

The Long-Term Effects of Coping Strategy Use in Victims of Bullying

Simon C. Hunter¹, Joaquin Mora-Merchan², and Rosario Ortega³

¹Strathclyde University

²University of Seville

³University of Cordoba

The ways in which children appraise and cope with school bullying are likely to influence the long-term outcomes experienced. To examine this possibility, 219 Spanish undergraduate students (73 male, 146 female) aged between 18 and 40, completed an adapted version of the Retrospective Bullying Questionnaire (RBQ; Schäfer et al., 2004) and a distress scale (Rivers, 1999). Results indicated that neither coping strategies reported by victims of bullying nor the match between control appraisal and coping strategy influenced levels of distress experienced as adults. Control, threat and challenge appraisals did, however, influence long-term distress. Explanations for these effects are discussed, and include the possibility that appraisals may directly influence levels of distress and the quality of emotions experienced by victims during the actual bullying episode. Active strategies were perceived by students to be effective in dealing with bullying, whereas those centered on avoiding the conflict, or which involved aggression, were considered ineffective.

Keywords: bullying, victimization, long-term consequences, coping, appraisal

La forma en que los niños afrontan y resuelven los problemas de malos tratos entre compañeros/as escolares influyen posiblemente en los efectos que éstos experimentan, a largo plazo. Para examinar esta posibilidad, hemos estudiado un grupo de 219 estudiantes universitarios españoles (73 chicos y 146 chicas) con edades comprendidas entre 18 y 40 años, mediante la aplicación de una versión adaptada del Retrospective Bullying Questionnaire (RBQ; Schäfer et al., 2004) y una escala de estrés (River, 1999). Los resultados indican que ni las estrategias de afrontamiento usadas espontáneamente por las víctimas, ni el control sobre ellas, ejercen influencia sobre el estrés experimentado en la edad adulta. Sin embargo, sí ejerce influencia sobre el estrés a largo plazo la valoración que el sujeto hace de la situación violenta, como un reto controlable o como una amenaza que no puede ser controlada. Se discuten posibles explicaciones, incluyendo la posibilidad de que tales valoraciones quizás ejerzan una influencia directa en el propio nivel de estrés, especialmente en el tono emocional experimentado por las víctimas durante los episodios de violencia. Las estrategias activas de afrontamiento son valoradas como efectivas por los estudiantes, mientras que las estrategias que niegan el conflicto o incluyen respuesta agresiva se consideraron poco eficaces.

Palabras clave: maltrato, victimización, efectos a largo plazo, afrontamiento, valoración

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Correspondence concerning this article should be addressed to Rosario Ortega, Departamento de Educación. Universidad de Córdoba. Av. San Alberto Magno, s/n. Campus Menéndez Pidal. 14004 Córdoba. E-mail: ortegarui@uco.es

Bullying is a social and interpersonal problem that involves the repeated, intentional use of aggression against a less powerful other (Whitney & Smith, 1993). Bullying can take different forms, be it direct (e.g., physical aggression), indirect (e.g., exclusion, spreading rumors), or verbal (e.g., name-calling). Prevalence studies, using self-report questionnaires, indicate that approximately 10% of Spanish children are involved in bully-victim problems as bullies, victims, or both over approximately a three month period (Defensor del Pueblo, 2000; Ortega & Angulo, 1998; Ortega & Lera, 2000; Ortega & Mora-Merchán, 1997, 1999).

Children who are victims of bullying are more likely than non-victims to experience problems such as depression, anxiety, and low self-esteem (Austin & Joseph, 1996; Craig, 1998; Stanley & Arora, 1998), and to engage in greater levels of suicidal ideation (Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Roland, 2002). In fact, effects of victimization can persist beyond the actual duration of the bullying episode (Kochenderfer & Ladd, 1996), and may endure into adulthood (Hugh-Jones & Smith, 1999; Matsui, Tsuzuki, Kakuyama, & Onglatco, 1996). These findings suggest that children who are victimized experience problems in coping with bullying, and that they may cope in ways that are maladaptive.

Research on bullying has previously used theoretical concepts such as social information processing (Schwartz, Dodge, Pettit, & Bates, 1997) and dynamic systems (Pepler, Craig, & O'Connell, 1999). However, when examining the way victims cope with the practical and emotional problems associated with bullying, process theories of stress and coping seem more appropriate (Lazarus & Folkman, 1984). These theories allow us to examine the way in which maladaptive coping patterns may evolve within the bully-victim relationship (Hunter & Boyle, 2004).

Within one of the most widely researched transactional coping theories (Lazarus & Folkman, 1984), coping is considered to have two goals: to regulate distressing emotions (emotion-focused coping) and to solve the problem that causes distress (problem-focused coping) (Folkman & Lazarus, 1985). Other theorists have also emphasized the importance of the distinction between approach and avoidance strategies, with the former focusing on the problem causing distress, and the latter designed as a form of escaping or distracting attention from the problem and not actually dealing with it (Roth & Cohen, 1986). Coping-strategy use is guided by the way the individual perceives, or appraises, the situation and appraisals are, in turn, divided into two categories: (a) *primary appraisal* and (b) *secondary appraisal*.

Primary appraisal refers to the meaning assigned to an event, and there are three separate classifications. In the appraisal of *harm* or *loss*, the coping priority is to deal with the repercussions of the situation. In contrast, an appraisal of *threat* involves anticipated harm or loss, and an appraisal of *challenge*, while equally involving anticipated harm or loss, emphasizes also the potential gains or rewards provided

by the situation (Lazarus & Launier, 1978). Secondary appraisal involves examination of one's coping resources and options, evaluation of their likelihood of success, and evaluation of one's ability to implement strategies (Lazarus & Folkman, 1984). Folkman (1984) stated that situational appraisals of control reflect secondary appraisal, as they refer to beliefs about one's ability to control a discrete event, and hence, reflect judgments about the degree to which one's resources match the problem at hand. Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen (1986) found that encounters appraised as modifiable were associated with problem-focused coping-strategy use, whereas those appraised as being out of one's personal control were associated with the use of avoidance strategies.

Fournet, Wilson, and Wallander (1998) suggested several important dimensions when examining the long-term outcomes of coping, including (a) match and (b) approach versus avoidance coping-strategy use.

Match. This dimension is equivalent to the concept of "goodness of fit" between appraisal and coping-strategy use (Folkman, Schaefer, & Lazarus, 1979), such that coping cannot be considered effective or ineffective independently of the context in which it is used. Thus, for example, use of coping strategies focused on changing the environment or changing oneself are thought to be most effective when the situation is appraised as modifiable, and less so when it is appraised as unable to be changed. The goodness-of-fit hypothesis has been confirmed in several adult samples (Folkman et al, 1986; Forsythe & Compas, 1987; Vitaliano, DeWolfe, Mainro, Russo, & Katon, 1990), although Pape and Arias (1995) failed to find support for it in a sample of female victims of partner violence. Compas, Malcarne, and Fondacaro (1988) reported that children and adolescents who showed a good fit reported fewer emotional and behavioral problems.

Fournet et al. (1998) found an *increase* in long-term, parent-reported behavior problems in adolescents displaying goodness of fit. They suggested that this effect might be due to the cultural expectations placed on females, so that better fit in females represents greater use of problem-focused coping strategies, which may be viewed as "inappropriate" female behavior. However, long-term consequences of goodness of fit have not been researched elsewhere, and therefore, the present study is of both theoretical and practical relevance.

Approach versus avoidance coping-strategy use. Approach strategies are expected to be associated with more adaptive coping competence (Fournet et al., 1998); problem-focused coping (an approach strategy) has been negatively correlated with depression in adults (Bruder-Mattson & Hovanitz, 1990; Vingerhoets & Van Heck, 1990; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985), and these findings have been replicated in adolescent samples (Dumont & Provost, 1999; Unger, Kipke, Simon, Johnson, Montgomery, & Iverson, 1998). In adults, less frequent use of avoidance

coping strategies was reported to predict less emotional and physical distress (Holahan & Moos, 1986), while more frequent use of escape or avoidance coping strategies was associated with depression and emotional distress (Aldwin & Revenson, 1987; Billings & Moos, 1984; Bruder-Mattson & Hovanitz, 1990). In adolescents, escape or avoidance coping strategies correlated positively with stress and negatively with self-esteem (Dumont & Provost, 1999).

When examining the outcomes of coping strategies used by victims of bullying, it is important that they are examined in respect to bullying *per se*, since strategies that are effective for young people in other contexts or situations may not be so when applied to bullying (Lazarus & Folkman, 1984). Several studies have examined outcomes of coping strategies used by pupils when dealing with bullying, and these have focused either on psychological/psychosocial outcomes (Cassidy & Taylor, 2001; Kochenderfer-Ladd & Skinner, 2002) or on whether or not the bullying is stopped by the coping strategy (Eslea, 2001; Kochenderfer & Ladd, 1997; Salmivalli, Kaukiainen, & Lagerspetz, 1996; Smith, Shu, & Madsen, 2001; Wilton, Craig, & Pepler, 2000).

Cassidy and Taylor (2001) examined the outcomes of coping-strategy use among adolescent victims of bullying between 12 and 16 years old. They used a self-report measure of coping that incorporated a number of different concepts to produce a problem-solving style score. Higher scores on this scale predicted lower levels of psychological distress, suggesting that a coping style that reflects a less helpless, more in control, more creative, more confident, more approaching and less avoiding style, is adaptive.

Kochenderfer-Ladd and Skinner (2002) examined how nine and ten year old children coped with "a problem with another kid at school". Among boys, greater use of problem-solving, and less use of social support, were associated with greater loneliness. Loneliness in girls, however, was positively associated with distancing. No coping strategies were associated with anxiety or depression among girls. However, for boys, there was an interaction between coping and victimization: Greater distancing and externalizing led to heightened depression and anxiety when there were high levels of victimization, but reduced levels of depression and anxiety when there were low levels of victimization.

Kochenderfer-Ladd and Skinner (2002) also examined teacher-rated social competencies. Boys' use of problem-solving strategies was inversely associated with social competencies. Frequently-victimized girls were most at risk for social competency problems when they showed high levels of internalizing and low levels of social support.

With regard to which strategies are most effective for stopping bullying, Eslea (2001) asked children aged 11 to 15 years about their strategy use and how effective each strategy was for stopping bullying. Different strategies were effective for different types of bullying. For example, *fighting back* was the most effective strategy to stop name-calling and threats, and was also fairly effective in stopping rumors

from being spread, theft, and physical aggression. *Ignoring people* was the most effective in response to theft, but was also fairly effective with respect to physical attacks, name-calling and rumors being spread. *Telling someone* was best for stopping physical aggression, though it was also quite effective for preventing the recurrence of theft, threatening behavior, name-calling and rumors being spread.

This pattern was also present in Salmivalli et al.'s (1996) study. These authors examined the ways in which individual strategies, used by 12 and 13 year-old victims, clustered together. They identified three main factors: helplessness coping, which included strategies such as *doing nothing*, *telling teacher* and *skipping school*; counter aggression coping, which included strategies such as *speaking up to the bully*, *bullying others* and *provoking the bully*; and nonchalance, which involved behaviors such as *remaining calm* and *pretending not to care*. Among boys, greater counter aggression coping was associated with less confidence that the bullying would stop. However, this factor clearly included a variety of behaviors, many of which were explicitly hostile and provocative, so that they could be expected to be unhelpful.

With respect to the nonchalance factor, more nonchalance was associated with greater confidence that the bullying would stop, though only among boys. It is unclear why this was only helpful for boys, though it may be partly explained by the different types of bullying experienced by boys and girls. For example, greater nonchalance and lesser counter aggression may be most effective for direct forms of bullying. If this is the case, boys may perceive these types of strategy to be more helpful as they are more often victims of direct bullying (Ahmad & Smith, 1994; Crick & Grotpeter, 1996; Green, Richardson, & Lago, 1996).

The helplessness coping factor identified by Salmivalli et al. (1996) was inversely associated with the likelihood that bullying would stop, though only among girls. Thus, it may be that these strategies are particularly unhelpful when dealing with indirect or verbal bullying, a type of bullying experienced more by girls than by boys (Bijttebier & Vertommen, 1998; Olweus, 1994; Whitney & Smith, 1993).

Smith et al. (2001) examined the associations between duration and frequency of bullying and strategies used. In a cross-sectional study of pupils aged 10 to 14 years, results indicated that *I fought back* and *I ignored them* were unrelated to either duration or frequency of bullying. *I ran away* was used more by the most frequently bullied children, and *I told them to stop*, *I asked an adult for help*, *I asked friends for help*, and *I cried* were all associated with more frequent and longer-lasting bullying. Although the greater use of such strategies by more seriously bullied pupils may indicate that they are ineffective, Smith et al. (2001) note that it is difficult to disentangle causes and effects in this data. Specifically, greater victimization may simply provide greater opportunity to use more strategies, or the same strategies more often.

Kochenderfer and Ladd (1997) examined a sample of younger children, aged between 4 and 6 years. Pupils self-reported their level of victimization in fall and spring of their kindergarten year; their use of coping strategies was peer-reported in the fall. Boys who reported being victimized at both data-collection points were significantly more likely to *fight back*, and were significantly less likely to *have a friend help*, compared to boys who were victimized only at the first data-collection point. Boys did not differ in their use of *cries*, *tells teacher*, *walks away* or *gives something up*. Girls who were bullied at both points and those who were bullied only at the first point did not differ in their use of any coping strategies.

One study that examined outcomes of coping strategies was an observational study carried out by Wilton et al. (2000). These authors observed 120 pupils from first to sixth grade during free play. The authors argued that the coping styles of victims of bullying, in response to bullying, could be characterized as either problem-solving strategies or aggressive strategies. The former were strategies such as *ignoring*, *acquiescing*, *avoiding*, and *instrumental coping*, and these de-escalated and helped resolve problems. In contrast, the second group of strategies, including *physical/verbal aggression* and *venting feelings*, appeared to perpetuate the problem.

The primary aim of this study is to examine the influence of different coping strategies used by victims of school bullying on adult distress. Given the research literature outlined above, it is expected that more assertive strategies, which reflect an approach orientation toward bullying, will predict lower levels of adult distress, whereas strategies that do not actively resolve the situation will predict higher levels of adult distress. Greater use of social support and less use of aggression are also expected to predict lower levels of distress.

A second aim of the present research is to examine the match between appraisal and coping, and its long-term outcomes among victims of bullying. We expect that victims who used coping strategies appropriate to their appraisal of the situation (i.e., showing goodness of fit) would show significantly less long-term distress than victims whose coping-strategy use did not match their appraisals.

Our third aim is to examine the perceptions of university students in regard to which coping strategies they believe were most effective in dealing with bullying in the past. Approach strategies are expected to be perceived as more effective than avoidance strategies.

Method

Participants

Undergraduate students from the University of Seville ($N = 219$, 73 male, 146 female) were recruited from five faculties (Psychology, $n = 61$; Media, $n = 50$; Chemistry, n

$= 22$; Economics, $n = 38$; and Architecture, $n = 48$). They were aged between 18 and 40 years ($M = 21.28$, $SD = 2.49$).

Measures

The *Retrospective Bullying Questionnaire* used was a modified version of the one developed by Schäfer et al. (2004). This questionnaire contains several sections, and has a total of 46 items. It begins by asking students about their experiences in bullying, including direct, indirect, and verbal bullying in primary school (nine items total), how long the bullying typically lasted, and what gender the aggressors were. This is followed by an identical section on experiences in secondary school.

Following these sections, there are more general questions related to bullying, including a section examining how participants recall coping with being bullied. Students were asked to indicate which strategies they used from a list of 10 possibilities ("I talked to the bullies," "I tried to make fun of it," "I tried to avoid the situation," "I tried to stay away from school," "I tried to ignore it," "I fought back," "I got help from friends," "I got help from a teacher," "I got help from family/parents," and "I did not really cope"). We added an item here asking students, "Which of the above strategies do you think was the most effective in coping with bullying?" Participants were permitted to report more than one strategy.

We also added one item about the appraisals of threat and challenge made by the participants when being bullied. This item asked, "When you were being bullied, what consequences did you think bullying would have for you?" A checklist of responses was based on outcomes identified in previous research (Hunter & Boyle, 2004), for example, "I would learn how to deal with bullying in the future" (challenge) and "I would become socially isolated" (threat). A single item measuring perceived control was also added, in which participants indicated whether or not they felt they could do something to change the situation. Response alternatives were "No," "Not without help," "With a little help," and "Yes, on my own." Previous research with children has indicated that single-item measures of control have discriminant validity (Hunter & Boyle, 2002, 2004).

Following this section was a general question about whether the participant has ever thought about "Hurting yourself or taking your own life?" (response options were "No, never," "Yes, once," and "Yes, more than once"). A five-item distress scale (adapted from Rivers, 1999) was also included. This examined whether participants currently experience any of the following: distressing memories, nightmares, the feeling of re-living the bullying, flashbacks or distress in similar situations. Responses to the distress scale were measured on a five-point scale using response alternatives "No, never," "Not often," "Sometimes," "Often," and "Always." The mean of the five responses was used as a summary score for this scale.

Procedure

Participants were recruited in class. They were given a brief description of the project and assured that all responses were confidential. Filling out the questionnaire took approximately 30 minutes.

Data Analysis

Participants were categorized as *victims* if they indicated that they had been bullied in any way (physically, verbally, or indirectly) "sometimes" or more often, if they perceived the experience to be at least "somewhat severe," and if they reported never having bullied others. Other possible frequency responses were "never" and "rarely," but previous research has usually only accepted bullying occurring "sometimes" or more often as genuine bullying (e.g., Whitney & Smith, 1993). Participants were categorized as *bullies* if they indicated that they had in any way bullied other children (physically, verbally, or indirectly) "sometimes" or more often, but had never themselves been victims of bullying. Finally, participants were categorized as *bully-victims* if they indicated that they had been bullied (physically, verbally, or indirectly) "sometimes" or more often, if they perceived the experience to be at least "somewhat severe," and if they had also bullied other children (physically, verbally, or indirectly) "sometimes" or more often. Participants who had never bullied others and who had never been victims were classified as *uninvolved*. This allowed 211 of the 219 participants to be categorized.

For the analysis on match, coping-strategy use was categorized as *avoidance only* ("avoiding the situation," "ignoring the bullying," and "staying away from school"),

approach only ("help from friends," "help from family," "help from teacher," "fighting back," "talking to the bully," and "making fun of the bullying"), or *both*. The approach-avoidance distinction was based on the definition by Roth & Cohen (1986). Control was dichotomized either as high (people who said they felt they could deal with the bullying either on their own, or with a little help) or low (people who said they felt they could not deal with the bullying, or not without help). Students were defined as displaying match if they had high control and used only approach strategies, or had low control and used only avoidance strategies ($n = 13$: 4 males, 8 females, 1 unidentified). Conversely, they were defined as displaying no match if they had high control and used only avoidance strategies, or had low control and used only approach strategies ($n = 8$: 5 males, 3 females).

A single variable was created to examine the *challenge* and *threat* appraisals. This reflected whether the overall appraisal was positive (more challenge than threat appraisals), negative (fewer challenge than threat appraisals), or neutral (equal number of each type of appraisals).

Results

Overall, the largest single role was that of uninvolved, followed by victim, bully-victim, and bully (see Table 1). There were no statistically significant differences in role membership according to sex, $\chi^2(3, N = 206) = 2.99, p > .05$. There was also no difference in the proportion of pupils classified as victims or bully-victims according to whether they were bullied in primary school, secondary school, or both, $\chi^2(2, N = 94) = 5.15, p > .05$, (see Table 2).

Table 1
Distribution of Participants According to Sex and Type of Bully-Victim Role

Sex	Type			
	Victim	Bully-Victim	Bully	Uninvolved
Male	25	8	9	27
Female	38	23	13	63
Total	63	31	22	90

Note. Six students failed to indicate sex. Hence $N = 206$ for Table 1 despite 211 participants being categorized into the four bully-victim roles.

Table 2
Distribution of Victims According to School-Stage

Type	School-Stage		
	Primary	Secondary	Both
Victim	33	11	19
Bully-victim	9	6	16
Total	42	17	35

As shown in Table 3, in general, the two strategies endorsed as most effective were “talking to the bully” and “ignoring the bullying,” followed by three different forms of “help from others.” The strategies endorsed as least effective were “staying away from school,” “fighting back,” “making fun of the bullying,” and “avoiding the situation.” Expected cell frequencies were too low to allow examination of gender differences using chi-square, except for the strategy “ignoring the bullying” (no sex difference, $\chi^2(1, N = 40) = 0.31, p > .05$). It was also possible to examine whether males or females reported endorsing the use of social support by collapsing the three help categories into one. Again, there was no significant difference, $\chi^2(1, N = 55) = 0.64, p > .05$.

Examination of Table 3 reveals some trends by sex. Female participants endorsed “help from friends” and “help from family” as most effective, whereas male participants endorsed “talking to the bully,” “ignoring the bullying,” and “help from friends” as most effective. “Fighting back” was considered the least effective by both male and female victims. None of the males and only two female victims used “staying away from school.” None of them endorsed it as a good strategy. Male victims thought that “avoiding the situation” was less helpful than did female victims.

With respect to the period of victimization, as shown in Table 4, we exclusively examined the data from victims who indicated that they were bullied *only* in primary school or *only* in secondary school, as there was no way of determining whether strategies were used in primary or in secondary school when students were bullied in both. The differences are clearest in the strategies “help from family” and “ignoring the bullying”: In the former, all victims who used this strategy in secondary school endorsed it as effective, compared to less than a third of those bullied in primary school; in the latter (“ignoring the bullying”), more than half of primary school victims endorsed this as an effective strategy, whereas

only 17% of secondary school victims did so. There was a broader range of strategies both used and endorsed by the primary school group, whereas those bullied only in secondary school used fewer strategies, and endorsed three main types of strategies as effective: “help from friends,” “help from family,” and “help from teacher.” Differences between primary and secondary school could not be examined due to low expected frequencies in chi-square.

In order to examine the effects of past coping-strategy use on present distress, a standard multiple-regression analysis was carried out. The mean distress score was used as the criterion variable, and each of the nine coping strategies were predictor variables. The coping strategies accounted for a total of 9.8% of the variance in the distress score ($F_{9, 65} = 0.79, p > 0.05$). However, none were significant predictors of distress.

Chi-square analyses revealed no sex differences in any of the appraisals. There were no statistically significant differences in overall appraisal, depending on whether victims were bullied only in primary school or only in secondary school. However, a statistically significant difference was observed in victims’ perceived control, with more primary school victims perceiving high control over the bullying than secondary school victims, $\chi^2(1, N = 45) = 4.14, p < .05$.

Appraisals were also examined to see if they had direct effects on distress. Students reporting high control, reported significantly lower distress than students with low control, $t(68, N = 70) = 3.43, p < .01$. A one-way ANOVA examining the effect of threat and challenge appraisal was also significant, ($F_{2, 73} = 4.80, p < .05$). Post-hoc Tukey HSD tests were carried out in order to examine which means were different. It was found that students with greater threat than challenge appraisals reported significantly higher distress than students with greater challenge than threat appraisals.

Table 3
Strategies and Victims, by Sex, who Used (n) and Endorsed (% of n) the Use of Each Strategy

Strategy	Sex				Total	
	Male		Female		n who used strategy	% of n who endorsed strategy
	n who used strategy	% of n who endorsed strategy	n who used strategy	% of n who endorsed strategy		
Talking to bully	5	80	7	43	12	58
Ignoring the bullying	13	62	27	41	40	48
Help from friends	10	60	15	47	25	52
Help from family	6	33	15	47	21	43
Help from teacher	2	50	7	29	9	33
Avoiding the situation	14	14	19	26	33	21
Making fun of the bullying	5	20	13	15	18	17
Fighting back	4	0	3	0	7	0
Staying away from school	—	—	2	0	2	0
Others	—	—	4	100	4	100

Table 4
Strategies and Victims, by Time Period, Who Used (n) and Endorsed (% of n) the Use of Each Strategy

Strategy	Time Period					
	Primary School		Secondary School		Total	
	<i>n</i> who used strategy	% of <i>n</i> who endorsed strategy	<i>n</i> who used strategy	% of <i>n</i> who endorsed strategy	<i>n</i> who used strategy	% of <i>n</i> who endorsed strategy
Help from friends	12	58	5	60	17	59
Help from family	7	29	4	100	11	55
Help from teacher	2	50	2	50	4	50
Ignoring the bullying	21	57	6	17	27	48
Talking to bully	7	43	—	—	7	43
Avoiding the situation	15	27	5	0	20	20
Making fun of the bullying	10	20	4	0	14	14
Fighting back	2	0	1	0	3	0
Staying away from school	1	0	—	—	1	0
Others	2	100	1	100	3	100

Finally, match was examined (see above for explanation of groups). Pupils who reported match between control appraisals and coping-strategy use were compared to those who did not report match. These two groups did not differ in the extent to which they reported experiencing distress as adults, $t(18, N = 20) = -0.71, p > .05$.

Discussion

The first aim of this study was to examine what influence coping strategies used by child and adolescent victims of bullying have upon distress experienced as an adult. Results indicated that the strategies examined here did not influence the distress reported by adult "survivors" of school bullying. The second aim, which sought to examine whether a match between control appraisals and coping-strategy use influenced subsequent distress, also revealed no significant differences. However, an unexpected effect of appraisal on distress was found. Specifically, heightened perceptions of control were associated with less distress, as were appraisals reflecting more challenge than threat. Regarding our third aim, approach strategies were generally perceived to be the most effective for coping with bullying, while aggressive and avoidance strategies were perceived as less effective.

With regard to prevalence, the data suggests that 48% of Spanish boys and 45% of girls experience some form of bullying during their schooling. Given the psychological problems associated with victimization, these levels of bullying highlight the importance of effective intervention.

Contrary to our expectations, none of the coping strategies measured in this study significantly predicted the level of distress experienced by participants. This suggests that strategies which are spontaneously used by children and adolescents in response to bullying do not serve any

protective long-term function, at least with regard to future distress as measured here. Kochenderfer-Ladd and Skinner (2002) also failed to find any protective function in coping-strategy use for girls in relation to depression and anxiety (although strategies did influence more psycho-social adjustment, such as in social competence and loneliness). However, these authors found that internalizing and externalizing strategies were related to adjustment among boys. Although Cassidy and Taylor (2001) examined similar strategies to those in the current study, they combined them with measures reflecting appraisal (e.g., control and creativity), so that it is difficult to determine which of the elements they measured were most important in reducing distress (a point returned to below). The present study did not examine strategies such as internalizing and externalizing, and future research should examine whether such strategies are detrimental in the long-term.

From the point of view of developing more effective intervention strategies, our findings were disappointing. None of the strategies examined here seem to constitute strategies that could be recommended to bullied pupils as a way of protecting against future distress. However, these results do emphasize the need for effective intervention, since without help, pupils are at risk of developing problems in later life.

The long-term effects of match were also at odds with our expectations: Victims' match between coping and appraisals had no influence on the degree of distress experienced in adult life. This finding may need to be interpreted with caution, given the low number of pupils involved in the analysis. Our analysis also revealed that victims who reported a low perception of control over bullying, reported higher levels of distress than victims who felt more in control. Furthermore, bullied students whose appraisals reflected more challenge than threat also reported less distress.

These results are interesting, considering the ideas of Pape and Arias (1995) who also reported that neither coping nor match predicted psychological distress in female victims of partner violence, yet perceptions of high control were associated with reduced distress. These authors suggested that appraisal and coping-strategy use may be affected by surprise, confusion and anxiety caused by violent events, leading to the subsequent reliance on characteristic appraisal and coping-strategy use. They further hypothesized that, although this perception of control may be illusory, its effect on reducing distress actually reinforces it. Other research on match (Folkman et al., 1986; Forsythe & Compas, 1987; Vitaliano et al., 1990) has not focused specifically on victimized populations.

Our study differs from that of Pape and Arias (1995) in that the outcomes measured are long-term effects and not concurrent measures of distress, and the participants involved are victims of peer aggression rather than partner aggression. However, the similarity of results suggests that a perception of high control may act as a protective factor in victimized populations. This may also help to explain why Cassidy and Taylor (2001) found their coping style measure to be a significant predictor of distress. Their measure incorporated perceptions of control and helplessness, perceptions which may have accounted for the reduction in distress they report. Furthermore, the association between positive appraisals and reduced long-term distress in our study implies that the perception of bullying as a challenge rather than a threat also reduces long-term distress.

The processes by which these appraisals reduce long-term distress are unclear. If concurrent measures of appraisal in the victims of bullying are correlated with concurrent measures of distress, then the reduction in long-term effects may be partially explained, because the overall experience should be perceived as less stressful. However, future research is required to examine this possibility.

Another potential explanation concerns the emotions that victims experience when being bullied. Hunter, Boyle and Warden (in press) report that threat appraisals predict fear and other emotions associated with a harmed self-image (e.g., guilt, shame), whereas challenge appraisals do not. Thus, it is possible that negative emotions experienced while being bullied are the cause of future distress. If this is indeed the case, interventions designed to prevent bullying may be strengthened by incorporating some kind of "after-care." For example, ex-victims may need help, or counseling, to deal with the emotions and distress they experience while being bullied.

The coping strategies perceived to be most effective were "talking to the bully," "ignoring the bullying," and "getting help from friends/teacher/family." Generally, this supports the hypothesis that strategies designed to deal actively with the problem are more effective than those aimed at avoiding it, although the presence of "ignoring the bullying" (an avoidance strategy) contradicts our expectation. However,

while victims who ignore children who are teasing them are, according to the definition of Roth & Cohen (1986), using an avoidance strategy, they may be dealing actively with the problem by showing the bully that they are not bothered by the teasing, in the hope that the bullying will cease.

The strategies perceived to be least effective were "fighting back," "staying away from school," "making fun of the bullying," and "avoiding the situation." Although "fighting back," is an approach strategy, it is also an aggressive strategy, and Fournet et al. (1998) suggested that it is poorly suited to long-term adaptive competence, compared to non-aggressive strategies. Aggressive strategies may lead to more problems than they solve, especially if aggression is used more extensively to deal with problems, as Olafsen and Viemerö (2000) reported in the case of male bully-victims. In addition, the imbalance of power between bully and victim may mean that aggressive strategies are almost certain to fail from the outset. "Avoiding the situation" and "staying away from school" are both avoidance strategies, more so than "ignoring the bullying" because, in both of them, the problem is avoided completely. Hence, whereas ignoring the bullying may actually contribute toward stopping it (by showing indifference), avoiding situations where one might be bullied does not really deal with the problem itself, since the implication is that when these situations are encountered again, the problem will still exist. "Making fun of the bullying" was perceived to be ineffective. This may be because the victim, although upset, actually gives the impression that he or she finds the situation funny. This leads bullies to think their behavior is harmless, therefore, they persist. In addition, it may also reduce the possibility of "defenders" intervening, as the victim appears to be engaging in, and indeed enjoying, harmless peer interaction.

It is also interesting that "getting help from family" was considered to be effective by all participants who used it to deal with bullying in secondary school, whereas less than a third of those using it in primary school endorsed it (although it is important to note that small numbers of pupils were involved in its use). Previous research with children and adolescents (Hunter & Boyle, 2004; Kliewer, 1991; Rossman, 1992) reports that, as children mature, they seek less social support from others. Thus, assuming that primary school pupils often seek help, their families may suspect that the problems they report are not very severe, whereas adolescents' families take problems more seriously because help is sought less frequently.

The use of retrospective self-report data is one limitation of our study. Clearly, specific cognitions and behaviors relating to events that occurred 10 or even 20 years ago may not be entirely accurate. However, not all authors agree that retrospective reports of childhood stress are inherently unreliable (see Brewin, Andrews, & Gotlieb, 1993). Furthermore, in the absence of longitudinal data, retrospective designs are an effective way to begin examining the effects that victimization may have on adult adjustment.

A second limitation is that some conclusions are drawn using data from small groups. For example, the effects of match are based on the responses of just 21 victims. Future research should address this problem by recruiting more participants.

In sum, there appear to be several strategies that students feel are effective in dealing with bullying. "Talking to bullies," "Ignoring the bullying," and "Getting help from someone else" were all considered good strategies. "Fighting back" was not considered effective, and neither was "Avoiding the situation," perhaps because avoiding the problem means avoiding its solution. In addition, "Making fun of the situation" was also considered ineffective, and we suggested this might be because it encourages bullies to continue, or reduces the possibility that defenders will intervene.

Neither coping strategies nor match influenced long-term distress, but appraisals did. Explanations for this may be related to the effects appraisals might have on levels of distress, and the quality of emotions experienced by victims during the actual bullying episode.

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