

THE CHILDREN'S COPING STRATEGIES CHECKLIST-REVISION1: A VALIDATION STUDY IN THE ITALIAN POPULATION

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This study was aimed to validate the Italian version of the Children's Coping Strategies Checklist-Revision1 (CCSC-R1; Ayers & Sandler, 1999). Seven hundred and forty-seven youngsters (50.5% boys) from two age groups (children: aged 9-10; early adolescents: aged 11-14) participated in the study. Dimensionality of the CCSC-R1 was explored by means of confirmatory factor analyses and testing alternative models. The scale internal consistency and invariance over age and gender were examined, as well as gender- and age-related differences in the CCSC-R1 scores. The scale concurrent validity was explored by investigating the associations of the CCSC-R1 dimensions with forms of involvement in bullying and social status among peers in a subsample ($N = 255$). Analyses provided evidence that a five-factor structure model was most effective. Internal validity of the scale and its partial scalar invariance over age and gender were confirmed. Several of the CCSC-R1 dimensions were associated with involvement in bullying and social status in the expected directions.

Key words: Coping measure; Italian validation; Childhood; Adolescence; Gender.

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INTRODUCTION

The development of the ability to adapt to stress and adversity is an important asset, which coping research explores. Coping has been defined as "conscious, volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances" (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001, p. 89).

In the literature on coping among children and adolescents, dichotomic conceptualizations of coping strategies are generally proposed (Hampel & Petermann, 2005) by distinguishing problem-focused from emotion-focused coping (e.g., Compas, Malcarne, & Fondacaro, 1988), approach from avoidant coping (Roth and Cohen, 1986), and primary from secondary control coping (Rothbaum, Weisz, & Snyder, 1982). In each dichotomy, the former kinds of strategies (problem-focused, approach, and primary control coping) are aimed to modify the stressful situation or individual responses, whereas the latter clusters of strategies (emotion-focused, avoidant, and secondary control coping) are aimed to regulate stress-related negative emotions. As suggested by Compas et al. (2001), these coping categorizations may be insufficient to capture the diversity and complexity of the ways that children and adolescents cope with stress. In light of

this, Compas and colleagues highlighted that recent theoretical models of coping tend to propose multiple broad dimensions and specific categories or subtypes of coping.

In the same vein, Skinner, Edge, Altman, and Sherwood (2003) observed that “coping is an *organizational construct* used to encompass the myriad actions individuals use to deal with stressful experiences” (p. 217). According to these authors, the structure of coping spans the conceptual space between singular responses of coping (i.e., “I read everything I could find about it”) and the adaptive processes intervening between stress and its psychological, social, and physiological outcomes. Skinner and colleagues also pointed out the need of distinguishing two sets of categories with respect to their functions in mediating the effects of stress: a set of lower-order mutually exclusive and exhaustive categories (e.g., problem solving, rumination, escape), in which classifying the single instances of coping; a set of multidimensional and multifunctional higher-order categories (e.g., approach, emotion-focused coping, accommodation), and in which classifying the lower-order categories according to their adaptive functions.

After examining about 100 different coping category systems, Skinner and colleagues (2003) concluded that only four category systems are empirically constructed and theory-based. These systems are also the only ones that have been subjected to confirmatory statistical techniques by testing models in which multiple lower-order ways of coping were specified as included inside higher-order categories. One of the four ratified category systems was the Children’s Coping Strategies Checklist (CCSC), proposed by Ayers, Sandler, West, and Roosa (1996). The CCSC is a dispositional measure of coping referring to problems in general and consisting of 45 items which are organized in 11 subscales, which assess different kinds of coping strategies.

Ayers and colleagues analyzed several alternative factor structures of the CCSC in children and early adolescents (fourth-grade through sixth-grade), assuming two theoretical models of coping: problem- versus emotion-focused model proposed by Lazarus and Folkman (1984), and the approach-??? versus avoidance-focus model, proposed by Billings and Moos (1981), and Ebata and Moos (1991). The first model of the CCSC structure to be tested included only two factors representing problem- and emotion-focused coping, and approach and avoidance coping. This model did not provide an adequate fit. An alternative five-factor model was then tested, in which the 11 lower-order categories were hypothesized to fit into five higher-order categories: problem-focused strategies (including cognitive decision making and direct problem solving), direct emotion-focused strategies (including seeking understanding, positive cognitive restructuring, and expression of feelings), distraction strategies (including physical release of emotions and distracting actions), avoidance strategies (including avoidance actions and cognitive avoidance), and support-seeking strategies (including problem-focused support and emotion-focused support). Even this five-factor model did not fit the data well.

The best fitting structure was that in which the 11 scales were loaded on four factors: “active coping” (represented by cognitive decision making, direct problem solving, seeking understanding, positive cognitive restructuring, expressing feelings), “social support” (represented by emotion-focused support and problem-focused support), “distraction” (represented by distracting action and physical release of emotions), and “avoidance” (represented by cognitive avoidance and avoidant action). In 1999, Ayers and Sandler developed the revised version of the CCSC scale, namely the Children’s Coping Strategies Checklist-Revision1 (CCSC-R1). Our study aimed to validate the Italian version of the CCSC-R1.

THE CHILDREN'S COPING STRATEGIES CHECKLIST-REVISION 1

After creating the CCSC measure, Ayers and Sandler (1999) were interested in further investigating and discriminating between various forms of both positive cognitive restructuring and cognitive avoidance dimensions of coping. Thus the authors proposed a revised and more extended version of the CCSC — the CCSC-R1 — which, in its final version, contains 54 items organized in 13 subscales. In the revised measure, the positive cognitive restructuring scale contains the positivity, control, and optimism subscales, with the last coping dimension still conceptualized reframing the stressor in ways that emphasize the more positive aspects of the situation. In the CCSC-R1, the cognitive avoidance dimension of the CCSC was broken down into two underlying dimensions — repression and wishful thinking — and these two subscales were combined with avoidant actions dimensions in order to represent the avoidance latent factor. As a consequence, the CCSC-R1 includes 13 subscales, loading five dimensions: problem-focused coping and positive cognitive restructuring (which are considered subclassifications of active coping), distraction coping strategies, avoidance coping strategies, and support-seeking strategies. Both problem-focused coping and positive cognitive restructuring are considered dimensions of active coping. The problem-focused coping dimension embodies the cognitive decision making (CDM), direct problem solving (DPS), and seeking understanding (SU) subscales. The positivity (POS), control (CON), and optimism (OPT) subscales are grouped in the positive cognitive restructuring dimension. The distracting actions (DA) and physical release of emotions (PRE) subscales are grouped in the distraction coping strategies factor. The avoidant actions (AVA), repression (REP), and wishful thinking (WISH) subscales are grouped in the avoidance coping strategies factor. Lastly, the support-seeking strategies comprise the support for actions (SUPA) and support for feeling (SUPF) subscales.

The CCSC-R1 measure was used flexibly by Ayers and Sandler's (1999) research group, according to the nature of the research questions and practical issues. For instance, in a study by Sandler, Tein, Metha, Wolchik, and Ayers (2000), all the 13 subscales were grouped to assess only two categories — active coping and avoidance coping. However, in their research, Ayers and Sandler never tested the structure of the CCSC-R1 by performing confirmatory factor analysis of the original four-factor structure. Furthermore, Ayers and Sandler also proposed a five-factor structure of the measure as a possible alternative to the four-factor structure. In it, the two scales of the active coping strategies factor (the positive cognitive restructuring scale and the problem-focused coping scale) loaded on two separate factors. Actually, another study (de Boo & Wicherts, 2009) gave some support to this five-factor structure, proving it superior to the four-factor structure and to a one-factor pattern in which all the 54 items were assumed to load on the same factor.

COPING AND CHILD SOCIAL ADJUSTMENT

Coping researchers argue that the way children deal with stress can mediate or moderate the effects of adverse life events and conditions on the child's emotional and behavioral adjustment (e.g., Clarke, 2006; Compas et al., 2001; Di Blasio, Camisasca, & Procaccia, 2007; Fields & Prinz, 1997; Skinner et al., 2003). Several works indicated that active coping is associated with

a good social adjustment, whereas avoidance and distraction can increase the risk of maladjustment. In a comprehensive review of the literature on coping among youth related to child adjustment, Compas et al. found that two classes of active coping — problem-focused coping (e.g., problem solving, information seeking, and problem-focused support) and engagement coping (e.g., emotional expression and support seeking) — were associated with fewer internalizing and externalizing problems, and with greater social and academic competence. In a meta-analysis, Clarke (2006) examined the relationship between active coping and psychosocial health among youth. Active coping and psychological functioning were associated, even if the magnitude of this relationship was small, and mean effects were moderated by stressor controllability. In the context of controllable stressors, such as arguments with peers, the use of active coping strategies was related to healthy social and behavioural functioning. Conversely, the attempt to actively resolve uncontrollable interpersonal stressors, such as parental conflict or illness, was linked to poorer social competence and greater behavioral problems than other coping strategies.

Another study (Jaser et al., 2007) suggested that the type of stressors moderates the effects of coping strategies on child adjustment. The authors examined parents' and adolescents' self-reports of coping in response to family and peer stressors in adolescent children of parents with a history of depression. Results indicated that mean levels of coping were similar across situations, as adolescents reported greater use of secondary control coping (e.g., acceptance, distraction) than primary control coping (e.g., problem solving, emotional expression) or disengagement coping (avoidance) with both types of stress. Additionally, fewer symptoms of self-reported anxiety/depression and aggression were related to using secondary control coping strategies in response to family stress and primary control coping in response to peer stress.

A few analyses also explored the associations between coping and child adjustment in peer-bullying situations (Andreou, 2001; Konishi & Hymel, 2009; Olafsen & Viemerö, 2000). In such contexts, youngsters can participate with six different roles (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996): the victim, the bully (overlapping with bully-victims), the bully assistant, the bully reinforcer, the victim defender, and the outsider (passive bystander). The bully, the bully assistant, and the bully reinforcer are pro-bully roles, and are usually very strongly positively associated to each other.

Andreou (2001) examined the relationship between bully/victim role and coping strategies used by children and early adolescents (9-12 years) when confronted with a peer argument at school. Results showed that, compared to their peers, children who bully (both bullies and bully-victims) were less likely to employ problem-focused strategies where victims used more distraction strategies than bullies and peers not involved in bully/victim relationships.

In a recent study, Konishi and Hymel (2009) explored the role of coping strategies in reducing the likelihood of bullying in response to stress (major life events and daily hassles) among children and early adolescents (grades 5-7). The authors hypothesized that using active and distraction strategies of coping moderated the association between stress and bullying behavior. Results provided support for the moderation effects of distraction coping strategies but failed to demonstrate the impact of the active coping strategies. Children who used distraction coping were more likely to bully when under stress. For children who did not rely on distraction coping, the stress levels did not influence bullying. However, this pattern of associations was predominantly evident for girls.

In a research (Caravita & Dama, 2008) focusing on possible traumatic symptoms related to victimization in bullying situations, coping strategies (avoidance) moderated the associations between peer-victimization and anxious traumatic symptoms, among boys but not among girls. To the best of our knowledge, only one study (Pozzoli & Gini, 2010) explored the association of coping strategies with defending and passive bystanding behavior in bullying situations among early adolescents. Findings from this study gave some evidence that problem-solving coping strategies were positively associated with active help toward the victim and negatively related to passive bystanding. In contrast, distancing strategies were positively associated with passive bystanding, and negatively associated with defending behavior when reported by teachers.

Beyond social behavior, even social status among peers is considered a good indicator of child adjustment (for a review see Prinstein, Rancourt, Guerry, & Browne, 2009). In the recent literature, two forms of social position within the peer group were distinguished and were recognized to be distinctly associated to social behavior: social preference, namely the level of being accepted by peers, and perceived popularity, namely the level of influence and visibility within the peer group (e.g., Parkhurst & Hopmeier, 1998; for recent reviews, Cillessen, 2009; Hymel, Closson, Caravita, & Vaillancourt, 2010). The literature on status agrees that low levels of social preference are associated with increased maladjustment, including internalizing and externalizing symptoms, antisocial and aggressive behavior (Prinstein et al., 2009). In contrast, there is some evidence that a high status as perceived popular is likely to be positively associated to aggressive behavior, including bullying, and to risky behaviors, such as sexual risk behaviors and alcohol use (e.g., Mayeux, Sandstrom, & Cillessen, 2008). As far as we are aware, no studies have directly explored the association between coping and social status. However, based on the reviewed literature on status and social behaviors, it is conceivable that problem-focused and social support strategies of coping may be positively associated with high social preference status, while avoidance and distraction strategies are likely to be linked to a low social preference status and a high perceived popularity status.

GENDER AND AGE DIFFERENCES IN CHILDREN AND ADOLESCENTS' COPING STRATEGIES

Although some discrepancies in gender differences in coping strategies exist in the literature, several consistent findings emerged. Gender differences were found in the support-seeking strategies during adolescence. Girls are more likely to seek social support in response to stress compared to boys (e.g., Ebata & Moos, 1994; Frydenberg & Lewis, 1993; Hampel & Petermann, 2005). With regard to other coping strategies, findings are less consistent. For instance, some research showed that girls use more active approach coping strategies than boys (Frydenberg & Lewis, 1993; Griffith, Dubow, & Ippolito, 2000; Herman-Stahl, Stemmler, & Petersen, 1995; Winkler Metzke & Steinhausen, 2002), whereas boys are more likely to endorse avoidance coping strategies (Eschenbeck, Kohlmann, & Lohaus, 2007; Hampel & Petermann, 2005; Nolen-Hoeksema & Girgus, 1994; Winkler Metzke, & Steinhausen, 2002). In contrast, other studies discovered that girls score higher in avoidance coping (Frydenberg & Lewis, 1993; Griffith et al., 2000). Regarding distraction strategies, some works reported that early adolescent girls use less distraction strategies than boys (Hampel & Petermann, 2005), while Compas and colleagues (1988) observed greater use of these strategies by girls in comparison to boys.

Some research found no differences in coping styles between girls and boys in childhood (Altshuler & Ruble, 1989; Curry & Russ, 1985; Spirito, Stark, Grace, & Stamoulis, 1991), where other studies provided evidence that girls use more social support-seeking and problem-solving coping than boys (Causey & Dubow, 1992; Eschenbeck et al., 2007; Spirito et al., 1991). These latter data are comparable, to some extent, with research on adolescents.

With regard to age differences, some controversial results were obtained. Several research projects showed an increase by age for approach- or problem-focused coping (Ebata & Moos, 1994; Griffith et al., 2000; for a review see Fields & Prinz, 1997). In line with these results, Eschenbeck et al. (2007) reported that late primary school children score lower in problem solving than adolescents, especially for social stressors. Other studies provided some evidence that, compared to older youth, primary school children prefer both support-seeking and direct action strategies, including cognitive decision making and cognitive restructuring coping (Rossman, 1992; Ryan, 1989; Wertlieb, Weigel, & Feldstein, 1987). Furthermore, other research did not evidence developmental changes in problem-focused coping and support seeking, giving some evidence of stability over time for these strategies during late childhood and adolescence years (Causey & Dubow, 1992; Compas et al., 1988; Donaldson, Prinstein, Danovsky, & Spirito, 2000; Seiffge-Krenke, 1993; Wertlieb et al., 1987). With regard to emotion-focused coping (avoidance, distraction, and relaxation), the majority of studies found age-dependent increases in this coping strategy among children and adolescents aged 5 to 17 years (Compas et al., 1988; Frydenberg & Lewis, 1993; Rossman, 1992; Ryan, 1989). However, other studies reported decreases in distraction with increasing age from childhood to adolescence (Donaldson et al., 2000; Eschenbeck et al., 2007; Hampel & Petermann, 2005; Spirito et al., 1991).

AIM OF THE STUDY

The first aim of this study was to examine and test the factor structure of the Italian version of the CCSC-R1 in a sample of children and early adolescents (aged 7-14 years). Confirmatory factor analyses were performed, in which two alternative factor models (see Table 2) were compared: a four-factor model, in accordance with the structure found by Ayers et al. (1996); a five-factor model, proposed by Ayers and Sandler (1999) and confirmed by de Boo and Wichers (2009). In the five-factor model, the scales assessing problem-focused coping were hypothesized to load two separate factors — problem-focused strategies and positive cognitive restructuring. Both models were also tested in comparison with a one-factor model in which all the 54 items of the scale were specified as loading a unique factor. The second aim of the study was to test the invariance of the scale over age and gender, as well as the scale internal validity. Lastly, the third aim was to explore the concurrent validity of the Italian CCSC-R1 with reference to forms of involvement in bullying, and dimensions of social status among peers (social preference and perceived popularity). Distraction and avoidance were expected to be positively associated with pro-bully roles, low social preference status, and high perceived popularity, and negatively with defending. Problem-focused coping and support-seeking strategies might be positively associated with defending and negatively with pro-bully roles and low social status.

METHOD

Participants

Participants were 747 children (50.5% boys) aged 7-14 years ($M = 10.5$, $SD = 1.90$), pupils of three primary and three junior high schools located in Milan and its province. The socio-economic status of the participants' families was assessed by asking for parents' qualifications and jobs; 36.5 % of participants were from the middle-low class, 45.3 % from the middle class, and 18.2 % from the middle-high class. Schools that agreed to participate in the present study were recruited through a standard procedure that included introductory meetings with school principals and teachers, and letters describing the goals and procedures of the research. The parents of all participants signed consent forms which described the research project and its goals, the voluntary nature of participation, and the confidentiality of the data collected.

Instruments

Children's Coping Strategies Checklist-Revision1. The Italian version of the CCSC-R1 was translated by two independent translators. The translation was also verified through backtranslation. It was ensured that the meaning and phraseology of the original CCSC-R1 was retained in the Italian version. The CCSC-R1 contained 54 statements all starting with "If I have a problem" followed, for example, by a statement such as "I tell others how I would like to solve it." The 54 items were organized in 13 subscales. Children were requested to assess how frequently they usually adopted the coping strategies described in the item on a 4-point Likert scale: *never* (1), *sometimes* (2), *often* (3), and *always* (4). Scales, subscales, and examples of items are presented in Table 1. For each scale and subscale, the score is the mean of scores of the scale items.

Peer nominations of bullying and defending behavior. Forms of participation in bullying were measured through 16 peer nomination items describing behaviors enacted in bullying situations (Participant Roles Questionnaire, PRQ; Menesini & Gini, 2000; Salmivalli & Voeten, 2004). After receiving a definition of bullying, participants were asked to nominate up to five classmates who fitted each of the 16 behavioral descriptions. For each nominated classmate, participants were asked to indicate whether he/she *sometimes* (scored as 1) or *often* (scored as 2) showed that behavior. Fifteen items of the PRQ questionnaire (Salmivalli & Voeten, 2004) represent five scales, each including three items, assessing the roles of: ring-leader bully (e.g., "Starts bullying"; Cronbach's alpha = .95); bully assistant (e.g., "Joins in the bullying, when someone else has started it"; Cronbach's alpha = .94); bully reinforcer, the child that does not directly participate in bullying, but supports the bully (e.g., "Incites the bully by shouting or saying: *Show him/her!*"; Cronbach's alpha = .80); victim defender (e.g., "Tries to make the others stop bullying"; Cronbach's alpha = .90); and outsider, the child that takes sides neither with the bully nor with the victim (e.g., "Doesn't take sides with anyone"; Cronbach's alpha = .83). Being victimized was assessed by only one item (i.e., "Being victimized"; Menesini & Gini, 2000). For each item, the score was the sum of the received peer nomination, each nomination being weighted for the frequency of the behavior, after standardization by class. For each scale, the score was the mean of the scale items.

TABLE 1
 Scales, subscales, internal consistency (Cronbach's alphas), homogeneity (mean interitem correlation),
 and range of item-remainder correlations of the CCSC-R1

	Chronbach's alpha	M Interitem Correlation	Range Corrected Item – Total Correlations
Problem-focused coping	.80	.25	.31-.56
Cognitive decision making (four items; e.g., "You thought about what you needed to know before")	.54	.25	.26-.42
Direct problem solving (four items; e.g., "You did something to solve the problem")	.59	.27	.31-.41
Seeking understanding (four items; e.g., "You tried to understand it better by thinking more about it")	.63	.30	.36-.46
Positive cognitive restructuring	.77	.22	.27-.50
Positivity (four items; e.g., "You tried to notice or think about only the good things in your life")	.56	.24	.32-.36
Control (four items; e.g., "You told yourself you could han- dle whatever happens")	.60	.27	.27-.47
Optimism (four items; e.g., "You told yourself that things would get better")	.61	.28	.23-.49
Distraction strategies	.77	.27	.37-.55
Distracting actions (five items; e.g., "You watched TV")	.62	.25	.35-.41
Physical release of emotions (four items; e.g., "You played sports")	.66	.33	.41-.50
Avoidance strategies	.69	.15	.10-.48
Avoidant actions (four items; e.g., "You tried to stay away from things that made you feel upset")	.53	.22	.20-.45
Repression (four items; e.g., "You tried to put it out of your mind")	.49	.19	.23-.31
Wishful thinking (four items; e.g., "You wished that things were bet- ter")	.52	.22	.21-.40
Support-seeking strategies	.83	.34	.31-.65
Support for actions (five items; e.g., "You talked to someone who could help you solve the problem")	.72	.33	.32-.59
Support for feelings (four items; e.g., "You told people how you felt about the problem")	.74	.42	.51-.56

Social preference and perceived popularity. Social preference and perceived popularity were assessed by means of four peer nomination items. Participants nominated same- and cross-gender classmates they liked the most, they liked the least, and they thought were the most and the least popular kids (Caravita, Di Blasio, & Salmivalli, 2009; Cillessen & Mayeux, 2004). Peer nominations were limited (up to five). According to the procedure proposed in the traditional sociometric literature (e.g., Cillessen & Mayeux, 2004; Coie, Dodge, & Coppotelli, 1982), after summing and standardizing by class the peer nominations for each item, two combined indices were computed: nominations as the least liked were subtracted from nominations as the most liked to assess social preference; nominations as the least popular were subtracted from nominations as the most popular to assess perceived popularity. Final scores for social preference and perceived popularity were the two subtraction indices after standardization by class (Cillessen, 2009).

Procedure

This study was part of a larger research project on child and adolescent adjustment. All participants of the research project filled in the CCSC-R1 questionnaire. Furthermore, a subsample of 271 early adolescents also completed the PRQ questionnaire on bullying and the social status questions. The CCSC-R1 questionnaire was administered in school classrooms during regular class time at the convenience of participating teachers, together with the PRQ questionnaire and the social status questions for the subsample in which involvement in bullying was assessed. The administration procedure was conducted by research assistants, who helped students if they had difficulty understanding any of the questions. For the youngest participants (primary school children) research assistants also read the questionnaires aloud to ensure that students with varying reading levels kept pace with the administration. Completion of the measures took approximately one hour.

STRATEGY OF ANALYSIS

The dimensionality of the CCSC-R1 was tested by performing confirmatory factor analyses (MPlus 5.0; Muthén & Muthén, 1998-2007). Estimator ML (maximum likelihood estimation) was used to test the models, obtain the modification indices, and perform Chi-square difference tests. Goodness of fit of the tested models was mainly evaluated by considering the Chi-square which estimates the extent to which the estimated covariance structure is different from the observed covariance structure. Chi-square needs to be nonsignificant ($p > .05$) for models to have an adequate fit. Because the Chi-square index is very sensitive to the sample size, becoming significant with larger samples, the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973) were also used. CFI and TLI both compare the model fit with that of a null model which assumes the independence of the variables in the model; they evaluate the adaptation of the estimated model to the observed data. These indices are acceptable when equal or superior to .90, and good when equal or superior to .95. The Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Re-

sidual (SRMR) index were computed in order to estimate the residuals not explained by the model. RMSEA and SRMR should be equal to or less than .08 for models with an adequate fit; for models with a good fit, RMSEA and SRMR should be equal to or lower than .05. Alternative models were compared, based on the absolute difference of each model's Chi-square. The best fitting model was accepted for further analyses, and its psychometric properties were examined. Cronbach's alpha indices, mean inter-item correlations, and range-corrected item-total correlations (the correlation between an item and the scale score without that item) were computed for the final model emerged in the CFAs. Our aim was to test the internal consistency of the Italian CCSC-R1. MANOVAs and two-way ANOVAs were performed to analyze age- and gender-related differences for coping. The early adolescence subsample was also administered PRQ and social status measures; associations between coping and social behavior related to bullying and social status were explored through Pearson correlations and regression analyses.

RESULTS

Study Sample

Missing data were handled by following the procedure recommended by de Boo and Wicherts, (2009). The results of 20 respondents were excluded because they missed too many items (i.e., more than three per questionnaire or more than one per subscale). Other missing items were replaced by the mean item score of the total sample. As a consequence, results of the coping indices (CCSC-R1) were analyzed for 727 children (50.6% boys); the relationship between the CCSC-R1 and child involvement in bullying and social status were analyzed for a subgroup of 255 children (44.9% boys). Boys and girls did not differ significantly in age ($t < 1$) in the total sample.

Confirmatory Factor Analyses

In accordance with the procedure by Ayers et al. (1996) the dimensionality of the CCSC-R1 was examined by comparing the fit indices of three CFA models: a first model, in which the subscale scores were specified as loading a unique factor; a second CFA model, in which the subscale scores loaded the four-factor model found by Ayers et al. (1996); a third CFA model testing a five-factor structure (Ayers & Sandler, 1999; de Boo & Wicherts, 2009), in which the positive cognitive restructuring and the direct problem solving were distinct dimensions, loaded by three subscales each (Table 2).

The one-factor model showed a poor fit: $\chi^2(65) = 912.59$, $p \cong .00$; CFI = .73; TLI = .67; RMSEA = .134; SRMR = .084. Fit indices of the four-factor model were acceptable: $\chi^2(58) = 327.64$, $p \cong .00$; CFI = .91; TLI = .88; RMSEA = .080; SRMR = .053, but the Modification Indices suggested different loadings, thus giving some support to the five-factor model which also obtained an adequate fit: $\chi^2(54) = 240.84$, $p \cong .00$; CFI = .94; TLI = .91; RMSEA = .069; SRMR = .043, significantly better than the fit of the four-factor model, $\Delta\chi^2(4) = 86.8$, $p < .0001$. Thus, the five-factor model (Figure 1) was retained as the best one.

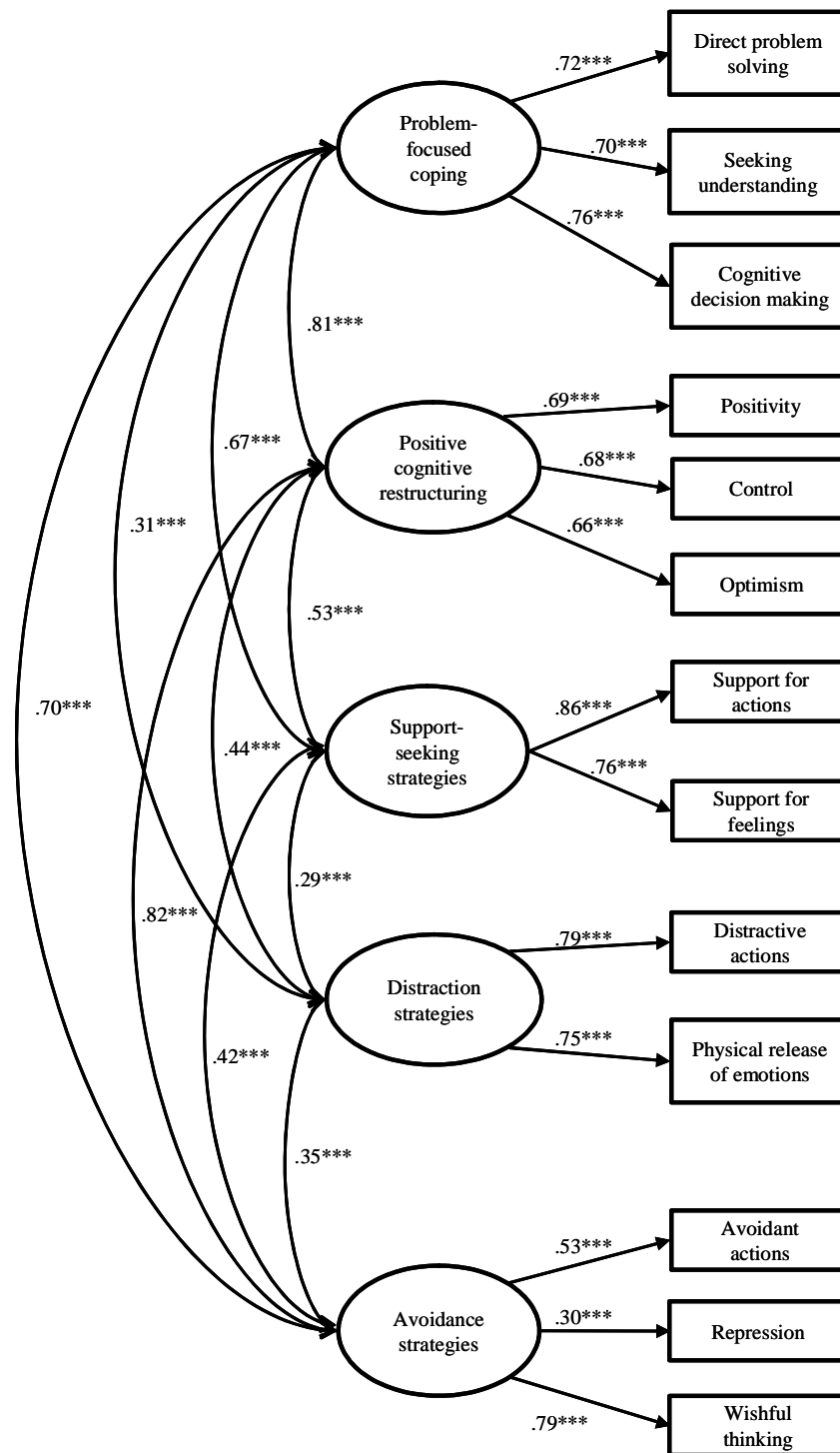
TABLE 2
 Fit statistics of Confirmatory Factor Analyses

No.		$\chi^2(df)$	$p \cong$	CFI	TLI	RMSEA	CI _{90%}	SRMR	χ^2/df
Model fit of the CCSCR1 Cmf									
1	One-factor model	915.59 (65)	.00	.73	.67	.134	.13-.14	.084	14.09
2	Four-factor model	327.64 (58)	.00	.91	.88	.080	.07-.09	.053	5.64
3	Five-factor model	240.84 (54)	.00	.94	.91	.069	.06-.08	.043	4.46
	Among children	196.41 (54)	.00	.92	.88	.077	.07-.09	.050	3.64
	Among adolescents	136.14 (54)	.00	.94	.91	.073	.06-.09	.049	2.52
	Among boys	120.83 (54)	.00	.97	.94	.058	.04-.07	.039	2.24
	Among girls	171.57 (54)	.00	.92	.88	.078	.07-.09	.053	3.18
Equality constraints over age groups									
4	Configural invariance (108)	332.55	.00	.93	.90	.076	.07-.09	.050	3.08
5	Metric invariance (116)	340.35	.00	.93	.90	.073	.06-.08	.052	2.94
6	Scalar invariance (124)	369.28	.00	.92	.90	.074	.07-.08	.054	2.98
7	Partial* scalar invariance (123)	356.87	.00	.93	.91	.072	.06-.08	.052	2.90
Equality constraints over gender									
8	Configural invariance (108)	292.39	.00	.94	.93	.069	.06-.08	.047	2.71
9	Metric invariance (116)	296.75	.00	.94	.92	.066	.06-.08	.050	2.56
10	Scalar invariance (124)	355.72	.00	.93	.91	.072	.06-.08	.053	2.87
11	Partial** scalar invariance (121)	309.76	.00	.94	.92	.066	.06-.08	.050	2.56

Note. * Intercept of Cognitive Decision Making was freed; ** Intercepts of Support for Actions, Physical Release of Emotions, and Cognitive Repression were freed.

Internal Consistency of the CCSC-R1

Cronbach's alphas, along with mean inter-item correlations, corrected item-total correlations for the five-dimension scales of the five-factor model of the Italian CCSC-R1 and the subscales are reported in Table 1. When considering five-dimension scales, alphas of four dimensions were satisfactory (between .77 and .83); the alpha of the avoidance scale was lower than .70 but still acceptable (.69) and higher than the alpha of the scale (.65) originally developed by Ayers and Sandler (1999). Furthermore, only the item "You didn't think about it" increased the alpha of the avoidance scale if removed by a very small increase (from .69 to .70). Therefore, we decided to retain this item as well to preserve the integrity of the scale.



Note. Correlations between factors differ from 1 ($p < .0001$).

FIGURE 1
 Final (five-factor) model of the CCSC-R1.

When examining the subscales, alphas of some of them were lower than .60 (from .49 to .59), but higher than, or similar to, alphas (from .43 to .62) found by Ayers and colleagues (1996). Furthermore, the mean inter-item correlations suggested that these data could be attributed to the limited (only four) number of items in those subscales.

Scale Invariance across Age Groups and Gender

Age. The invariance across age groups (children aged 7-10 vs. early adolescents aged 11-14) of the five-factor CCRC-R1 was investigated by fitting a series of increasingly restrictive models; the fit indices are reported in Table 2. In the first step, the five-factor model was separately tested among children and early adolescents. The five-factor model obtained acceptable indices in both groups, but the fit was slightly better among adolescents. In the second step of the analysis, the configural invariance of the five-factor model was tested by specifying a multigroup analysis in which loadings, intercepts, and residuals were freed to vary across groups. The model obtained an adequate fit, even if the TLI index was a bit too low (Table 2). In the third step, we tested for the scale metric invariance by constraining factor loadings to be equal across groups. The fit of this model was slightly better (Table 2); the Chi-square index increased, but slightly and nonsignificantly, $\Delta\chi^2(8) = 7.81$, *ns*; therefore, this restriction of invariant factor loadings appeared tenable. In the fourth step of the analysis, we also fixed the intercepts of the factor indicators to be equal across groups, in order to test scalar invariance. The model fit was slightly worse and differed significantly from the fit of the configural invariance model, $\Delta\chi^2(16) = 36.74$, $p < .01$. However, after freeing the intercept of the cognitive decision-making scale, the model fit was acceptable and the difference of the Chi-squares of the models turned out to be nonsignificant, $\Delta\chi^2(15) = 24.32$, *ns*. These data provided some evidence for the partial scalar invariance of the scale across the two age groups.

Gender. The invariance of the five-factor CCRC-R1 over gender was investigated by performing the same strategy analysis used to test the invariance across age groups. All the fit indices are displayed in Table 2. First the five-factor model was separately tested among boys and girls. The model fitted the data acceptably, but better among boys than girls, with girls showing a lower TLI index. As a second step, a multigroup analysis was performed by freeing loadings, intercepts, and residuals across groups, to test the configural invariance of the model. The fit of the model was adequate. Then factor loadings were constrained to be equal across groups to test the scale metric invariance. The fit of this model was slightly better (Table 2), and the Chi-square increase was nonsignificant, $\Delta\chi^2(8) = 4.359$, *ns*; therefore, this restriction of gender-invariant factor loadings appeared tenable as well. In the fourth step, we fixed both loadings and intercepts of the factor indicators to be equal across groups, and tested the scalar invariance. The fit of the model was slightly worse and differed significantly from the configural invariance model, $\Delta\chi^2(16) = 63.33$, $p < .001$. However, after freeing the intercepts of three indicators (support for actions, physical release of emotions, and cognitive repression) the model fit was acceptable and the Chi-square difference test turned out to be nonsignificant, $\Delta\chi^2(13) = 17.37$, *ns*. Like for the age groups, it provided some evidence of the partial scalar invariance of the scale over gender.

Age and Gender Differences of the Italian CCSC-R1

We performed a two-way between-subjects MANOVA on the five coping dimensions of the CCSC-R1 in order to analyze the effects of age and gender. The multivariate main effect for age, gender, and the Age \times Gender interaction were all significant: age, $F(5, 717) = 28.86, p < .001$; gender, $F(5, 717) = 6.81, p < .001$; Age \times Gender, $F(5, 717) = 2.99, p < .05$. When looking at the univariate main and interaction effects, the age factor had significant effects for these dimensions: problem-focused, $F(1, 721) = 16.88, p < .001$ (children, $M = 2.53$; adolescents, $M = 2.36$); positive reframing, $F(1, 721) = 12.21, p = .001$ (children, $M = 2.39$; adolescents, $M = 2.25$); distraction, $F(1, 721) = 73.90, p < .001$ (children, $M = 1.86$; adolescents, $M = 2.27$); support, $F(1, 721) = 7.17, p < .01$ (children, $M = 2.15$; adolescents, $M = 2.02$). The following dimensions differed across gender groups: problem-focused strategies, $F(1, 721) = 5.74, p < .05$ (boys, $M = 2.43$; girls, $M = 2.52$); distraction, $F(1, 721) = 4.48, p < .05$ (boys, $M = 2.06$; girls, $M = 1.99$); support, $F(1, 721) = 19.98, p < .001$ (boys, $M = 2.00$; girls, $M = 2.21$). Lastly, the interaction between gender and age had significant effects on the scales: distraction, $F(1, 721) = 5.77, p < .05$ (childhood-boys, $M = 1.86$; childhood-girls, $M = 1.88$; adolescence-boys, $M = 2.38$; adolescence-girls $M = 2.17$). Therefore, the increase of the distraction coping strategies from childhood to adolescence was higher for boys than for girls.

Then, we tested for age- and gender-related differences of the subscale scores, by performing a second two-way MANOVA, having age and gender groups as fixed factors. As for the latent factors, the multivariate main effects of age, gender, and their interaction were significant: age, $F(13, 709) = 15.27, p < .001$; gender, $F(13, 709) = 6.72, p < .001$; Age \times Gender, $F(13, 709) = 2.14, p = .001$. The univariate effects of age were significant with children scoring higher than adolescents for the following subscales: cognitive decision making, direct problem solving, control, optimism, wishful thinking, support for actions. For the distraction action and physical release of emotions subscales, adolescents scored significantly higher than children. With reference to gender effects, girls had higher mean scores than boys in the following subscales: cognitive decision making, seeking understanding, wishful thinking, support for actions, and support for feelings. Boys scored higher than girls in physical release of emotion strategies and repression strategies. The Age \times Gender interaction had significant effects on scores of wishful thinking, $F(13, 709) = 6.94, p < .01$, and physical release of emotions, $F(13, 709) = 10.41, p < .001$. When comparing the childhood and the adolescence groups, girls did not show any substantial changes in both scale scores, while, among boys, adolescents showed lower scores for wishful thinking and higher scores for physical release of emotions than children.

Coping Related to Bullying Roles and Status among Peers

The sub-sample of 255 youngster correlations (Table 3) showed significant associations of the distraction dimension with the roles of bully, bully assistant and bully reinforcer (positive associations), victim defender, and outsider (negative associations). A marginal ($p = .08$) negative association between distraction and the social preference also appeared. Among the other coping dimensions, even support seeking was positively intercorrelated with defending the victim and perceived popularity.

Findings of regression analyses are reported in Table 4. In each regression model, coping dimensions were simultaneously entered as predictors of each of the bullying roles and status dimensions, in order to control for their reciprocal effects on the criterion variables. Problem-focused strategies significantly and negatively predicted changes in the variance of the roles of bully, bully assistant, and bully reinforcer. Distraction strategies were positively associated with the bully assistant role, the reinforcer role, and negatively with the roles of defender and outsider. When looking at the status dimensions, distraction was negatively associated with social preference, whereas support seeking positively predicted changes in the individual variance of the perceived popularity status.

TABLE 3
 Intercorrelations between the CCSC-R1 dimensions and roles of involvement in bullying and social status among peers

	PFC	PCR	Distraction	Avoidance	Support
Bully	-.09	.06	.13*	-.01	.03
Bully assistant	-.10	.05	.17**	-.00	.01
Bully reinforcer	-.09	.06	.18**	.02	.02
Defender	.10	-.04	-.17**	-.01	.13*
Outsider	-.02	-.05	-.17**	-.03	-.10
Victim	.01	.05	-.01	.04	-.03
Social preference	.03	-.01	-.11	.02	.07
Perceived popularity	.06	.07	.08	-.01	.19**

Note. PCF = Problem-focused coping; PCR = Positive cognitive restructuring; Distraction = Distraction strategies; Avoidance = Avoidance strategies; Support = Support-seeking strategies.
 * $p < .05$. ** $p < .01$.

TABLE 4
 Multiple regression analyses on roles of involvement in bullying and social status among peers ($N = 255$)

	Bullying roles					Social status		
	Bully	Bully Assistant	Bully Reinforcer	Defender	Outsider	Victim	SP	PP
PFC	-.22**	-.22*	-.22*	.12	.05	-.03	.01	-.04
PCR	.14	.12	.12	-.08	.01	.08	-.02	.05
Distraction	.12	.17*	.17*	-.20**	-.17*	-.04	.08	.05
Avoidance	-.05	-.04	-.02	-.01	.03	.05	-.14*	-.11
Support	.07	.04	.06	.15*	-.10	-.05	.04	.22**
R^2	.045	.055	.057	.070	.035	.01	.023	.047
$F(5, 250)$	2.38*	2.93*	3.05*	3.74**	1.80*	.37	1.19	2.49*

Note. PFC = Problem-focused coping; PCR = Positive cognitive restructuring; Distraction = Distraction strategies; Avoidance = Avoidance strategies; Support = Support-seeking strategies; SP = Social preference; PP = Perceived popularity.
 * $p < .05$. ** $p < .01$.

DISCUSSION

The aim of the present study was to validate the CCSC-R1 scale for coping (Ayers & Sandler, 1999) and to explore its dimensionality in a population of Italian children and early adolescents (aged 7-14 years). In comparison to each other and to a one-factor structure, two alternative structures of the scale were tested: a four-factor structure which was in accordance with results by Ayers et al. (1996), and a five-factor structure in line with the theoretical suggestions by Ayers and Sandler (1999). Our results indicated that the five-factor model fitted the data better. Among Italian children and adolescents the distracting actions and physical release of emotions subscales were loaded on the distraction strategies dimension; the avoidant actions factor loaded the avoidance strategies, repression, and wishful thinking scales, while the support-seeking strategies dimension was represented by support for actions and support for feelings. Findings on these three factors were in keeping with the previous literature (Ayers et al., 1996; de Boo & Wichers, 2009). However, in the Italian population, the strategies of active coping loaded two separate factors: a factor labeled positive cognitive restructuring, that was represented by the scales of positive thinking, control, and optimism; a factor labeled problem-focused strategies that was represented by the cognitive decision-making scale, the direct problem solving scale, and the seeking understanding scale. The aim of the former cluster of coping strategies is to shift the personal perception of a stressful situation in a more optimistic direction, while the latter cluster of strategies is aimed to directly face the stressing situation. Therefore, the dimensionality of the scale present in the Italian sample substantially replicated the structure of the scale found by de Boo and Wichers (2009) among Dutch youth (9-12 years).

This five-factor structure of the scale proved to be invariant across age and gender for the loadings (metric invariance). Intercepts of 12 out of the 13 subscales were also invariant across age groups, and intercepts of 10 were invariant across gender, thus providing evidence for the partial scalar invariance of the CCSC-R1 across both age and gender. Furthermore, the analysis of the internal consistency showed an acceptable reliability of the five dimensions scores, thus providing a further confirmation of the psychometric validity of the CCSC-R1 questionnaire.

With regard to age-related differences, Italian children reported higher scores than Italian early adolescents on functional strategies of coping, that is: social support, in particular for actions, problem-focused strategies, connected to directly facing and solving the problem, and positive cognitive restructuring, connected to perceiving the stressing situation in an optimistic way and under control. The oldest youngsters were higher on distraction. These results agree with some literature showing that, compared to older youth, primary school children prefer both support-seeking and direct action strategies, including cognitive decision making and cognitive restructuring coping (Rossman, 1992; Ryan, 1989; Wertlieb et al., 1987), and less frequently use emotional regulating coping strategies, such as distraction (Eschenbeck et al., 2007; Rossman, 1992; Ryan, 1989). When examining gender-related differences, in our sample, girls obtained higher levels of cognitive problem-focused coping and strategies of seeking social support for both feelings and actions. In contrast, boys used more distraction coping than girls. These results are in accordance with the literature which gives evidence that girls seek social support to a higher extent than boys, whereas boys are more distracted (Hampel & Petermann, 2005). Furthermore, like in our data, some studies found that girls use more problem-focused strategies than boys (e.g., Griffith et al., 2000; Herman-Stahl et al., 1995; Winkler Metzke & Steinhausen, 2002).

Finally, there is evidence for convergent validity of this scale with reference to social behavior in bullying and status among peers. According to previous literature (Konishi & Hymel, 2009) and hypothesized associations, higher levels of dysfunctional coping, namely distraction, were related to antisocial behaviors, such as bullying, and supporting antisociality of peers. Distraction was also associated with a higher risk of having a low position among peers as social preference, which is considered an indicator of child maladjustment (Prinstein et al., 2009). In contrast, higher levels of problem-focused strategies are connected to lower antisocial behaviors. Higher levels of social support strategies were associated to prosocial behavior, such as defending. Both problem-focused and social support strategies are considered functional forms of coping, increasing the chance of good child adjustment (Compas et al., 2001; Fields & Prinz, 1997).

Among the limitations of this study, we have provided evidence for only partial scalar invariance of the CCSC-R1 across gender and age. However, only one intercept (age) and three intercepts (gender) needed to be freed. With reference to the concurrent validity of the scale, associations between coping, and social status and social behavior for bullying should be further tested in longitudinal data. Moreover, this research was carried out in only one Italian city (Milan) area. Future studies should also examine the concurrent validity of the Italian version of the CCSC-R1 by considering other kinds of social behavior, and forms of child adjustment, explored in contexts other than peer-relationships as well.

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REFERENCES

- Altshuler, J. L., & Ruble, D. N. (1989). Developmental changes in children's awareness of strategies for coping with uncontrollable stress. *Child Development, 60*, 1337-1349.
- Andreou, E. (2001). Bully/victim problems and their association with coping behavior in confliction peer interactions among school-age children. *Educational Psychology, 21*, 59-66. doi:10.1348/000709904773839897
- Ayers, T. A., & Sandler, I. N. (1999, September). Manual for the Children's Coping Strategies Checklist & how I coped under pressure scale. Retrieved June 10, 2006, from Arizona State Prevention Research Center Web site: <http://www.asu.edu/clas/asuprc/>.
- Ayers, T. S., Sandler, I. N., West, S. G., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality, 64*, 923-958.
- Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine, 4*, 139-157. doi:10.1007/BF00844267
- Caravita, S. C. S., & Dama, S. (2008). Vittimizzazione tra pari e sintomi traumatici nella prima adolescenza [Peer-victimization and traumatic symptoms in early adolescence]. *Maltrattamento e Abuso all'Infanzia, 10*, 31-56.
- Caravita, S. C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of empathy and social status on involvement in bullying. *Social Development, 18*, 140-163. doi:10.1111/j.1467-9507.2008.00465
- Causey, D. L., & Dubow, E. F. (1992). Development of a self-report coping measure for elementary school children. *Journal of Clinical Child Psychology, 21*, 47-59. doi:10.1111/j.1467-9507.2008.00465
- Cillessen, A. H. N. (2009). Sociometric methods. In K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships and groups* (pp. 82-99). New York: Guilford.

- Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development, 75*, 147-163. doi:10.1111/j.1467-8624.2004.00660.x
- Clarke, A. (2006). Coping with interpersonal stress and psychosocial health among children and adolescents: A meta-analysis. *Journal of Youth and Adolescence, 35*, 11-24. doi:10.1007/s10964-005-9001-x
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557-570. doi:10.1037/0012-1649.18.4.557
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*, 87-127. doi:10.1037/0033-2909.127.1.87
- Compas, B. E., Malcarne, V. L., & Fondacaro, K. M. (1988). Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology, 56*, 405-411. doi:10.1037/0022-006X.56.3.405
- Curry, S. L., & Russ, S. W. (1985). Identifying coping strategies in children. *Journal of Clinical Child Psychology, 14*, 61-69. doi:10.1207/s15374424jccp1401_10
- de Boo, G. M., & Wicherts, J. M. (2009). Assessing cognitive and behavioral coping strategies in children. *Cognitive Therapy Research, 33*, 1-20. doi:10.1007/s10608-007-9135-0
- Di Blasio, P., Camisasca, E., & Procaccia, R. (2007). Fattori di mediazione dell'esperienza traumatica nei bambini maltrattati [Mediation factors of the traumatic experience in maltreated children]. *Maltrattamento e Abuso all'Infanzia, 9*, 33-59.
- Donaldson, D., Prinstein, M., Danovsky, M., & Spirito, A. (2000). Patterns of children's coping with life stress: Implications for clinicians. *American Journal of Orthopsychiatry, 70*, 351-359. doi:10.1037/h0087689
- Ebata, A. T., & Moos, R. H. (1991). Coping and adjustment in distressed and healthy adolescents. *Journal of Applied and Developmental Psychology, 12*, 33-54. doi:10.1016/0193-3973(91)90029-4
- Ebata, A. T., & Moos, R. H. (1994). Personal, situational, and contextual correlates of coping in adolescence. *Journal of Research on Adolescence, 4*, 99-125. doi:10.1207/s15327795jra0401_6
- Eschenbeck, H., Kohlmann, C. W., & Lohaus, A. (2007). Gender differences in coping strategies in children and adolescents. *Journal of Individual Differences, 28*, 18-26. doi:10.1027/1614-0001.28.1.18
- Fields, L., & Prinz, R. J. (1997). Coping and adjustment during childhood and adolescence. *Clinical Psychology Review, 17*, 937-976. doi:10.1016/S0272-7358(97)00033-0,
- Frydenberg, E., & Lewis, R. (1993). Boys play sport and girls turn to others: Age, gender, and ethnicity as determinants of coping. *Journal of Adolescence, 16*, 253-266. doi:10.1006/jado.1993.1024
- Griffith, M. A., Dubow, E. F., & Ippolito, M. F. (2000). Developmental and cross-situational differences in adolescents' coping strategies. *Journal of Youth and Adolescence, 29*, 183-204. doi:10.1023/A:1005104632102
- Hampel, P., & Petermann, F. (2005). Age and gender effects on coping in children and adolescents. *Journal of Youth and Adolescence, 34*, 73-83. doi:10.1007/s10964-005-3207-9
- Herman-Stahl, M. A., Stemmler, M., & Petersen, A. C. (1995). Approach and avoidant coping: Implications for adolescent mental health. *Journal of Youth and Adolescence, 24*, 649-665. doi:10.1007/BF01536949
- Hymel, S., Closson, L. M., Caravita, S. C. S., & Vaillancourt, T. (2010). Social status among peers: From sociometric attraction to peer acceptance to perceived popularity. In P. K. Smith & C. H. Hart (Eds.), *Handbook of childhood social development* (2nd ed., pp. 375-392). Malden, MA: Wiley/Blackwell.
- Jaser, S., Champion, J. E., Reeslund, K. L., Keller, G., Merchant, M. J., Benson, M., et al. (2007). Cross-situational coping with peer and family stressors in adolescent offspring of depressed parents. *Journal of Adolescence, 30*, 917-932. doi:10.1016/j.adolescence.2006.11.010,
- Konishi C., & Hymel, S. (2009). Bullying and stress in early adolescence: The role of coping and social support. *The Journal of Early Adolescence, 29*, 333-356. doi:10.1177/0272431608320126
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Mayeux, L., Sandstrom, M., & Cillessen, A. H. N. (2008). Is being popular a risky proposition? *Journal of Research on Adolescence, 18*, 49-74. doi:10.1111/j.1532-7795.2008.00550.x
- Menesini, E., & Gini, G. (2000). Il bullismo come processo di gruppo: adattamento e validazione del questionario "Ruoli dei partecipanti" alla popolazione italiana [Bullying as a group process: adaptation and validation of the Participant Role Questionnaire to the Italian population]. *Età Evolutiva, 66*, 18-32.
- Muthén, L. K., & Muthén, B. O. (1998-2007). *Mplus user's guide* (4th ed.). Los Angeles: Muthén & Muthén.
- Nolen-Hoeksema, S., & Girgus, J. S., (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin, 115*, 424-443. doi:10.1037/0033-2909.115.3.424
- Olafsen, R. N., & Viemerö, V. (2000). Bully/victim problems and coping with stress in school among 10- to 12-year-old pupils in Åland, Finland. *Aggressive Behavior, 26*, 57-65. doi:10.1002/(SICI)1098-2337(2000)26:1<57::AID-AB5>3.0.CO;2-I
- Parkhurst, J. T., & Hopmeyer, A. G. (1998). Sociometric popularity and peer-perceived popularity: Two distinct

- dimensions of peer status. *Journal of Early Adolescence*, 18, 125-144. doi:10.1177/0272431698018002001
- Pozzoli, T., & Gini, G. (2010). Active defending and passive bystanding behavior in bullying: The role of personal characteristics and perceived peer pressure. *Journal of Abnormal Child Psychology*, 38, 815-827. doi:10.1007/s10802-010-9399-9
- Prinstein, M., Rancourt, D., Guerry, J., & Browne, C. (2009). Peer reputations and psychological adjustment. In K. Rubin, W. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 548-567). New York: Guilford.
- Rossmann, B. B. R. (1992). School-age children's perceptions of coping with distress: Strategies for emotion regulation and the moderation of adjustment. *Journal of Child Psychology and Psychiatry*, 33, 1373-1397.
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, 41, 813-819. doi:10.1037/0003-066X.41.7.813
- Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42, 5-37. doi:10.1037/0022-3514.42.1.5
- Ryan, N. M. (1989). Identification of children's coping strategies from the school-agers' perspective. *Research in Nursing and Health*, 12, 111-122.
- Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, 22, 1-15. doi:10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
- Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behaviour in bullying situations. *International Journal of Behavioral Development*, 28, 246-258. doi:10.1080/01650250344000488
- Sandler, I. N., Tein, J. Y., Mehta, P., Wolchik, S., & Ayers, T. (2000). Coping efficacy and psychological problems of children of divorce. *Child Development*, 71, 1099-1118. doi:10.1111/1467-8624.00212
- Seiffge-Krenke, I. (1993). Coping behavior in normal and clinical samples: More similarities than differences? *Journal of Adolescence*, 16, 285-304. doi:10.1006/jado.1993.1026
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129, 216-269. doi:10.1037/0033-2909.129.2.216
- Spirito, A., Stark, L. J., Grace, N., & Stamoulis, D. (1991). Common problems and coping strategies reported in childhood and early adolescence. *Journal of Youth and Adolescence*, 20, 531-544. doi:10.1007/BF01540636
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10. doi:10.1007/BF02291170
- Wertlieb, D., Weigel, C., & Feldstein, M. (1987). Measuring children's coping. *American Journal of Orthopsychiatry*, 57, 548-560. doi:10.1111/j.1939-0025.1987.tb03570.x
- Winkler Metzke, C., & Steinhausen, H. C. (2002). Bewältigungsstrategien im Jugendalter [Coping strategies in adolescence]. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 34, 216-226.

APPENDIX
Children's Coping Strategies Checklist-Revision 1: Italian version

Scale	Items			
	<i>Mai</i> [Never] 1	<i>A volte</i> [Sometimes] 2	<i>Spesso</i> [Often] 3	<i>La maggior parte delle volte</i> [Most of the times] 4
	<i>Quando negli ultimi tempi (ad esempio, nell'ultimo mese) hai avuto dei problemi... [When you had problems in the past month...]</i>			
CDM	1.	hai pensato a cosa avresti potuto fare prima di fare qualcosa [you thought about what you could do before you did something]		
POS	2.	hai cercato di prestare attenzione o di pensare solo alle cose belle della tua vita [you tried to only notice or think about only the good things in your life]		
REP	3.	hai cercato di ignorare il problema [you tried to ignore it]		
SUPF	4.	hai raccontato agli altri come ti sentivi rispetto al problema [you told people how you felt about the problem]		
AVA	5.	hai cercato di stare alla larga dal problema [you tried to stay away from the problem]		
DPS	6.	hai fatto qualcosa per rendere le cose migliori [you did something to make things better]		
SUPA	7.	hai parlato con qualcuno che poteva aiutarti a capire cosa fare [you talked to someone who could help you figure out what to do]		
OPT	8.	hai detto a te stesso che le cose sarebbero andate meglio [you told yourself that things would get better]		
DA	9.	hai ascoltato della musica [you listened to music]		
POS	10.	hai ricordato a te stesso che stavi meglio di molti altri bambini [you reminded yourself that you are better off than a lot of other kids]		
WISH	11.	hai fantasticato che tutto fosse ok [you daydreamed that everything was okay]		
PRE	12.	sei andato in bicicletta [you went bicycle riding]		
SUPF	13.	hai parlato dei tuoi sentimenti a qualcuno capace di capirti veramente [you talked about your feelings to someone who really understood]		
SUPA	14.	hai detto agli altri cosa volevi che facessero [you told other people what you wanted them to do]		
REP	15.	hai cercato di togliere il problema dalla mente [you tried to put it out of your mind]		
CDM	16.	hai pensato a cosa sarebbe potuto succedere prima di decidere cosa fare [you thought about what would happen before you decided what to do]		
OPT	17.	hai detto a te stesso che il problema si sarebbe risolto [you told yourself that it would be ok]		
SUPF	18.	hai raccontato agli altri che cosa ti aveva fatto sentire nel modo in cui ti sentivi [you told other people what made you feel the way you did]		
CON	19.	ti sei detto che avresti potuto affrontare il problema [you told yourself that you could handle this problem]		
DA	20.	sei andato a fare una passeggiata [you went for a walk]		
AVA	21.	hai cercato di stare alla larga dalle cose che ti facevano star male [you tried to stay away from things that made you feel upset]		
SUPA	22.	hai detto agli altri in che modo ti sarebbe piaciuto risolvere il problema [you told others how you would like to solve the problem]		
DPS	23.	hai cercato di migliorare le cose cambiando ciò che facevi [you tried to make things better by changing what you did]		
CON	24.	ti sei detto che avevi già affrontato cose come queste nel passato [you told yourself you have taken care of things like this before]		

(appendix continues)

Appendix (continued)

Scale	Items			
	<i>Mai</i> [Never] 1	<i>A volte</i> [Sometimes] 2	<i>Spesso</i> [Often] 3	<i>La maggior parte delle volte</i> [Most of the times] 4
	<i>Quando negli ultimi tempi (ad esempio, nell'ultimo mese) hai avuto dei problemi...</i> [When you had problems in the past month...]			
PRE	25.	hai fatto dello sport [you played sports]		
SU	26.	hai pensato ai motivi per cui questo era capitato [you thought about why it happened]		
REP	27.	non ci hai pensato [you didn't think about it]		
SUPF	28.	hai fatto sapere agli altri come ti sentivi [you let other people know how you felt]		
CON	29.	ti sei detto che avresti potuto affrontare qualunque cosa sarebbe successa [you told yourself you could handle whatever happens]		
SUPA	30.	hai raccontato agli altri cosa ti sarebbe piaciuto che succedesse [you told other people what you would like to happen]		
OPT	31.	ti sei detto che, alla lunga, le cose sarebbero andate per il meglio [you told yourself that in the long run, things would work out for the best]		
DA	32.	hai letto un libro o una rivista [you read a book or magazine]		
WISH	33.	ti sei immaginato le cose come avresti voluto che fossero [you imagined how you'd like things to be]		
CON	34.	hai ricordato a te stesso che sapevi cosa fare [you reminded yourself that you knew what to do]		
CDM	35.	hai pensato a quali cose sarebbe meglio fare per affrontare il problema [you thought about which things are best to do to handle the problem]		
REP	36.	hai proprio dimenticato questa cosa [you just forgot about it]		
OPT	37.	ti sei detto che il problema si sarebbe risolto da solo [you told yourself that it would work itself out]		
SUPA	38.	hai parlato con qualcuno che poteva aiutarti a risolvere il problema [you talked to someone who could help you solve the problem]		
PRE	39.	sei andato sullo skateboard o sui pattini a rotelle [you went skateboard riding or roller skating]		
AVA	40.	hai evitato le persone che ti facevano stare male [you avoided the people who made you feel bad].		
POS	41.	hai ricordato a te stesso che, nel complesso, le cose ti vanno abbastanza bene [you reminded yourself that, overall, things are pretty good for you]		
DA	42.	hai fatto qualcosa come giocare ai video-games o qualche hobby [you did something like video games or a hobby]		
DPS	43.	hai fatto qualcosa per risolvere il problema [you did something to solve the problem]		
SU	44.	hai cercato di capire meglio la situazione, pensandoci sopra di più [you tried to understand it better by thinking more about it]		
POS	45.	hai ricordato a te stesso tutte le cose positive della tua vita [you reminded yourself about all the things you have going for you]		
WISH	46.	ti sei augurato che le cose brutte non accadessero [you wished that bad things wouldn't happen]		
CDM	47.	hai riflettuto su cosa era necessario che tu sapessi per risolvere il problema [you thought about what you needed to know so you could solve the problem]		
AVA	48.	hai evitato il problema andando in camera tua [you avoided it by going to your room]		
DPS	49.	hai fatto qualcosa per ottenere il meglio che potevi dalla situazione [you did something in order to get the most you could out of the situation]		
SU	50.	hai pensato a cosa avresti potuto imparare dal problema [you thought about what you could learn from the problem]		

(appendix continues)

Appendix (continued)

Scale	Items			
	<i>Mai</i> [Never] 1	<i>A volte</i> [Sometimes] 2	<i>Spesso</i> [Often] 3	<i>La maggior parte delle volte</i> [Most of the times] 4
	<i>Quando negli ultimi tempi (ad esempio, nell'ultimo mese) hai avuto dei problemi...</i> [When you had problems in the past month...]			
WISH	51.	ti sei augurato che le cose andassero meglio [you wished that things were better]		
DA	52.	hai guardato la TV [you watched TV]		
PRE	53.	hai fatto un po' di movimento [you did some exercise]		
SU	54.	hai cercato di capire perché accadono cose come questa [you tried to figure out why things like this happen]		

Note. CDM = cognitive decision making; DPS = direct problem solving; SU = seeking understanding; POS = positivity; CON = control; OPT = optimism; DA = distracting actions; PRE = physical release of emotions; AVA = avoidant actions; REP = repression; WISH = wishful thinking; SUPA = support for actions; SUPF = support for feeling.