A Dispositional and Situational Assessment of Children's Coping: Testing Alternative Models of Coping

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ABSTRACT Dispositional and situational measures of children's coping were developed using a theoretically based approach. Two studies ($N_1 = 217$; $N_2 = 303$) assessed the psychometric characteristics of these measures in fourth- through sixth-grade children. Confirmatory factor analyses indicated that a four-factor model of dispositional coping (active, distraction, avoidant, and support seeking) provided a better fit to the data than either the problem- versus emotion-focused (Lazarus & Folkman, 1984) or passive versus active (Billings & Moos, 1981) coping models. The four-factor model was largely invariant with respect to age and gender. Moderate to high correlations were found between the parallel subscales of the dispositional and situational measures of coping. Although the four factor structures of the dispositional and situational measures were generally similar, factor loadings and correlations between dimensions were not equivalent.

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Measuring instruments represent theories of the construct. When researchers make decisions about which items to include in a measure and how the items are to be grouped to form scales, they are developing construct theory (West & Finch, in press-a). However, such decisions are not always explicitly made, which can lead to later complexities in understanding the meaning of the resulting scales. In this article, we consider the development of two measures of children's coping that are based on an explicit construct theory. In Study 1 we use a dispositional version of a coping measure to examine the structure of coping responses, testing two theories proposing different two-dimensional structures (Billings & Moos, 1981; Lazarus & Folkman, 1984) as well as testing a recently proposed multidimensional theory. The findings from the first study are cross-validated and extended in Study 2 using the dispositional measure. In the second study we also examine these dimensions using a situational measure of coping and examine the relationships between the two measures of coping.

Some Issues in Scale Development

Selection of items. Ideally, items should be selected to cover the full domain of the construct being assessed. In practice, some researchers (e.g., Rossman, 1992) have begun with careful content analyses of children's coping responses, attempting to develop a categorization system that is representative of the full range of coping thoughts and behaviors. Items were then written to represent the identified categories of coping. Other researchers (e.g., Colletta, Hadler, & Gregg, 1981; Hyson, 1983; Wertlieb, Weigel, & Feldstein, 1987; Zeitlin, 1980) have developed instruments that relied solely on categorization systems drawn from the theoretical literature, a literature which has emphasized adult coping. Still others (e.g., Wills, 1985) have taken a less theoretical approach, selecting items from previous inventories supplemented by new items to provide a fuller representation of potential coping responses.

Each of the above methods has strengths and limitations. Content analyses often produce a full representation of the domain of the construct, but do not indicate which categories or dimensions are related to important outcomes. Theory-based measures identify promising dimensions, but may overlook other important aspects of the construct. As an example, Band and Weisz (1988) initially used the categories used in the Adult Ways of Coping Scale (Folkman & Lazarus, 1980). They found that 40% of children's coping responses could *not* be categorized

within this system. Finally, more empirical item selection procedures can yield scales that are excellent for prediction of external criteria, but that provide less conceptual clarity about the meaning of the construct.

Conceptual clarity: Exploratory versus confirmatory procedures. Several researchers on adult coping (e.g., Aldwin & Revenson, 1987; Carver, Scheier, & Weintraub, 1989) have recommended that coping instruments be developed using a more theoretical approach. Scales composed of items that are clear measures of the coping dimensions of interest greatly simplify understanding the relationships of each dimension to theoretically linked outcomes. Although theory-based scales can be developed and refined in many ways, methods like item response theory (Waller, Tellegen, McDonald, & Lykken, 1996) and confirmatory factor analysis (Mulaik, 1988; West & Finch, in press-b) provide statistical methods for assuring that each scale is unidimensional and that the items measure the construct of interest. Given the successful test of an a priori theoretical model of the underlying dimensions of coping, the results can be expected to replicate in future samples from the same population.

Measures of children's coping developed using exploratory methods often are difficult to interpret (e.g., Life Events and Coping Inventory, Dise-Lewis, 1988; A-COPE scale, Patterson & McCubbin, 1987a, 1987b; Nighttime Coping Checklist, Mooney, Graziano, & Katz, 1985; Behavior-based Coping Inventory, Wills, 1985). Typically, the items for such instruments are chosen to be diverse examples of potential coping responses. Exploratory factor-analytic procedures are then used to identify the underlying dimensions (factors) represented by these items. The analyst must then infer the meaning of each factor. At times, the resulting scales have been difficult to label and have been linked only loosely to coping constructs in a post hoc fashion. The resulting scales often include items that do not appear to fit together conceptually so that dimensions have been difficult to label. In addition, such scales are at high risk for failing to cross-validate when the factor structure is tested in other samples because some of the factor loadings in the initial sample will have occurred by chance (Horn, 1967; compare Wills, 1985, with Glyshaw, Cohen, & Towbes, 1989, for an illustration). In addition, the method of rotation chosen when conducting an exploratory factor analysis has important implications, in that the choice of an orthogonal rotation is not ideal when studying constructs that are believed to have an underlying common theme.

Theory: Dimensions of Coping

One theoretical distinction made by investigators of both adult and children's coping behaviors is between problem-focused and emotion-focused coping (Compas, Malcarne, & Fondacaro, 1988; Lazarus & Folkman, 1984). Problem-focused coping is aimed at problem solving or doing something to directly alter the level of stress. Emotion-focused coping refers to efforts to manage or reduce the emotional distress associated with a problem situation. Within the children's coping literature, Compas et al. (1988) found that problem-focused coping was negatively correlated with both maternal and child reports of emotional and behavioral problems, whereas emotion-focused coping was positively related to emotional and behavioral problems. However, Stanton and colleagues (Stanton, Danoff-Burg, Cameron, & Ellis, 1994) have recently suggested that the observed relationships between emotion-focused coping and emotional and behavioral problems may be partially spurious due to confounds in the assessment of these two constructs.

An alternative theoretical framework suggested by Moos and his colleagues (Billings & Moos, 1981; Ebata & Moos, 1991) and other researchers in the adult coping literature (e.g., Suls & Fletcher, 1985) has emphasized the focus of the individual's coping efforts. As an example, Moos and his colleagues have classified coping efforts as being either active (approach focus) or passive (avoidant focus). They define active or approach coping as responses that are directed toward the problem. Such responses "reflect active cognitive and behavioral efforts to define and understand the situation and to resolve or master a stressor by seeking guidance and engaging in problem solving activities" (Ebata & Moos, 1991, p. 36). Passive or avoidant responses are indirect methods and "reflect cognitive or behavioral attempts to avoid thinking about a stressor or its implications, to accept or resign oneself to an existing situation, to seek alternative rewards, or to try to manage tension by expressing it openly" (Ebata & Moos, 1991, p. 36). Ebata and Moos found that adolescents who relied proportionally more on active than passive methods had higher levels of well-being and lower levels of distress.

Although some researchers have found encouraging patterns of results when classifying coping using these two theoretical distinctions, others have not found evidence that these general strategies were predictive of psychological adjustment (Tolor & Fehon, 1987; Wertlieb et al., 1987). In studies of adult coping, Carver and colleagues (Carver

et al., 1989; Scheier, Weintraub, & Carver, 1986) have argued that a two-factor distinction between types of coping may be too simplistic, obscuring the discovery of important relations that might exist between other coping factors and measures of adaptation. In support of this argument, researchers have found that various strategies within emotion-focused coping differ not only in terms of their general characteristics (e.g., positive cognitive restructuring, physical exercise) but also in terms of their relation to symptomatology (e.g., Glyshaw et al., 1989; Wills, 1986, 1989). Therefore, further delineation of the dimensional structure of the coping constructs would seem productive.

Further evidence of the multidimensional nature of coping responses is provided by several of the original exploratory factor analyses of coping scales in both the adult (Aldwin & Revenson, 1987; Folkman & Lazarus, 1980; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) and child/adolescent coping areas (Glyshaw et al., 1989; Patterson & McCubbin, 1987b; Wills, 1985). In general, one to two problem-solving factors emerge along with several other factors that appear to be different types of emotion-focused coping. These factors reflect such dimensions as expression of feelings, positive reinterpretation of the event, seeking social support, avoidance, or denial. Because variations in coping responses can have quite different implications for adaptation, researchers may need to develop more complex models of coping behavior as well as more diverse and sensitive measures of coping.

The Present Research

We undertook the development of a new theoretical categorization scheme and two new inventories of children's coping. First, a semi-structured interview was administered to 57 children whose parents had divorced within the previous 2 years in order to assess children's appraisal, coping, and efficacy judgments in response to a specific stressful event (Sandler et al., 1990). Then a content analysis was conducted on children's responses to the interview. The content analysis began with a categorization system based on the existing literature on child and adolescent coping. Forms of coping that were obviously contaminated with psychological symptomatology (e.g., drug and alcohol use) were systematically excluded. The categories were revised to include the full range of the children's responses. The final categorization system proposed 11 conceptually distinct categories that could classify the

vast majority of children's self-reported coping behaviors (Ayers et. al., 1989). Table 1 provides a list of the 11 conceptually distinct coping categories and their definitions. Based on theoretical considerations and earlier work (Ayers, Sandler, West, & Roosa, 1990), the 11 categories were hypothesized to group into 5 higher order dimensions.

Problem-focused strategies. These strategies are represented by the categories of cognitive decision making and direct problem solving. These categories reflect cognitive and behavioral efforts at managing or altering the problem causing the distress. Previous research has shown that children's problem solving is negatively correlated to mental health and substance use and positively correlated with self-efficacy (Glyshaw et al., 1989; Wills, 1986, 1989).

Direct emotion-focused strategies. These are represented by three categories: seeking understanding, positive cognitive restructuring, and expressing feelings. Each of these dimensions reflects efforts to manage the emotional response to a stressful event by focusing directly on it in an active and constructive fashion.

Distraction strategies. These strategies are represented by the categories of physical release of emotions and distracting actions. The underlying similarity between these two dimensions of distraction strategies is that the child or adolescent uses some other activity or stimulus to distract themselves from dealing with or thinking about the problem situation. Distraction strategies are similar to Altshuler and Ruble's (1989) partial avoidance factor.[1]

Avoidance strategies. Avoidance strategies are represented by the categories of avoidant actions and cognitive avoidance. These strategies attempt to manage emotion by trying to avoid or stop thinking about the problem entirely.

Support-seeking strategies. These strategies are comprised of the problem-focused support and emotion-focused support dimensions.

1. The overlap between the model suggested here and Altshuler and Ruble's (1989) model is not perfect. Altshuler and Ruble break down their partial avoidance factors further based on whether they are principally cognitive or behavioral in nature. Because of this further distinction between cognitive and behavioral efforts, their cognitive distraction factor (i.e., partial avoidance) would more closely reflect the cognitive avoidance category that we use.

Table 1
Proposed Dimensions of Children's Coping Styles and Strategies

Coping dimension	Definition
Problem-focused strategies	
Cognitive decision making	This refers to all planning or thinking about ways to solve the problem. It includes thinking about choices, thinking about future consequences, and thinking of ways to solve the problem. It is not simply thinking about the problem, but thinking about how to solve it. It involves the planning and *not* the execution of actions to solve the problem.
Direct problem solving	This refers to efforts to change the problem situation by changing the self or by changing the environment. It involves what one does, *not* what one thinks.
Direct emotion-focused strategies	
Seeking understanding	This includes cognitive efforts to find meaning in a stressful situation or to understand it better. It involves seeking understanding of the situation and *not* seeking to put a positive interpretation on the situation.
Positive cognitive restructuring	This refers to thinking about the situation in a more positive way. It includes thoughts that minimize the problem or the consequences of the problem. Acceptance that one can live with the situation the way it is is optimistic thinking and an example of positive cognitive restructuring.
Expressing feelings	This involves the overt expression of feelings either by an action to express feelings, a verbal expression of feelings, or simply an overt release of emotion. It is a solitary activity and does *not* include discussing feelings with another person. It also does *not* include inappropriately acting out feelings by threatening or hurting another person.

Table 1
Continued

Coping dimension	Definition
Distraction strategies	
Physical release of emotions	This includes efforts to physically work off feelings with physical exercise, play, or efforts to physically relax. There needs to be at least a moderate amount of physical exertion involved, so that very light physical activity for a child (e.g., walking) would not be included here.
Distracting actions	This includes efforts to avoid thinking about the problem situation by using distracting stimuli, entertainment, or some distracting activity. If the distracting activity involves more than moderate physical exertion it should not be included here.
Avoidant strategies	
Avoidant actions	This includes behavioral efforts to avoid the stressful situation by staying away from it or leaving it.
Cognitive avoidance	This includes efforts to avoid thinking about the problem. It includes the use of fantasy or wishful thinking, or imagining that the situation was better. It refers to cognitive activity and *not* behaviors one does to avoid thinking about it.
Support-seeking strategies	
Problem-focused support	This involves the use of other people as resources to assist in seeking solutions to the problem situation. This includes seeking advice or information or direct task assistance and *not* emotional support.
Emotion-focused support	This involves other people in listening to feelings or providing understanding to help the person be less upset.

Since these behaviors were thought to frequently co-occur they were combined to form a higher order construct. We opted to make the distinction on the basis of the "function" of the support, that is, whether the support is sought primarily to assist the child in problem solving or in managing emotions. This distinction not only has the advantage of being able to clearly separate these types of support seeking, but also allows a more distinct test of the problem-focused versus emotion-focused two-factor model of coping.

Summary. These 11 theoretically and empirically based categories of children's coping can be used to evaluate the alternative two-dimensional theoretical models discussed earlier. For the distinction between problem-focused and emotion-focused coping (Compas et al., 1988; Lazarus & Folkman, 1984), the dimensions of cognitive decision making, direct problem solving, and problem-focused support were hypothesized to represent problem-focused coping, whereas the remaining dimensions were hypothesized to represent emotion-focused coping. For the distinction between active (approach) versus passive (avoidance) coping (Billings & Moos, 1981; Ebata & Moos, 1991), the categories of cognitive decision making, direct problem solving, seeking understanding, positive cognitive restructuring, problem-focused support, and emotion-focused support were hypothesized to represent active coping, whereas the remaining dimensions were hypothesized to represent passive coping.

In Study 1, we sought to develop a psychometrically sound coping instrument from a theoretically based approach and to test the resulting five-factor theoretical model. Second, we compared the fit of this new model with two popular alternative theoretical models. Third, we explored possible differences in the factorial structure of coping responses used by younger and older children and by boys and girls.

Study 1

METHOD

Participants

The sample consisted of 217 children in fourth- through sixth-grade classrooms from 10 schools in three different school districts in a southwestern metropolitan area. The sample was composed of 130 (60%) girls and 85 (40%) boys, ranging in age from 9 to 13 years (M = 10.38 years). While we were pre-

cluded in the current data collection in the school context from asking about the children's ethnicity, previous research in the same school districts, using similar sample selection methods (see Short et al., 1995) have reported ethnically heterogeneous samples; as an example, approximately 43% Caucasian followed by Hispanic ($\sim$ 30%) and, in smaller percentages, African American ($\sim$ 20%) and Native American ($\sim$ 7%). The majority of the children were from families of lower-middle to middle income.

Participants for this study were part of a larger project evaluating a school-based prevention program to reduce the risk status of children who perceived their parents as problem drinkers (Roosa, Gensheimer, Ayers, & Short, 1991). Children who perceived that their parents had a drinking problem self-selected into the intervention (see Roosa, Gensheimer, Short, Ayers, & Shell, 1989, for a description of the self-selection procedure). This study is based on data from the second of three test administrations evaluating the prevention program. Children who had participated in the prevention program were excluded from all analyses in this study in order to avoid confounding possible treatment effects of the prevention program with naturally existing coping responses. Children were administered the questionnaires in small groups at their respective schools. All instructions and questions were read aloud by a trained research assistant while children read along.

Instruments

Assessment of children's dispositional coping behaviors. The Children's Coping Strategies Checklist (CCSC; Program for Prevention Research, 1991) items were selected from existing instruments or written so that they reflected the 11 conceptually distinct categories identified in our content analysis. The inventory had gone through two earlier revisions prior to its use in this study (see Ayers et al., 1990; Roosa, Shell, Ayers, Gensheimer, & Short, 1990). Item selection, development, and revision were based on the results of item analysis and confirmatory factor analysis from previous samples (Ayers et al., 1990; Roosa et al., 1990). All items were reviewed by faculty in developmental psychology for age appropriateness. A panel of faculty and graduate students with expertise in children's coping independently classified each of the items into the 11 coping categories. Only items for which there was at least 80% agreement across raters were retained. This process resulted in a 45-item inventory, with 3 to 5 items serving as indicators for each of the 11 coping dimensions.

The Children's Coping Strategies Checklist was developed to be a general measure of children's self-reported coping styles. The following instructions were provided at the beginning of the inventory.

> When faced with a problem, kids do different things in order to solve the problem or to make themselves feel better. Below is a list of things kids

may do when faced with a problem. For each item, select the response that *best* describes how often you do the behavior when you have a problem. There are no right or wrong answers, just say how often *you* do each thing in order to solve the problem or to make yourself feel better.

No specific problem situation was identified in these instructions. After every four to five items, the children were provided with the reminder, "When I have a problem, I . . . ," to ensure that they responded to the items in terms of what they do when confronted with a problem, rather than simply describing the general frequency that they engage in these activities. Children were asked to report on the frequency of their use of these coping strategies during stressful situations using a 4-point Likert scale: never (1), sometimes (2), often (3), and most of the time (4).

RESULTS

Psychometric Characteristics of the Children's Coping Strategies Checklist (CCSC)

Mean item scale scores were created by summing scores on each item within each of the 11 coping categories and then dividing item totals by the number of items within that category. Children had to respond to at least 80% of the items on a scale to receive a score on that scale. Except where indicated these scale scores were used in all of the analyses completed with this sample.

Two criteria were utilized to help evaluate the psychometric characteristics of each of the individual coping subscales: (*a*) coefficient alpha and (*b*) the fit of confirmatory factor analysis (CFA) models for each subscale in which all items representing a specific dimension were hypothesized to load on a single latent factor.

Internal consistency. Coefficient alphas ranged from a low of .34 on the Expressing Feelings subscale to a high of .72 on the Cognitive Decision Making, Seeking Understanding, and Cognitive Avoidance subscales (see Table 2). With the exception of the Expressing Feelings subscale, these alpha coefficients are comparable to other coping instruments for children, with subscales of similar length (i.e., only three to five items per scale; e.g., Glyshaw et al., 1989; Patterson & McCubbin, 1987a; Wills, 1989).[2] The Expressing Feelings subscale was dropped from all

2. Reliability as measured by coefficient alpha increases as the number of items increases. The Spearman-Brown Prophecy formula suggests that if these subscales (except

Table 2

Means, Standard Deviations, Alphas, and Fit of the Single-Factor Models for the Coping Subscales of the Children's Coping Strategies Checklist (CCSC): Study 1

Coping subscale (number of items)	Mean (*SD*)	*n*	Alpha	*n* for alpha	χ^2(df, *n*), *p* level	CFI
Cognitive Decision Making (4)	2.34 (.74)	192	.72	191	$11.50(2, n = 191), p < .003$	.94
Direct Problem Solving (4)	2.30 (.75)	193	.68	187	$.28(2, n = 187), p = .871$	1.00
Seeking Understanding[a] (4)	2.20 (.72)	193	.72	191	$1.49(2, n = 191), p = .476$	1.00
Positive Cognitive Restructuring (4)	2.24 (.72)	192	.68	191	$1.97(2, n = 191), p = .374$	1.00
Expressing Feelings (3)	1.74 (.63)	158[b]	.34	157	—	—
Physical Release of Emotions (4)	1.67 (.67)	194	.64	189	$17.83(2, n = 189), p < .001$	.84
Distracting Actions (5)	2.21 (.66)	194	.60	192	$10.17(5, n = 192), p = .071$	.94
Avoidant Actions (4)	2.45 (.75)	192	.64	191	$2.21(2, n = 191), p = .331$	1.00
Cognitive Avoidance (4)	2.49 (.75)	191	.72	188	$8.17(2, n = 188), p = .017$	.96
Problem-Focused Support (4)	1.87 (.60)	193	.46	192	$.77(2, n = 192), p = .681$	1.00
Emotion-Focused Support (4)	1.83 (.60)	193	.50	191	$2.81(2, n = 191), p = .246$	.98

Note. CFI = Comparative Fit Index. In the cells with dashes the single-factor model could not be evaluated due to fewer than four indicators for the scale/construct.

a. Originally this scale had five items developed and administered to assess this construct. However, one item was dropped (i.e. "Ask God to help me understand it") due to both theoretical reasons and the improvement in the criteria used to evaluate the subscales (i.e., alpha and the fit of the single-factor model). This item had a lower loading on the single-factor model relative to the other items (i.e., a standardized factor loading of .28 compared to a range of .57 to .69 for the other items on this scale). When including this item in the scale, the alpha was .69 and fit of the single-factor model was $\chi^2(5, n = 187) = 5.25, p = .387$, CFI = 1.00.

b. The *n* for this scale is lower due to one incorrect item being used and administered to three classrooms before being discovered and corrected.

further analyses because of poor internal consistency. It should be noted that subscales in the adult measures of coping with similar content as the Expressing Feelings subscale have been identified as being confounded with symptomatology (see Stanton et al., 1994).

Tests of a single factor structure for individual scales. The fit of the single latent factor models for each of the subscales was examined using a series of confirmatory factor analyses. Table 2 indicates that all of the subscales, with the exception of the Physical Release of Emotions subscale, had an acceptable fit ($\geq .90$) to the hypothesized single factor model using Bentler's Confirmatory Fit Index (CFI; Bentler, 1990). Various hypotheses (e.g., skewed distributions, correlated error terms) were considered in evaluating this scale; none of the solutions were satisfactory. We decided that, given the marginal fit (CFI = .84), the Physical Release of Emotions subscale would be retained for further analyses with this data set. Examination of the factor loadings of the items for each of the subscales showed that the vast majority (38 of 41) of the items had factor loadings greater than .40 on their respective subscales.

Evaluation of Coping Models

Table 3 presents the zero-order correlation matrix for the subscales of the Children's Coping Strategies Checklist. The alternative frameworks for describing and classifying coping efforts in children that have been offered in the literature were evaluated using the data gathered. Maximum-likelihood confirmatory factor analyses were conducted using both LISREL 7 (Jöreskog & Sörbom, 1989) and EQS 3.2 (Bentler, 1989) using the covariance matrix. Bentler's CFI and theoretical considerations were used to gauge the goodness of fit of the data.

Emotion- versus problem-focused coping model. We first tested the most widely used distinction in the coping literature, which classifies coping efforts as problem-focused or emotion-focused (Band & Weisz, 1988; Folkman & Lazarus, 1980). The model did not adequately fit the data, $\chi^2(34, n = 183) = 247.03, p < .001$, CFI = .78 (Figure 1, Panel a).

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for Expressing Feelings) were lengthened so that they were each 10 items in length, the internal consistency of the new measures could be estimated as ranging from .68 to .88.

Table 3
Zero-Order Correlations between 10 Coping Subscales of the Children's Coping Strategies Checklist (CCSC): Study 1

Coping subscale	CDM	DPS	SU	PCR	PRE	DA	AVA	CA	PFS	EFS
Cognitive Decision Making (CDM)	—									
Direct Problem Solving (DPS)	.73	—								
Seeking Understanding (SU)	.75	.65	—							
Positive Cognitive Restructuring (PCR)	.57	.62	.52	—						
Physical Release of Emotions (PRE)	.29	.27	.29	.45	—					
Distracting Actions (DA)	.40	.40	.37	.45	.57	—				
Avoidant Actions (AVA)	.43	.47	.50	.49	.22	.32	—			
Cognitive Avoidance (CA)	.59	.58	.58	.54	.26	.44	.64	—		
Problem-Focused Support (PFS)	.50	.44	.48	.53	.39	.35	.33	.43	—	
Emotion-Focused Support (EFS)	.43	.40	.45	.47	.42	.34	.33	.35	.77	—

Note. Listwise deletion of cases with missing values was used; thus the n for all values within the matrix equals 183.
*$p < .05$ for all correlations $\geq \pm.12$
**$p < .01$ for all correlations $\geq \pm.17$
***$p < .001$ for all correlations $\geq \pm.22$.

Active versus passive coping model. We then tested the active (approach) versus passive (avoidance) coping model offered by Moos and his colleagues (Billings & Moos, 1981; Ebata & Moos, 1991).[3] This model (Figure 1, Panel b) also did not yield an adequate fit to the data, $\chi^2(34, n = 183) = 225.94, p < .001$, CFI = .81.

Five-factor model. We then tested Ayers et al.'s (1990) five-factor model of children's coping. The test of this model resulted in an improper solution: The correlation between the problem-focused strategies and the direct emotion-focused strategies latent constructs was greater than 1.0. Examination of the results suggested that the most likely explanation for the improper solution was that these two latent constructs represent a single factor.

Revised four-factor model. Based on theoretical and empirical considerations, an alternative four-factor theoretical model was proposed. The direct emotion-focused strategies construct was eliminated and the Seeking Understanding and Positive Cognitive Restructuring subscales were hypothesized to load with the Direct Problem Solving and Cognitive Decision Making subscales in creating a new construct in which all the scales shared several characteristics. Each involved directly focusing on the stressor to either deal with it cognitively or behaviorally. Furthermore, each of these scales was expected to relate to lower symptoms. This dimension is similar to the "active" (or approach) mode of coping proposed by Moos and his colleagues (Billings & Moos, 1981; Ebata & Moos, 1991) and was labeled "active coping."

The proposed four-factor model is graphically presented in Figure 1, Panel c. The results of the confirmatory factor analysis suggested that the model provided an adequate fit to the data, $\chi^2(29, n = 183) = 69.12, p < .001$, CFI = .96. Comparison of the fit of this four-factor model with the two factor models tested earlier using chi-square difference tests (Bentler & Bonnett, 1980) indicates that the four-factor model provided a significantly better fit to the data than either the emotion- versus problem-focused, $\Delta\chi^2(5, n = 183) = 177.91, p < .001$, or

3. Ebata and Moos (1991) now refer to an approach-oriented versus avoidant-oriented method of coping. In order to avoid confusion with the factors as they have been labeled here, we use the older terms passive versus active. Using the definitions of the new terms, approach versus avoidant, the subscales would still be classified in the same manner.

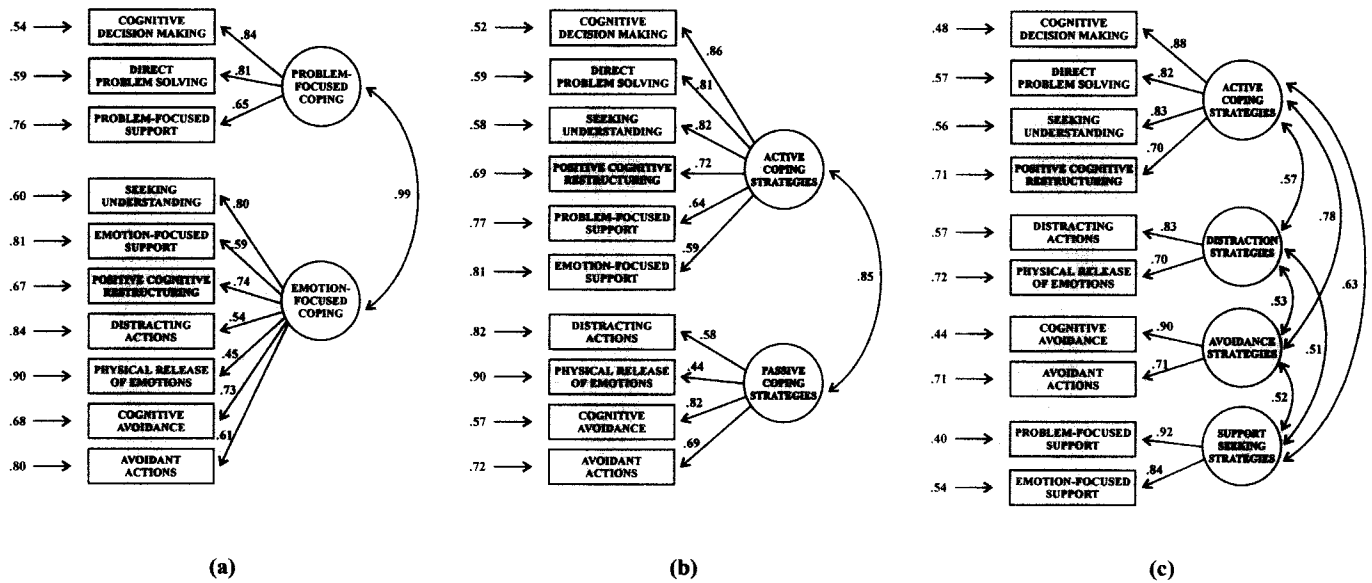

Figure 1

Test of Three Alternative Models of Children's Coping

See note on facing page.

the active versus passive coping models, $\Delta\chi^2(5, n = 183) = 156.82$, $p < .001$, models.

Factorial Invariance of the CCSC across Age and Gender

We then explored the extent to which this model fit the data for boys versus girls and for different age groups within the elementary school-children studied. Box's (1949) *M* test was used as the initial, omnibus test of the equality of the covariance matrices across different groups. This statistic provides a very stringent, multivariate test for the homogeneity of covariance matrices.

Age. The sample was divided into two age groups, those children age 10 and younger ($n = 109$) and those children 11 years of age and older ($n = 73$). The comparison of the equality of the covariance matrices for these two age groups of children on the CCSC was not significant, Box's $M = 76.53$, $\chi^2(55) = 71.86$, *ns*. Thus there was no reason to suspect that these two age groups were different in terms of the underlying structure of their responses to the CCSC.

Gender. The comparison of the covariance matrices for girls ($n = 118$) and boys ($n = 64$) using Box's *M* test was 92.33, $\chi^2(55) = 86.29$, $p = .004$. A series of model comparisons as outlined by Alwin and Jackson (1981) were conducted in order to locate the possible source of the invariance between these two groups. Comparing the findings of the most restrictive model in which all error terms, factor correlations, and factor loadings were constrained to be equal across the two groups to the findings of the least restrictive model (i.e., no constraints) resulted in a chi-square difference test of $\Delta\chi^2(25) = 34.48, p < .10$, suggesting that these two groups were invariant in terms of the underlying measurement and factor structure. Thus, there is not enough evidence to

Note to Figure 1. Panel a: Test of the problem- versus emotion-focused model. Results displayed are the standardized solution from a confirmatory factor analysis with $\chi^2(34, n = 183) = 247.03$, Comparative Fit Index (CFI) = .78. Panel b: Test of the active (approach) versus passive (avoidance) coping model. Results also represent the standardized solution from a confirmatory factor analysis with $\chi^2(34, n = 183) = 225.94$, CFI = .81. Panel c: Alternative four-factor model of children's coping. Results displayed are the standardized solution from a confirmatory factor analysis with $\chi^2(29, n = 183) = 69.12$, CFI = .96.

show significant differences between the factor structures for boys and girls in their response to this measure.

DISCUSSION

Support was found for a four-factor model that included the dimensions of active coping strategies, distraction strategies, avoidance strategies, and support-seeking strategies. This four-factor model fit the data better than either of the alternative two-factor models of problem-focused versus emotion-focused coping (Lazarus & Folkman, 1984) or active versus passive coping (Billings & Moos, 1981; Ebata & Moos, 1991). Further, the four-factor measurement model was found to be invariant with respect to age and gender in terms of its underlying factor structure.

In moving from the initially proposed five-factor model of coping to the revised four-factor model, we moved from the epistemological status of a confirmatory to an exploratory analysis. Consequently these findings need to be confirmed on an independent sample. Study 2 was conducted to address three issues: (*a*) a cross-validation of the four-factor model of dispositional coping with an independent sample, (*b*) assessment of situation-specific coping, and (*c*) relations and the invariance of the underlying factor structure between comparable measures of dispositional coping and situation-specific coping.

Study 2

The CCSC assesses coping as a general style, i.e., what the individual usually does to deal with stressors across situations, an over-time approach that is similar to several other measures of child and adolescent coping (Glyshaw et al., 1989; Patterson & McCubbin, 1987a; Wills, 1985). This assessment strategy sharply contrasts with that of Lazarus and Folkman (1984), who have argued that trait measures of coping tend to "grossly simplify complex patterns of coping into unidimensional schemes . . . which have little explanatory and predictive value for what a person actually does in particular contexts" (p. 178). Instead, they proposed that coping should be conceptualized as a dynamic and constantly changing process of person-environment transactions in a stressful situation. Consistent with this conceptual model, several studies of coping in children and adults have assessed coping in specific situations rather than as a general style (Band & Weisz, 1988; Brodzin-

sky et al., 1992; Ebata & Moos, 1991; Folkman et al., 1986). As an initial attempt to investigate these two alternative approaches to the measurement of coping, Study 2 sought to develop a situation-specific measure of coping that could be directly compared with the CCSC measure of general coping style.

Many of the issues that arise in choosing between general style and situation-specific measures of coping echo similar issues that surfaced in the earlier debate between trait, situationist, and interactionist approaches to personality (see Krahé, 1992; West, 1983, for reviews). In much of their research, Lazarus and his colleagues (Folkman & Lazarus, 1985; Lazarus, 1990; Lazarus & Folkman, 1984) have focused on understanding coping processes (transactions) in specific situations. These situations are characterized by a single salient stressor (e.g., surgery; midterm exams) and specific stressor-related adaptational outcomes. Situation-specific measures are necessary to understand how coping changes over time and to predict the outcomes of the coping process in that situation (e.g., speed of recovery from surgery). They are also necessary to compare coping processes across situations that differ in conceptually important ways, such as the controllability of the stressor (Folkman & Lazarus, 1980). Situation-specific coping measures can be expected to provide good predictions of those adaptational outcomes that are directly linked to the target stressor.

In contrast, general measures of coping style may be more useful when research questions focus on issues of coping and adaptation across stressors. Stress is measured in many studies using life event inventories that aggregate all negative events that occurred during a specified time period. The broad outcome measures of adaptation (e.g., mental health, self-esteem) used in these studies are unlikely to be greatly influenced by the process of coping with a single stressor. For most coping dimensions, the use of a specific coping strategy (e.g., avoidance) tends to show low to moderate levels of correlation with its use in other situations (Compas et al., 1988; Folkman et al., 1986; Menaghan, 1983). Measures of general coping style implicitly aggregate the common variance of coping responses across multiple stressors (see Epstein, 1983). Thus, measures of general coping strategy correspond nicely to the level of aggregation used in research employing general life event inventories. They can be expected to provide useful prediction of measures of the outcomes of the accumulation of adaptation across stress events.

Only one previous study has directly compared measures of coping style and situation-specific coping. Carver et al. (1989) found that their

situational and dispositional measures had similar factor structures in an adult sample. However, their exploratory factor-analytic approach did not permit formal comparison of the two factor structures. Carver et al. (1989) also found a wide range of correlations between corresponding dimensions of coping on their measures of situation-specific coping and coping style (range = .07 to .76; median r = .29). They interpreted these correlations as suggesting that the role of individual differences in the selection of coping strategies may be more important than earlier researchers have suggested. Their findings are consistent with theory (Lazarus, 1990) and empirical evidence for the relations between stable dispositional variables and coping in specific situations (Kliewer, 1991; Terry, 1994).

Study 2 directly compares the factor structure of responses to parallel measures of situation-specific and general coping style. It also serves as an opportunity to replicate the four-factor structure of the CCSC found in Study 1. Finally, relations between the stylistic and situation-specific measures of coping were investigated using a middle childhood sample.

METHOD

Participants

The participants in this second study were 303 fourth- to sixth-grade children. Children who perceived one of their parents to be a problem drinker were oversampled (see Michaels, Roosa, & Gensheimer, 1992). The children were recruited from 10 different schools within three school districts in a large southwestern metropolitan area. Children were between the ages of 9 and 13, with a mean age of 10.5 years. The sample consisted of nearly equal numbers of girls (n = 151) and boys (n = 152). Only children living in English-speaking households were included in this study. Using the mother's report of her ethnic status as an indication of the ethnic composition of the sample, this sample was composed of 53% Caucasians, 23% Hispanics, 13% African Americans, 4% Native Americans, and 2% other ethnic status. Fifty-four percent of the custodial parents of the children reported they were currently married or cohabitating, 36% reported being divorced or separated, while 7% were never married. The mean annual family income was within the range of $15,001 to $20,000, indicating that the sample was once again comprised of predominantly lower-middle to middle income families.

Families that expressed a willingness to participate in the study were contacted by project personnel and an interview was arranged at their convenience. The target child was interviewed in a separate room out of hearing of the other family members. All interviews were administered using a computer-

assisted data collection procedure. The interviewer read all questions aloud to the children being interviewed.

Instruments

Assessment of life events. The Children of Alcoholics Life Events Schedule (COALES; Roosa, Sandler, Gehring, Beals, & Cappo, 1988) and the General Life Events Schedule for Children (GLESC; Sandler, Ramirez, & Reynolds, 1986) were used to generate the negative life events that children would use to report on their coping efforts. The 46 items on the inventory previously had been rated by a panel of 10 graduate students in terms of how stressful the event would be for an "average" child (Gehring, 1986; Roosa et al., 1988; Sandler et al., 1986). Items were rated using a 7-point Likert scale with the following anchor points: good (1), neutral (4), and bad (7). Events with a mean stressfulness rating greater than 5 were considered to be "negative events" (29 items fell into this category). These 29 events formed the pool of items from which one was selected for the situation-specific coping inventory.

Assessment of children's dispositional coping behaviors. The CCSC used in Study 1 was administered to all children in this study. Fifty-one of the children in this sample had participated in the research described in Study 1. These children were dropped from all analyses examining the CCSC since part of the purpose of this study was to cross-validate the results from Study 1 with an independent sample.

Development of the situation-specific measure of coping behaviors. The same 45 items used in the CCSC were used in the situational-based measure, How I Coped under Pressure Scale (HICUPS). The items were rewritten so that they were in the past tense, and thus appropriate for the change in the frame of reference that the children were asked to use in responding to this inventory. The instructions were modified to focus the children's responses on a single stressful event that had occurred in their lives. The instructions were as follows:

> Here is an event which you said happened to you during the past 3 months. Please describe in your own words what happened, by telling me about it.
>
> [Child describes event, interviewer takes notes.]
>
> When events like this happen people think or do many different things to help make their situation better, or to make themselves feel better. Please tell us how much you thought or did *each* of the different things listed below to try and make things better or to make yourself feel better when *this event* happened. There are no right or wrong answers, just mark how often *you* did each of these things during the event you just described.

Table 4

Means, Standard Deviations, Alphas, and Fit of the Single-Factor Models for the Coping Subscales of the Children's Coping Strategies Checklist (CCSC): Study 2

Coping subscale	Mean (*SD*)	Alpha	*n* for Alpha	χ^2(df, *n*), *p* level	CFI
Cognitive Decision Making	2.81 (.72)	.72	245	$11.32(2, n = 245), p = .004$	.95
Direct Problem Solving	2.86 (.69)	.67	246	$10.09(2, n = 246), p = .006$	.95
Seeking Understanding	2.69 (.73)	.68	245	$3.61(2, n = 245), p = .164$	.99
Positive Cognitive Restructuring	2.67 (.67)	.55	246	$.34(2, n = 246), p = .843$	1.00
Physical Release of Emotions	2.07 (.72)	.53	247	$1.21(2, n = 247), p = .545$	1.00
Distracting Actions	2.37 (.68)	.59	247	$16.94(5, n = 247), p = .005$	.89
Avoidant Actions	2.70 (.73)	.62	247	$7.60(2, n = 247), p = .022$	.95
Cognitive Avoidance	2.82 (.72)	.67	246	$13.52(2, n = 246), p = .001$	.92
Problem-Focused Support	2.30 (.67)	.51	232	$.33(2, n = 232), p = .848$	1.00
Emotion-Focused Support	2.14 (.68)	.57	231	$3.01(2, n = 231), p = .222$	.99

Note. $n = 247$ for the means and standard deviations. CFI = Comparative Fit Index.

Selection of the stressful event used with the HICUPS. Each child was asked to describe in greater detail a stressful event that had been endorsed on the life events measure described earlier. If a child endorsed 1 or more of the 29 negative event items, the item with the highest nomothetic rating of stressfulness was selected as the item to which the child reported coping efforts. If the child did not endorse *any* of the 29 negative event items as occurring in the previous 3 months, an alternative procedure was used to generate a stressful event for which the child could report coping strategies. For these children the following instructions immediately preceded the introduction to the HICUPS.

> Sometimes things happen that make you feel bad or upset. These could be things that happen in your family, at school or with your friends. We'd like you to describe one thing that happened to you during the past 3 months that made you feel bad or upset, by telling me about it.

These children were asked to report on the extent of their use of each of the coping strategies in response to the *specific* stressful event they had described, using a 4-point Likert scale. The response choices were slightly modified from the CCSC to reflect the change in the instructional set: not at all (1), a little (2), somewhat (3), and a lot (4).[4]

Of the 287 children who completed the HICUPS, 230 children responded to the inventory using one of the negative events included on the life events questionnaire. The mean rated "stressfulness" on a 7-point scale for this sample was 6.40 ($SD = .374$, Range = 5.1 to 6.9). Fifty-seven children failed to endorse a negative event. Of these 57 children, 35 were able to generate another negative event that had occurred to them in the previous 3 months and used this event to respond to the situational measure of coping. Combining these two groups, 265 children responded to the situational measure of coping.

RESULTS

Psychometric Characteristics of the Children's Coping Strategies Checklist

In this study the coefficient alphas on the individual subscales ranged from a high of .72 for the Cognitive Decision Making subscale to a low of .51 for the Problem-Focused Support subscale. Single factor CFAs were conducted for all of the subscales of coping. All but one of the subscales, Distracting Actions (CFI = .89), had an adequate fit to the proposed single-factor model (see Table 4). In contrast to Study 1, the items that served as indicators of the physical release of emo-

4. Copies of the Children's Coping Strategies Checklist and the How I Coped under Pressure can be obtained from the first author.

Table 5
Means, Standard Deviations, Alphas, and Fit of the Single-Factor Models for the Coping Scales of the How I Coped under Pressure Scale (HICUPS): Study 2

Coping subscale	Mean (*SD*)	*N*	Alpha	*N* for alpha	χ^2(df, *n*), *p* level	CFI
Cognitive Decision Making	2.55 (.80)	266	.71	264	$24.18(2, n = 264), p < .001$	.89
Direct Problem Solving	2.56 (.82)	268	.71	265	$4.15(2, n = 265), p = .126$	.99
Seeking Understanding	2.62 (.85)	271	.74	268	$3.37(2, n = 268), p = .186$	.99
Positive Cognitive Restructuring	2.58 (.78)	270	.62	269	$.84(2, n = 269), p = .658$	1.00
Physical Release of Emotions	1.73 (.75)	270	.65	270	$2.16(2, n = 270), p = .341$	1.00
Distracting Actions	2.09 (.75)	270	.65	270	$12.14(2, n = 270), p = .033$	.96
Avoidant Actions	2.55 (.81)	269	.64	267	$.03(2, n = 267), p = .984$	1.00
Cognitive Avoidance	2.88 (.75)	270	.61	267	$4.98(2, n = 267), p = .083$	.97
Problem-Focused Support	2.02 (.74)	269	.57	253	$1.22(2, n = 253), p = .544$	1.00
Emotion-Focused Support	1.95 (.75)	271	.60	256	$3.93(2, n = 256), p = .140$	.98

Note. CFI = Comparative Fit Index.

tions dimension clearly fit a single-factor model in this sample (i.e., CFI = 1.00).

Evaluation of Coping Models Using CCSC

Cross-validation of the four-factor coping model. Confirmatory maximum-likelihood factor analyses were conducted using both LISREL 7 (Jöreskog & Sörbom, 1989) and EQS 3.2 (Bentler, 1989). The four-factor measurement model of children's coping (Figure 1, Panel c) that resulted from Study 1 was cross-validated with this sample.[5] The overall fit of the model, using the CFI as the index of fit, indicated that the theoretical model provided an adequate fit to these data, $\chi^2(29, n = 247) = 82.77, p = .001$, CFI = .96.

Factorial Invariance of the CCSC Based on Gender and Age

As in Study 1, the invariance of the measurement and factor structure of the CCSC across age and gender also was examined using this new sample. Children 10 years of age or younger were combined into one subgroup ($n = 129$), whereas the remainder formed the second subgroup, age 11 or older ($n = 118$). Box's M test indicated that the covariance matrices did not differ as a function of age, $M = 62.39$, $\chi^2(55) = 59.73$, *ns*. Comparison of the covariance matrices of the CCSC for boys and girls ($n = 130$ boys; $n = 117$ girls) yielded a Box's $M = 65.83$, $\chi^2(55) = 63.02$, *ns*. These results replicated the findings obtained in Study 1.

Psychometric Characteristics of a Situation-Specific Measure of Children's Coping Behaviors (HICUPS)

In this sample the alphas for the HICUPS ranged from a low of .57 on the Problem-Focused Support subscale to a high of .74 for the Seeking Understanding subscale (see Table 5). Alphas on the HICUPS subscales were consistently higher than those achieved on the CCSC in this study.

Single-factor CFAs were conducted for each of the subscales. All of the subscales except the Cognitive Decision Making subscale (CFI = .89) adequately fit a proposed single-factor model.

5. In order to conserve space, the correlation matrices for subscales of the CCSC and HICUPS in Study 2 are not included but can be obtained from the first author.

Evaluation of Coping Models Using HICUPS

Test of the four-factor coping model using the HICUPS. The same four-factor measurement model of children's coping that was tested and confirmed using the CCSC was evaluated with the data gathered from the HICUPS. This four-factor model also fit the data using the HICUPS, $\chi^2(29, n = 265) = 58.29, p < .001$, CFI = .98.

Alternative coping models. The two alternative coping models were compared with the four-factor model using the data collected with the HICUPS. Chi-square difference tests showed that the four-factor model fits the data significantly better than either the problem- versus emotion-focused coping model, $\Delta\chi^2(5, n = 265) = 183.21, p < .001$, or the active versus passive model, $\Delta\chi^2(5, n = 265) = 173.30, p < .001$. This pattern of results is similar to the findings observed when comparing these alternative models with the CCSC data.

Factorial Invariance of HICUPS across Age and Gender

A comparison of the covariance matrices created on the basis of the gender of the child (boys, $n = 127$; girls, $n = 138$) indicated that the underlying factor structure was invariant with respect to gender, Box's M statistic = 63.09, $\chi^2(55) = 60.58$, *ns*. A similar comparison of the covariance matrices for children 10 years or younger ($n = 144$) versus 11 years and older ($n = 121$) was also not significant, Box's M statistic = 68.59, $\chi^2(55) = 65.85$, *ns*.

Direct Comparisons between the Dispositional and Situational Measures of Coping

Correlations between corresponding subscales. The correlations between the subscale scores on the CCSC and the corresponding subscale on the HICUPS were calculated. These correlations ranged from .42 between Avoidant Actions subscales to .62 for the Physical Release of Emotions subscales and are presented in Table 6.

Factorial invariance of the CCSC and HICUPS. Although the proposed four-factor coping model fit the data for both the CCSC and the HICUPS, it is still possible that these scales might have different underlying factor structures. We followed the general procedures for

Table 6
Correlations between the Dispositional Children's Coping Strategies Checklist (CCSC) and the Situational How I Coped under Pressure Scale (HICUPS) Measures of Coping

Coping subscale	*r*
Cognitive Decision Making	.55
Direct Problem Solving	.59
Seeking Understanding	.57
Positive Cognitive Restructuring	.57
Physical Release of Emotions	.62
Distracting Actions	.59
Avoidant Actions	.42
Cognitive Avoidance	.50
Problem-Focused Support	.57
Emotion-Focused Support	.57

Note. $n = 219$. For all correlations, $p < .001$, using one-tailed tests.

comparing groups of participants (cf. Alwin & Jackson, 1981; Byrne, Shavelson, & Muthén, 1989; Jöreskog, 1971), modifying these procedures to reflect our collection of data on both instruments from a single sample of participants (Everitt, 1984). Initially a model was tested in which no equality constraints were imposed on the factor loadings, correlations, or error terms between the two measures (Figure 2). The results of the analysis were: $\chi^2(132, n = 219) = 231.04$, $p < .001$, CFI = .97. Comparison of the initial model with one in which the factor loadings for these two measures were constrained to be equal showed a significant chi square, $\Delta\chi^2(10) = 44.03$, $p < .01$. This indicated that the factor loadings for the subscales differ between the two instruments. Exploratory follow-up tests to locate the source of the invariance in the factor loadings (see Byrne et al., 1989) suggested that the loadings for cognitive decision making and direct problem solving differed between the two measures, as did the correlations between the avoidant strategies and support seeking strategies factors.[6]

6. This sequential testing of models in which there is some partial measurement invariance is problematic, due to the nonindependence of the sequential tests (Byrne et al., 1989). An alternative sequence of tests might lead to different findings, in terms of identifying the specific sources of invariance across these two measures. These exploratory findings, although potentially interesting, require replication before they can be accepted with confidence. A table summarizing the steps taken in exploring the partial measurement invariance of these measures is available from the first author.

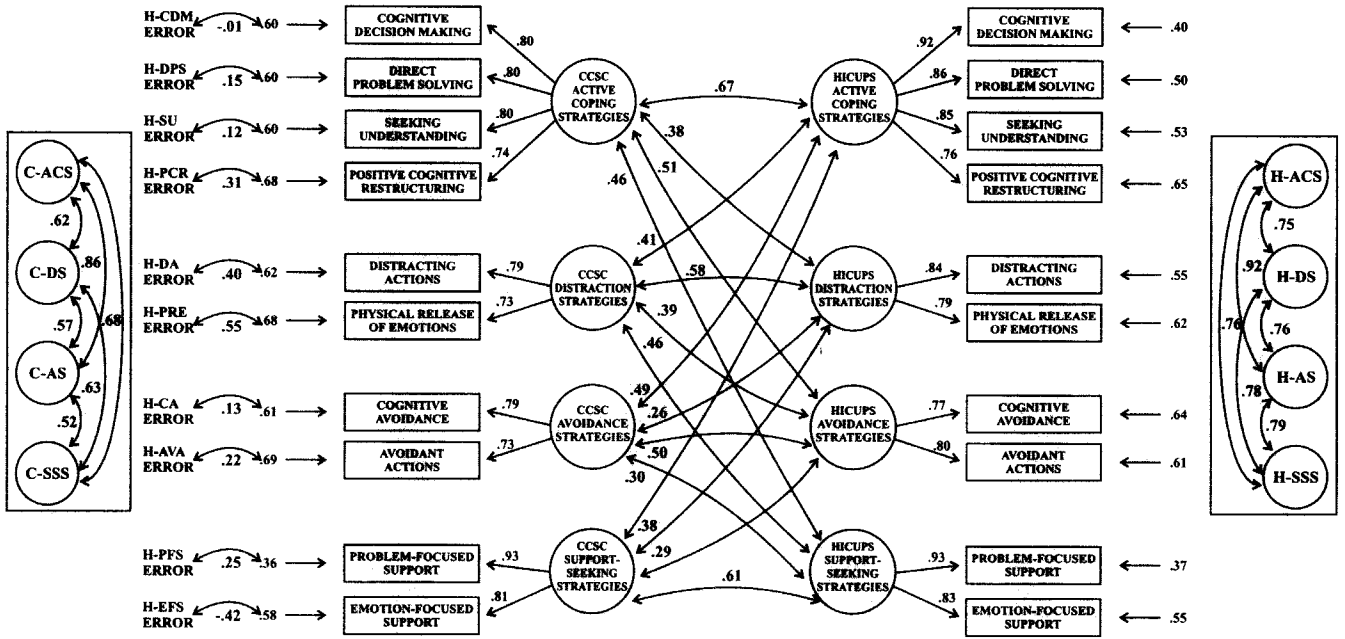

Figure 2

Test of the Factorial Invariance of the Children's Coping Strategies Checklist (CCSC) and the How I Coped under Pressure Scale (HICUPS)

See note on facing page.

DISCUSSION

Confirmatory factor analysis indicated that a four-factor model of coping style, which consists of active, distraction, avoidance, and support-seeking strategies, was replicated in an independent sample and also provided a good fit for the assessment of situation-specific coping. For both the situation-specific and dispositional measures of coping, the four-factor model provided a better fit to the data than either the problem- versus emotion-focused (Lazarus & Folkman, 1984) or the passive versus active (Ebata & Moos, 1991) coping models. Finally, moderate to high correlations were found between the similar subscales of dispositional and situational measures of coping, suggesting that individual differences in children's preferred coping styles may influence their use of coping strategies during specific situations.

This study provided considerable evidence for the robustness of the four-factor model. The four-factor model found in the first study of children's coping style was cross-validated in a second sample. The model also was found to be invariant across age and gender of the child in both samples. Finally, a similar four-factor model also provided a good fit to the data for the situational measure of coping, although factor loadings and correlations between dimensions were not equivalent. This four-factor model has been further replicated in a separate sample of children of divorce (Sandler, Tein, & West, 1994), providing evidence for its generalizability across populations with different characteristics.

The four-factor model of coping generates important new theoretical distinctions regarding children's coping efforts. First, it illustrates the

Note to Figure 2. Using data from both the CCSC and the HICUPS, a model was constructed that would allow a test of the invariance of both the measurement and structural parameters of these scales. These results are the standardized solution from the initial test of the model in which no equality constraints were imposed. A marker variable strategy was used in this analysis. The first indicator of each construct was set equal to 1.0. The model also allowed covariation between the error terms of matching subscales (which are displayed on the left side of the figure). The overall fit of the model was $\chi^2(132, n = 219) = 231.04, p < .001$, Comparative Fit Index (CFI) = .97. All coefficients > .20 are significant. To simplify model presentation the intercorrelations between the latent constructs on each scale are displayed in the insets. The abbreviations for the CCSC constructs are as follows: C-ACS = active coping strategies, C-DS = distraction strategies, C-AS = avoidance strategies, and C-SSS = support-seeking strategies. In a like manner, the HICUPS constructs are as follows: H-ACS = active coping strategies, H-DS = distraction strategies, H-AS = avoidance strategies, and H-SSS = support-seeking strategies.

distinction between avoidance and distraction coping strategies, which previously have been combined into a single factor reflecting avoidance strategies (Ebata & Moos, 1991; Rossman, 1992). Similar to Altshuler and Ruble's (1989) distinction between partial and complete avoidance, a distinction is made between distraction strategies where children involve themselves in some other activity to keep themselves from thinking about the problem and avoidance strategies where children report simply trying to avoid or stop thinking about the problem.

A second conceptual distinction made in the four-dimensional model is the separation of support-seeking strategies from the other dimensions of coping. The central feature of the support-seeking dimension is the use of social support in coping, both to solve problems and to reduce negative emotions. Moos and his colleagues included support seeking in their approach (active) dimension of coping, whereas the two functions of support seeking would cut across Lazarus's problem-focused and emotion-focused dimensions. Although we initially wrote the support-seeking items so that we might more easily test and distinguish between support-seeking strategies based on their function (i.e., emotion- vs. problem-focused), an alternative, theory-based approach to assessing support seeking might be to write items based on type of provider of the support. That is, the children's responses to these items may not be based on the function that support seeking served for the child, but instead would be based on who the "provider" was of the support (Slavin, 1991; Wolchik, Beals, & Sandler, 1989). Future development of both the Children's Coping Strategies Checklist and the How I Coped under Pressure Scale might include writing additional items to assess support seeking from specific providers within the child's network.

Active coping included strategies in which the child focused on the stressful event, either to change the situation or to think about it more positively. Lazarus and Folkman (1984) have previously noted that problem- and emotion-focused strategies are often used to facilitate each other. For example, an optimistic interpretation may enable a child to continue to focus on the situation and to generate problem-solving approaches. Active coping in our model is actually quite similar to the approach (active) mode of coping described by Moos and his colleagues (Ebata & Moos, 1991), except that they included support-seeking efforts as part of their dimension. As alluded to above, our active coping dimension includes strategies that once again cut across Lazarus's distinction of coping efforts based on function. In addition,

we believe that one of the subscales of this construct, the Positive Cognitive Restructuring subscale, includes multiple strategies such as acceptance and optimism that might be further disaggregated in future studies.

The high intercorrelations that were observed between the four latent variables is another notable aspect of the four-factor model of coping. However, the magnitude of the zero-order correlations between the subscales on the coping measures is generally consistent with the zero-order correlations observed between subscales in other coping measures (e.g., Causey & Dubow, 1992; Glyshaw et al., 1989; Wills, 1985). The intercorrelations between the latent constructs (which are theoretically free of measurement error) are higher than the intercorrelations between the indicators. Part of the high correlation between these constructs may be due to a common method factor underlying response to the items with a common response format. However, the pattern of high correlations also strongly supports the notion that these four different coping strategies and styles are in fact highly related and frequently co-occur. This is theoretically consistent with previous evidence that children report using a variety of coping strategies in response to any particular stressful event. Through the use of confirmatory factor-analytic techniques and by allowing intercorrelations between the constructs, we avoided masking the magnitude of the correlations between these constructs, which can easily occur in studies using exploratory factor-analytic techniques (e.g., principal factor analysis with varimax rotation; see Causey & Dubow, 1992; Glyshaw et al., 1989; Wills, 1985).[7] There is a trade-off in the choice of different statistical methods in the creation of scales. The use of confirmatory factor-analytic methods often results in constructs that are conceptually clearer but with higher intercorrelations between constructs, whereas exploratory factor-analytic methods (particularly those that use varimax rotations) result in constructs that have low or zero intercorrelations, but that are often conceptually more ambiguous.

The associations between the children's dispositional (CCSC) coping styles and the coping behaviors they chose in response to a specific

7. These authors typically used principal component analyses with a varimax (orthogonal) rotation in order to minimize the intercorrelations among the factors. Since the solution to the factor analysis is used to create the scale scores, it would also have the effect of lowering the intercorrelations between the subscales, thus explaining the differences in the magnitude and direction of the correlations between these studies.

event (HICUPS) were found to be significant for all scales and of a moderate to high level (*r*s ranging from .42 to .62; median = .57; coefficients observed between corresponding latent variables ranged from .50 to .67; see Figure 2). The associations between these two measures appear to be of greater magnitude than the relation between dispositional and situational measures of coping for adults (range of .07 to .76, median = .29; Carver et al., 1989). The difference in magnitude of the correlations across these two age groups may reflect that a child's dispositional coping style plays a more important role in the selection of children's coping response to a specific situation than is the case for adults. Children's appraisal of specific events and their recognition of subtle distinctions in the context of the event may have more limited influence on their choice of coping strategies and therefore the child may respond in a more "patterned" or "stylistic" way than would adults. In partial support of this argument, the correlations between reported use of the same coping strategies across situations are higher for children (Spirito, Stark, & Williams, 1988) than they are for adults (Compas, Forsythe, & Wagner, 1988).

Several other factors may contribute to a child's selection of coping strategies in response to a specific event. These include the characteristics of the situation (e.g., Causey & Dubow, 1992; Compas et al., 1988; Mattlin, Wethington, & Kessler, 1988; Swift et al., 1990) and the child's own dispositional preferences for coping strategies, the personality traits of the child that cause her to choose more consistently one coping style over another, or both (for examples within the adult literature, see Bolger, 1990; Fleishman, 1984; within the child and adolescent area, see Kliewer, 1991). An advantage of having both a situational and dispositional measure of coping is that one can begin to explore the relative contributions of these various influences on children's choices of particular coping strategies in response to negative events that occur in their lives.

The type of research questions posed in this report and the measures of coping utilized have the advantage of being closely tied to theoretical constructs that are carefully operationalized and measured. The assessment of coping styles as well as situation-specific coping should facilitate future studies to address how coping in specific situations and as aggregated across situations impacts on children's health and well-being.

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