by other students, the process of change can involve the entire class. In this regard, a class approach and the involvement of class teachers as practiced in the Italian model can be more promising than a school approach (Cowie and Wallace 2000).

Although these models highlight the importance of students' active involvement, it is crucial to promote adult in-

volvement and supervision in order to create space and time for student intervention. Finally, consideration should be devoted to cost-benefit evaluation of the peer-led model, given that this model usually has a low cost and can be highly profitable for schools and community.

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