"Stick and stones hurt my bones but his glance and words hurt more". The impact of emotional and physical violence by current and former partners in Italian battered women.

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Mental and Physical Health of Italian Youngsters Directly and Indirectly Victimized at School and at Home

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Internalizing symptoms, such as depression, anxiety/withdrawal, as well as somatic complaints are indicators of maladjustment. Mental and physical complaints may be related to victimization at home and at school. In the present study we investigated the independent impact of direct victimization at home (parental severe scolding and physical harming) and at school (i.e. peers physical and verbal bullying) and that of indirect victimization at home (i.e. exposure to interparental violence), and at school (exclusion, spreading rumors) on the development of internalizing symptoms in a sample of 661 Italian youngsters. Results revealed an overall high rate of reported victimization; direct and indirect victimization at home and at school were significantly associated with internalizing symptoms. Hierarchical regression analyses, conducted separately for boys and girls, showed that the strongest risk factor for both boys and girls for all forms of internalizing symptoms is being indirectly victimized at school; for girls another significant risk factor is exposure to mother's violence against the father (for withdrawal); whereas for boys it is father's violence against the child predicting somatic complaints. Implications for mental health practitioners are discussed.

The victimization of children and adolescents within the home has been associated with a number of short and long term consequences, including withdrawal, depression, low self-esteem, and somatic complaints (Edleson, 1999). Victimization can take place at home and at school, and can be *direct* or *indirect*. Direct victimization occurs when physical, or sexual misconduct is committed directly against the child, at home by parents, siblings, or by other significant adults, or at school by peers (Farrington, 1993). The negative impact of direct victimization in the family has been widely documented. Victimized children are more likely to develop psychopathological symptoms, to attempt suicide or to harm themselves, to become depressive and to develop psychosomatic complaints (for a review see Putnam, 2003). Similar negative consequences can be found in bullied children and adolescents (Baldry, 2003b; Rigby, 2000). *Indirect* victimization is any form of violence indirectly suffered by a youngster and it includes exposure to interparental violence at home and exclusion or spreading rumors at school.

Exposure to inter-parental violence has been acknowledged as a risk factor for the development of short and long term negative consequences, similar to those reported in directly abused children and adolescents (Jaffe, Wolfe, & Wilson, 1990) These consequences include emotional and behavioral problems and physical-mental health impairment (American Psychological Association, 1996; Campbell & Lewandowski, 1997; Edleson, 1999; McClosky, Figueredo, & Koss, 1995). Exposure to domestic violence affects boys and girls differently. Girls are more likely to exhibit internalized symptoms such as depression, withdrawal and anxiety (Kerig, 1999; Maker, Kemmelmeir, & Peterson, 1998) whereas boys, although they can also show internalizing symptoms, are more likely to react in externalized way by showing conduct problems such as aggression, bullying, animal abuse or delinquency (Baldry, 2003a, 2003b; Baldry & Farrington, 2000; Jouriles & Norwood, 1995). The meta-analysis of 41 studies conducted by Wolfe, Crooks, Lee, McIntyre-Smith, and Jaffe (2003) provided further evidence for these patterns, although gender differences are not always taken into account.

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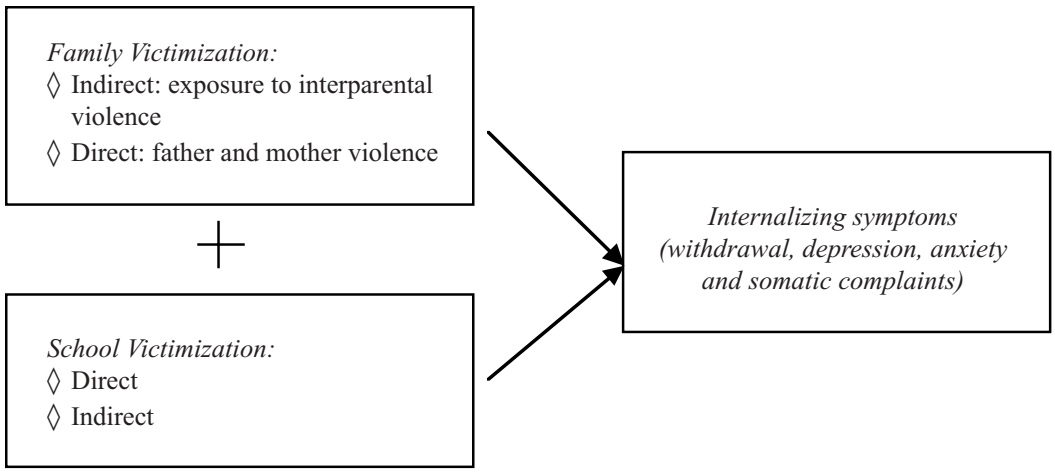
Figure 1
Mental and Physical Health Problems According to Victimization Experiences



Findings from the literature review are summarized in Figure 1, which displays a stepwise model. This model suggests that family violence (direct and indirect) is associated with internalizing symptoms. Children might not directly react to the suffering they experience but express the pain by developing psychological or physical symptoms. Victimization in the family alone or combined with victimization in the school are associated with negative reactions. Being constantly picked on and harassed by peers undermines the psychological well-being of children. Direct and indirect victimization at home and school can be considered as risk factors not causes of internalizing symptoms. The model shows possible links between these factors.

When conducting research on the impact of victimization it is important to control for or to separate those children who are both directly abused and exposed to domestic violence from those who are only exposed (Edleson, 1999, Kolbo, Blakely, & Engleman, 1996), and the same applies for direct and indirect victimization at school. As stressed by Hughes, Parkinson, and Vargo (1989), exposed only children develop fewer behavioral problems than the abused and exposed ones; however, very little is known about the differences in mental health outcomes for these two groups.

According to the results reported by English, Marshall and Stewart (2003) based on the LONGSCAN sample (Longitudinal Studies of Child Abuse and Neglect, Runyan et al., 1998), though exposure to domestic violence is not directly associated with child health at age 6, it has, however, an *indirect* effect meaning that it has a significant impact on overall family functioning, on the caregiver's general health and well-being, and on the quality of the caregiver's interaction with the child, which in turn are risk factors associated with a poor health of the child (English, Marshall, & Stewart, 2003).

Research on the short and long term negative consequences on the mental health of bullying of victims indicated effects such as diminished self-confidence and self-esteem (Kumpulainen, et al., 2000; Rigby, 2000), distress and preoccupation, and increased depression and anxiety (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Slee, 1995). Being a victim of indirect bullying at school is a risk factor for suicidal cognition and other internalizing symptoms (Baldry & Winkel, 2003; Rigby, 2000).

Direct and indirect victimization at school can have different impacts on a child or adolescent (Kaltiala-Heino, Rimpelae, Rantanen, & Rimpelae, 2000; Wolke, Woods, Bloomfield, & Karstadt, 2000). Bullying can be direct, such as verbal and physical (including hitting, kicking, taking belongings, involving more often male victims, or indirect or relational (including hurtful manipulation, social exclusion and malicious rumor spreading), involving

more often girls. Crick and Grotpeter (1995) and Lagerspetz, Bjorkqvist and Peltonen (1988), in fact, found that girls were significantly more relationally aggressive than were boys (see also Bjorkqvist, Lagerspetz, & Kaukiainen, 1999) though subsequent studies revealed that boys obtained higher relational and overt aggression scores compared to girls (Henington, Hughes, Cavell, & Thompson, 1998). Indirect victimization at school is often under-reported because it is less evident and underestimated by teachers, parents and others adults; victims of indirect bullying rarely disclose this type of abuse either because they feel ashamed or they fear retaliation. These victims feel frustrated, powerless and are at risk to develop a variety of psychological problems (Rigby & Slee, 1999). In the short term, direct bullying can cause more overt negative consequences (e.g. bruises, loss of properties), but repeated indirect victimization might cause more damaging mental health problems in the child functioning such as withdrawal or depression as well as somatic reactions (Forero, McLellan, Rissel, & Barman, 1999).

Previous studies on the impact of direct victimization at school have found that victims are more anxious, insecure, and report a lower level of self-esteem than children who are not victimized (Duncan, 1999; Olweus, 1993). Female victims, in particular, are more likely to report poorer mental health, and display particularly high levels of depression and withdrawal (Kaltiala, Rimpelae, Rimpelae, & Rantanen, 1999; Rigby & Slee, 1999). In regards to physical health, Rigby (1999, 2000) found that victims of persistent bullying develop a series of somatic complaints (often requiring medical attention) such as headaches and stomachaches (Williams, Chambers, Logan, & Robinson, 1995).

Rigby (1999) suggested that indirect bullying aimed "at subtly denigrating and isolating individuals may be expected to have more serious psychological effects" (pp. 102-103). Indirect bullying creates a constant state of fear and anxiety in the victim. A child being downgraded, humiliated, teased, isolated by a peer or a group of peers will soon think is his or her fault and will be at higher risk of developing depressive symptoms and develop a sense of powerlessness. If a child is *both* directly and indirectly victimized at school, it could be hypothesized that this might lead to an even worse mental or physical condition. Physical and verbal bullying alone is damaging, so if psychological bullying takes place this might increase the suffering.

To date, no research has investigated how different forms of direct and indirect victimization (at school and at home) independently affect internalizing mental health problems, independently from socio-demographic variables such as age, gender and socio-economic status. The aim of the present study, therefore, was to determine the independent impact of different risk factors (direct and indirect victimization at home and at school) on the occurrence of internalizing complaints in a non-clinical sample of Italian youngsters.

As pointed out by Edleson (1999), knowledge about the effects of exposure to interparental violence or direct victimization is over-dependent on adults' reports or on reports of children in immediate crisis—those recruited from shelters for battered women or health care institutions. These children are not representative of the population and they might face several problems besides that of violence at home, such as distress due to change of housing and living in a new environment, as well as any recent acute violence. Young people recruited from the community, on the other hand, encounter different ranges of severity of violence, ranging from severe, mild, or in most cases no violence at all (Haj-Yahia, 2001). For this reason they should be preferred when conducting research on the effects of direct and indirect victimization because they better represent exposed children. Findings from this type of research can be generalized to the entire population of children exposed to domestic violence and not only to that of children living in shelters.

A few excellent retrospective studies have been conducted thus far in which undergraduate college students have assessed the relationship between victimization at school and child abuse. These studies sampled middle and high school students to determine the extent of exposure to violence in the home and of self reported violent behavior (Duncan, 1999; Singer, Miller, Guo, Slovak, & Frierson, 1998; Song, Singer, & Anglis, 1998). Very little research, however, has been conducted regarding the impact of risk factors, such as direct and indirect victimization at school and at home, on the mental and physical health of non-clinical Italian youngsters.

METHOD

Participants

The study was conducted with 661 students (54.2% boys and 45.8% girls) recruited from 10 different middle schools in Rome, Italy. Their age ranged between 11 and 15 years, with an average of 12.1 years (*SD* = 1.02). Half of the sample (51.8%) belonged to a middle social class, 25.4% to a high and 22.8% to a low social class. Socio-economic status was determined according to the occupation of the father and of the mother, the area of residence, the size of the house and number of people living in it.

Procedure

Schools were randomly selected from the local school register of the province and municipality of Rome. Of the original schools contacted, two were dropped because the head of the schools stated that their schools had already participated in previous studies and benefited from intervention programs on school bullying. It was therefore decided that students from these schools might not be comparable with the others due to their increased sensitivity towards the problem. These schools were replaced with two others from the same neighborhood, so that the sample would include, as much as possible, participants with the same characteristics.

Parents were informed about the study and their consent was obtained with a written form; all parents allowed their children to take part in the study. Students were approached in their own class and were told that the research was about life in school and at home and about their general well-being. They were assured of anonymity and confidentiality of the answers provided and they were informed that results would be used for research purposes only.

Measures

All variables were collected with a self-report questionnaire consisting of several scales measuring the dependent and independent variables.

Internalizing symptoms were measured with the 31-item subscale of the Italian version of Achenbach and Edelbrock's (1983) Youth Self-report (Frigerio, 1998). The internalizing scale consists of three dimensions: *withdrawal* (7 items: $\alpha = .74$, examples: "I rather be alone than with others", "I feel underactive"); *somatic complaints* (9 items: $\alpha = .67$, examples: "I am extremely tired", "I suffer from stomach aches"), and *anxiety/depression* (16 items: $\alpha = .83$, examples: "I cry a lot", "I worry a lot"). One item ("I am unhappy, sad and depressed") is part of both the withdrawal and the anxiety/depression scales.

For each item respondents had to indicate with a three point scale whether each statement was 'not-true', 'somewhat true', or 'certainly true' for them. Raw scores were used and a total score was computed for each sub-dimension by summing up the corresponding items; higher values indicate more problems. For withdrawal, scores could range from 0 to 14, for somatic complaints from 0 to 18 and for anxiety/depression from 0 to 32. Respondents had to answer according to how they felt in the previous six months. These three dimensions measuring internalizing problems were used as the principle dependent variables in the multivariate analyses.

The Victimization Scales

Victimization at school was measured with the Italian modified version (Genta, Menesini, Fonzi, Costabile, & Smith, 1996) of the bullying questionnaire originally developed by Olweus (1993) and extended by Smith and Shu (2000). Three different indexes were used for the purpose of the present study: *Direct victimization*, comprised 4 items: called nasty names, physically hurt, belongings taken away, threatened (Cronbach's $\alpha = .64$); *Indirect victimization*, comprised 3 items: being rejected, rumors spread, no one would talk ($\alpha = .58$); *Overall victimization*, comprised 7 items measuring direct and indirect victimization ($\alpha = .71$).

Students were asked to indicate on a 5-point scale whether they were 'never' victimized, or victimized 'once or twice', 'sometimes', 'about once a week', 'several times a week' in the previous 12 months. Previous studies looked at the frequency of bullying in the previous three months or during the last term (Smith & Shu, 2000). For the purpose of the present study, however, we wanted to determine any possible temporal relationship between victimization and internalizing symptoms which were measured with

reference to the previous six months. For this reason, it was essential to investigate those more persistent cases occurring over a one-year period next to the recent episodes of bullying at school (Rigby, 1996).

Exposure to domestic violence. Youngster's exposure to interparental violence was measured with a modified version of the Conflict Tactics Scale (Straus, 1979) adapted for Italian youngsters by Baldry (2003a, 2003b). The scale comprised 10 items measuring different types of father-to-mother and mother-to-father violence: 5 items refer to the violence of the father against the mother (Cronbach's $\alpha = .79$) and 5 to the mother's violence against the father ($\alpha = .68$). Types of violence measured were: verbal violence (name calling), physical (hitting and throwing objects against the partner) and emotional violence (threatening); an additional item measured 'harm doing'. Because the sample was a non-clinical one and due to the age of respondents, more severe forms of violence were not included (Straus & Gelles, 1990). Students could answers on a 5-point Likert scale ranging from 1 = *never happened* to 5 = *happened very often*.

Parental victimization. In order to measure direct victimization of a child by a parent, participants were asked to indicate on a 5-point scale, ranging from 'never happened' to 'happened very often', how often their fathers or their mothers harmed them or severely scolded them (4 items, $\alpha = .69$). Asking about harm doing does not provide a clear picture of child abuse; it is only an indicator of subjective perception of harm but it can help respondents to talk about their perception of harm inflicted by their parents.

Background variables. The questionnaire measured some socio-demographic variables: gender, age, father's and mother's occupation, place of residence, numbers of rooms in the house and number of people living in it (these indicators helped to determine the level of socio-economic status, SES).

RESULTS

The first step in the analysis was to determine the prevalence of reported victimization (at school and at home) and the prevalence of internalizing symptoms overall and according to gender differences. Table 1 shows that 1 in 4 students (25%) has been victimized at school, either directly or indirectly or both, with boys reporting higher rates than girls. However, this difference tends to be true only for direct victimization, with more than half of all respondents reporting being victimized in the previous year. No gender differences occurred for indirect victimization with boys and girls reporting similar rates.

With regard to exposure to domestic violence, up to a third of all youngsters reported exposure to interparental violence. With regard to parental victimization, over a third of all students reported being directly victimized by one or both parents; boys reported being more often victimized compared to girls. More than one-third of all girls and a fourth of all boys reported having internalizing symptoms: 42.2% of all girls reported depressive and anxiety symptoms, compared to 27.7% of boys; 37.2% of girls compared to 25.8% of boys reported withdrawal symptoms and 31.9% of girls and 21.8% of boys had somatic complaints.

Table 2 presents the Pearson intercorrelations of different forms of direct and indirect victimization with internalizing symptoms and the socio-demographic variables. Both direct and indirect victimization at home were associated with direct and indirect victimization at school. Gender was negatively correlated with parental violence meaning that boys were more likely to report being abused by their parents; gender was also positively correlated with internalizing symptoms meaning that girls have a poorer mental and physical health compared to boys.

Multiple Regression

According to what emerged from the correlations and frequency comparisons, separate hierarchical regression analyses for boys and girls were performed because risk factors seemed to work differently for them. The four step hierarchical model of regression analysis was chosen to determine the individual contribution of direct and indirect victimization at home and at school in predicting internalizing symptoms, distinguishing between victimization in the family and at school, over and beyond socio-demographic variables (age, and socio-economic status). This procedure was adopted due to the correlational nature of the investigation. The

Table 1
Percentages of reported victimization (at school and at home) and internalizing symptoms overall and according to gender differences

	All students ($N = 644$)	Girls ($N = 295$)	Boys ($N = 349$)	χ^2 (1)
School victimization				
Overall victimization at school	26.7	21.7	30.9	6.99**
Direct victimization at school	44.7	35.9	52.1	17.01***
Indirect victimization at school	33.4	31.2	35.3	1.24
Indirect victimization at home				
Overall exposure to domestic violence	42.7	45.7	40.1	2.01
Mother to father violence	35.0	39.2	31.4	4.23*
Father to mother violence	38.7	41.3	36.6	1.47
Parental victimization				
Mother victimization of the child	31.5	24.1	37.8	13.78***
Father victimization of the child	28.6	19.4	36.4	22.35***
Internalizing symptoms				
Depression and anxiety	34.4	42.2	27.7	14.24***
Withdrawal	31.1	37.2	25.8	9.94**
Somatic complaints	26.5	31.9	21.8	8.15**

Notes. Comparisons are for boys and girls. 'Direct victimization as school' includes called nasty names, physically hurt, belongings taken away, threatened. 'Indirect victimization at school' includes being rejected, rumors spread, no one would talk. 'Domestic violence' includes verbal and physical violence. 'Parental victimization' includes harm doing and severe scolding of the child. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2
Intercorrelations of variables measuring: direct and indirect victimization at school and at home with withdrawal, anxiety/depression, and somatic complaints and socio-demographic variables

Variables	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Gender	-.01	.01	-.24*	-.12*	-.02	.07	-.16*	-.01	.13*	.18*	.16*
2. Age	/	-.18*	-.01	.14*	.07	.09	.01	.08*	*.09**	*.07*	*-.01*
3. SES		/	.04	-.05	-.09*	-.06*	-.04	-.07	*-.10**	*-.07*	*-.02*
4. Father victimization of the child			/	.57*	.35*	.14*	.19*	.13*	*.07*	*.13**	*.18**
5. Mother victimization of the child				/	.14*	.31*	.17*	.14*	*.14**	*.15**	*.17**
6. Exposure to father to mother violence					/	.53*	.09	.07	*.08*	*.08*	*.16**
7. Exposure to mother to father violence						/	.11*	.08	*.13**	*.19**	*.13**
8. Direct victimization at school							/	.47*	*.21**	*.21**	*.29**
9. Indirect victimization at school								/	*.34**	*.23**	*.36**
10. Withdrawal									/	.46*	.76*
11. Anxiety and depression										/	.58*
12. Somatic complaints											/

*$p < .01$; all correlations are Bonferroni corrected.

hierarchical model, however, enables to control for any significant increase of the variance of the dependent variables after entering each set of risk factors: indirect and direct victimization in the family and in the school. All variables scores were standardized to make scales comparable.

With regard to girls' withdrawal (see Table 3), at each step of the model there was a significant increase in amount of variance explained ($R^2 = .188$). Significant risk factors were mother violence against the child and indirect victimization at school. With regard to anxiety/depression, the full model accounted for $R^2 = .223$ of the total variance. Significant predictive factors were direct and indirect victimization at school. With regard to somatic complaints, the amount of variance explained by the final model was $R^2 = .168$ of the total variance. The significant risk factors entered in the model were exposure to mother violence against the father, and direct and indirect victimization at school.

With regard to boys' withdrawal (see Table 4), only indirect victimization at school was significant (the overall variance of the model explained is $R^2 = .119$). Boys' anxiety and depression were significantly explained by direct and indirect victimization at school ($R^2 = .162$). Finally, boys' somatic complaints were significantly predicted by the violence of the father against his son and direct and indirect victimization at school ($R^2 = .105$).

DISCUSSION

The present study aimed at studying the impact of direct and indirect victimization at home and at school on the physical and mental health (internalizing symptoms: depression, anxiety/withdrawal and somatic complaints) of Italian youngsters. The study was correlational in nature and established the independent significant effect of risk factors related to direct and indirect victimization at home and at school. Ongoing direct and indirect victimization can undermine the mental health of youngsters.

Results from the present study revealed that victimization is widespread among Italian youngsters. Over a third of girls and almost half of all boys who took part in the study admitted to being victimized at school at least sometimes in the previous year. This proportion is slightly higher than what has emerged in previous studies indicating a prevalence rate ranging between 15% and 25% (Smith et al., 1999). However, most of these studies used a shorter reference point of three months which might explain the difference. Almost a third of all participants also reported being severely scolded or harmed by one or both parents. It must be mentioned, however, that it is not possible with these data to determine what participants might include in their definition of scolding or harm doing. Cross validation with other sources would be needed.

Participants also reported being exposed to a considerable proportion of interparental violence: almost half of them reported that one or both parents have been violent to each other either physically, verbally or both. If we were to make national estimates on the basis of the national demographic data based on the year 2000 census, we would find that approximately 750,000 boys and 700,000 girls aged 11-15 experience indirect violence at home, i.e. exposure to domestic violence. This estimate, however, should be considered with extreme caution as data from this study are not based on a national sample, but rather on a representative sample recruited only from the central part of Italy. Moreover, because data are based only on self reports, it is not possible to consider them as exact figures of exposure to interparental violence but as indices of the phenomenon.

From the present study it was not possible to determine whether the reported violence of the mother against the father was initiated or reciprocated as a means for self-defense. Regardless of the direction, it is important to acknowledge that there was a significant relationship between the two forms of violence. Youngsters reporting father to mother violence were also more likely to report mother to father violence. As indicated by Somer and Braunstein (1999), exposure to interparental violence constitutes a psychological maltreatment that causes distress, anxiety, withdrawal, and overall suffering. In the present study it was interesting to notice that exposure to mother to father violence seemed to be more strongly associated with internalizing problems. In the regression model, mother to father violence significantly predicted somatic problems, but only for girls. This result is in line with Kerig (1999) who found that girls are more vulnerable to victimization. Most studies failed to separate mother

Table 3

Summary of Hierarchical Regression Analysis for variables predicting withdrawal (N = 263), anxiety/depression (N = 250) and somatic complaints (N = 260) [internalizing problems] in girls

Predicting variables	Withdrawal B	*SE* (B)	β	Anxiety/depression B	*SE* (B)	β	Somatic complaints B	*SE* (B)	β
Step 1									
Age	.290	.134	.135*	.446	.133	.213**	.001	.124	.000
SES	-.051	.063	-.050	.051	.063	.051	-.005	.059	-.006
R^2			.023			.044			.000
F *Model* $_{(df)}$			$3.09^{*}{}_{(2, 261)}$			$5.67^{***}{}_{(2,248)}$			$.01_{(2,258)}$
Step 2									
Age	.238	.134	.111	.407	.133	.194**	-.066	.122	-.033
SES	-.052	.063	-.051	.053	.063	.053	.006	.057	.006
Mother-to-father violence	.184	.080	.158*	.141	.079	.123	.176	.082	.165*
Father-to-mother violence	-.004	.091	-.003	.064	.089	.050	.104	.089	.086
R^2			.047			.066			.076
ΔR^2			.024*			.023*			.076***
F *Model* $_{(df)}$			$3.21^{**}{}_{(4,259)}$			$4.37^{**}{}_{(4,246)}$			$5.23^{***}{}_{(4,256)}$
Step 3									
Age	.162	.135	.076	.339	.136	.162**	-.134	.122	-.068
SES	-.055	.063	-.054	.046	.064	.046	-.005	.057	-.006
Mother-to-father violence	.097	.091	.083	.068	.090	.059	.176	.082	.165*
Father-to-mother violence	.004	.099	.003	.079	.099	.061	.104	.089	.086
Father victimization of the child	.025	.089	.016	.006	.091	.004	.124	.080	.111
Mother victimization of the child	.206	.085	.185**	.170	.086	.152*	.137	.077	.134
R^2			.078			.085			.112
ΔR^2			.030**			.018			.036***
F *Model* $_{(df)}$			$3.61^{**}{}_{(6,257)}$			$3.77^{**}{}_{(6,244)}$			$5.34^{***}{}_{(6,254)}$

)

...continued

Table 3 continued

Summary of Hierarchical Regression Analysis for variables predicting withdrawal (N = 263), anxiety/depression (N = 250) and somatic complaints (N = 260) [internalizing problems] in girls

Predicting variables	Withdrawal B	*SE* (B)	β	Anxiety/depression B	*SE* (B)	β	Somatic complaints B	*SE* (B)	β
Step 4									
Age	.021	.130	.010	.189	.128	.090	-.215	.121	-.109
SES	-.028	.059	-.027	.065	.059	.065	.011	.056	.012
Mother-to-father violence	.104	.086	.090	.073	.084	.064	.172	.080	.161*
Father-to-mother violence	.005	.093	.003	.088	.092	.068	.104	.087	.086
Father victimization of the child	.002	.084	.002	-.030	.086	-.024	.099	.078	.088
Mother victimization of the child	.178	.080	.160*	.142	.080	.127	.122	.075	.119
Direct victimization in school	.028	.076	.023	.170	.075	.145*	.130	.068	.123*
Indirect victimization in school	.332	.064	.333***	.298	.064	.298***	.150	.060	.164**
R^2			.188			.223			.168
ΔR^2			.111**			.139***			.056***
F *Model* $_{(df)}$			7.39***$_{(8,255)}$			8.70***$_{(8,242)}$			6.36***$_{(8,252)}$

Note: All scores are standardized. Positive β's are in the direction of being older, from a higher SES and being victimized. Different N's are due to missing values.
* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Summary of Hierarchical Regression Analysis for variables predicting withdrawal (N = 297), anxiety/depression (N = 292) and somatic complaints (N = 297) [internalizing problems] in boys

Predicting variables	Withdrawal B	*SE* (B)	β	Anxiety/ depression B	*SE* (B)	β	Somatic complaints B	*SE* (B)	β
Step 1									
Age	.144	.113	.076	.035	.112	.018	.043	.100	.025
SES	-.091	.055	-.098	-.104	.054	-.115*	-.029	.049	-.020
R^2			.019			.015			.002
F *Model* $_{(df)}$			$2.81_{(2, 295)}$			$2.14_{(2,290)}$			$.33_{(2,295)}$
Step 2									
Age	.136	.113	.071	.028	.112	.015	.025	.101	.015
SES	-.081	.055	-.098	-.096	.054	-.106	-.016	.049	-.020
Mother-to-father violence	.099	.095	.072	.155	.094	.116	.020	.095	.016
Father-to-mother violence	.028	.073	.027	-.019	.072	-.018	.097	.081	.092
R^2			.027			.026			.012
ΔR^2			.008			.011			.010
F *Model* $_{(df)}$			$2.01_{(4,293)}$			$1.92_{(4,288)}$			$.92_{(4,293)}$
Step 3									
Age	.136	.114	.071	.033	.111	.018	.041	.100	.024
SES	-.082	.056	-.089	-.102	.054	-.113	-.029	.049	-.035
Mother-to-father violence	.093	.098	.069	.123	.096	.092	.010	.096	.008
Father-to-mother violence	.020	.080	.019	-.065	.078	-.064	.029	.083	.027
Father victimization of the child	.020	.075	.021	.117	.075	.123	.180	.066	.208**
Mother victimization of the child	.013	.072	.013	.063	.071	.066	-.017	.064	-.019
R^2			.027			.051			.046
ΔR^2			.001			.025			.034**
F *Model* $_{(df)}$			$1.37_{(6,291)}$			$2.58^{**}_{(6,286)}$			$2.35^{***}_{(6,291)}$

...continued

Table 4 continued

Summary of Hierarchical Regression Analysis for variables predicting withdrawal (N = 297), anxiety/depression (N = 292) and somatic complaints (N = 297) [internalizing problems] in boys

Predicting variables	Withdrawal			Anxiety/ depression			Somatic complaints		
	B	*SE* (B)	β	B	*SE* (B)	β	B	*SE* (B)	β
Step 4									
Age	.143	.109	.075	.039	.105	.021	.044	.097	.026
SES	-.074	.053	-.080	-.096	.051	-.106	-.022	.047	-.026
Mother-to-father violence	.114	.094	.083	.134	.091	.101	.015	.094	.012
Father-to-mother violence	-.002	.077	-.002	-.093	.074	-.092	.019	.081	.018
Father victimization of the child	-.001	.072	-.001	.107	.070	.113	.167	.064	.193**
Mother victimization of the child	-.020	.069	-.021	.014	.067	.015	-.044	.062	-.051
Direct victimization in school	.077	.060	.084	.130	.058	.140*	.117	.053	.141*
Indirect victimization in school	.254	.064	.256***	.249	.062	.249***	.130	.057	.146*
R^2			.119			.162			.105
ΔR^2			.091**			.110***			.059***
F *Model* $_{(df)}$			4.87$^{***}_{(8,255)}$			6.85$^{***}_{(8,284)}$			4.23$^{***}_{(8,289)}$

Note: All scores are standardized. Positive β's are in the direction of being older, from a higher SES and being victimized. Different N's are due to missing values.
* $p < .05$, ** $p < .01$, *** $p < .001$

to father violence from the reverse; though domestic violence is characterized by women being victims of their partners' violence, there might be cases where the violence is reciprocated. Female victims are more at risk of severe violence and suffer worse consequences. For this reason, studies on the effects of violence need to distinguish between the violence perpetrated by mother from that of the father. When the mother is violent against the father, regardless of the reason, there is a higher risk for her children (especially in case of girls) to develop negative internalizing problems. This could be due to an attachment disorder with the mother (Wilson, 2001); abusive or absent mothers create a poor emotional and less stable base for the child, increasing the risk of maladjustment. Besides the negative effects of direct and indirect violence at home, the present study revealed that the strongest risk factor for internalizing symptoms for both boys and girls was indirect victimization at school. It is the constant and subtle picking on a child that is associated with poor child functioning (Rigby, 2000). Results, related to the model presented in Figure 1 which explained the possible relation between risk factors and internalizing symptoms, showed that direct and indirect victimization at home, as expected, were strongly interrelated especially if the victim and the perpetrator were of the same gender. The father who is violent against the mother is also more violent against the child, and the same applies for those mothers who are violent against the father, which is in line with the explanatory model developed by Widom (1989).

There are a number of important limitations which should be considered when interpreting the results of this study. First, this is a correlational study; therefore it is not possible to draw any conclusion in terms of causal relationships between variables. For this reason the model presented only shows possible links between risk factors and internalizing symptoms. In addition, as mentioned, measures of direct and indirect victimization and those measuring internalizing symptoms were based only on self-reports; multiple sources, such as parents, teachers or social workers should be used in further studies to corroborate findings. Self-reports are still reliable sources of information especially when measuring sensitive issues such as victimization of juveniles who would be less likely to disclose to adults (teachers or parents or even researchers) about their personal (negative) experiences at school or at home (Junger, Stroebe, & van der Laan 2001). Self-report measures are also more reliable tools to disclose different forms of indirect victimization that often go underreported since they are known only to those directly involved.

The amount of variance explained for each internalizing problem was not substantial; the model which worked better for girls, explained 22% of the total variance of anxiety and depression. For boys the amount of variance explained by the risk factors taken into consideration did not reach 20%. This means that internalizing symptoms were only partially explained by direct and indirect victimization at school and at home, or by sociodemographic variables. Other factors, not related to victimization, could explain part of the remaining variance; future studies explaining poor mental and physical health of children should also identify the role of protective factors: coping skills, resilience, and family functioning.

Preventing negative mental and physical health consequences is essential for reducing the risk of development of further problems; in this regard the present study has shown how internalizing symptoms were related to different forms of victimization both related to the home environment as well as to the school; multiple experts as well as professionals practicing in the field of children welfare should jointly work for reducing the burden of suffering of these youngsters.

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