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Coping and the response of others

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ABSTRACT

This cross-sectional study examined spouse responses to partners' coping among 84 parents (29 couples and 26 individuals) of children with disabilities. Participants completed questionnaires regarding coping with caregiving and psychological distress. Further, participants completed a Response of Others Scale in which they rated spouses' responses to their coping as positive, negative, or neutral. Findings from multilevel modeling suggested that positive responses to coping amplified the benefits of relationship-focused coping, and attenuated the negative effects of maladaptive coping strategies on distress. Cognitive restructuring was associated with lower levels of distress in the context of positive responses, but with *greater* distress in the context of negative responses. Findings suggest the utility of assessing the response of others in coping research.

KEY WORDS: caregiving • children with disabilities • coping • dyadic coping • stress

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The stress and coping literature has been plagued by inconsistencies regarding strategies that should be considered adaptive versus maladaptive ways of dealing with stress (Coyne & Gottlieb, 1996; Folkman & Moskowitz, 2004). One reason for these inconsistencies may be that the effectiveness of any given coping strategy depends on the response of others to the use of that strategy. Once we engage in a particular strategy to deal with stress, the response of others, or at least our perception of the response of others, will likely shape subsequent behaviours. As with the rest of the stress process, coping does not occur within a social vacuum (Coyne & DeLongis, 1986). In order to clarify relations between coping and well-being, consideration of the interpersonal context in which coping occurs is warranted. In the current study, we present a scale to assess the perceived response of others to coping. The scale assesses spouses' responses to their partners' ways of coping. In addition to examining the direct impact of coping and spouses' responses on psychological distress, we examine the extent to which these responses moderate the relationship between coping and distress.

Coping strategies and outcomes

Coping theorists have identified three broad coping styles: emotion-focused and problem-focused (Folkman, Lazarus, Gruen, & DeLongis, 1986), and more recently, relationship-focused (Coyne & Smith, 1991; DeLongis & O'Brien, 1990). *Emotion-focused coping* consists of behavioural and cognitive strategies to control the undesirable feelings associated with stressful circumstances. Passive avoidant emotion-focused strategies such as self-blame, distancing and wishful thinking have generally been associated with poor stress outcomes (e.g., Epping-Jordan, Compas, & Osowiecki, 1999), whereas more constructive emotion-focused strategies such as reappraisal (Gross & John, 2003) and acceptance (Stone, Kennedy-Moore, & Neale, 1995) are thought to be more adaptive.

However, these findings are not consistent throughout the literature. The use of emotional avoidance, for example, has also been found to be beneficial (Bonanno, Keltner, Holen, & Horowitz, 1995). Further discrepancies surround the effectiveness of emotional expression. Whereas some studies suggest that emotional expression can be maladaptive, others have linked this strategy to reduced distress (see review by Kennedy-Moore & Watson, 2001).

Problem-focused coping represents active behavioural strategies such as planning and information seeking. In general, these ways of coping have been considered adaptive because they involve efforts to act directly on the source of stress. However, research suggests that the adaptive implications of problem-focused strategies may depend upon characteristics of the stressor. Most notably, these strategies have been found to be more beneficial when dealing with highly controllable events (e.g., academic failure; Band & Weisz, 1988), as compared to those events over which it is more difficult to exert control (e.g., undergoing a medical procedure; Weisz, McCabe,

& Dennig, 1994). In coping with pain, for example, problem-focused coping has been found to have negative effects (Newth & DeLongis, 2004). In short, the effectiveness of problem-focused strategies appears to be situation specific, although the relevant contextual dimensions have yet to be fully specified.

Relationship-focused coping refers to modes of coping aimed at managing, preserving, or maintaining relationships during stressful periods (O'Brien & DeLongis, 1997). Past research supports the effectiveness of these strategies, particularly in the context of communal stressors. For example, coping attempts that focus on maintaining relationships in times of marital and parenting stress (e.g., empathic responding) have been associated with decreases in levels of marital and family tension over time (DeLongis & Holtzman, 2005). Empathic coping has also been associated with increased satisfaction among caregivers to spouses with Alzheimer's disease (Kramer, 1993). Despite growing interest in the social dimensions of coping (e.g., Buchwald, 2003; Revenson, Kaysar, & Bodenmann, 2005), individual coping styles have been the primary focus of research.

Coping and the response of others

Much of our current knowledge regarding the response of others to coping efforts comes from studies of individuals who have endured a traumatic event (e.g., Lepore, Silver, Wortman, & Wayment, 1996). Following a traumatic event, it is common for survivors to cope by telling people about their experience (Rime, Philippot, Boca, & Mesquita, 1992). Research suggests that talking to others may serve the adaptive function of facilitating processing, cognitive reappraisal, and finding meaning in the experience. However, many people experience social constraints that prevent them from speaking about traumatic events (Pennebaker & Harber, 1993). Social constraints can include inappropriate or insensitive responses from a member of a support network (Wortman & Lehman, 1985), or any response that causes the trauma survivor to feel misunderstood or unsupported (Lepore & Ituarte, 1999).

Social constraints to talking have been found to have negative implications for recovery from traumatic events. For example, among bereaved parents, negative responses from friends and family (e.g., telling parents that they could always have other children or suggesting that the infant's death was "God's will") have been shown to constrain parents' coping in a number of ways (DeLongis, Silver, & Wortman, 1986; Lepore et al., 1996). In particular, negative responses to coping were predictive of decreased *desire* to cope over time, reduced *effort* put into coping over time, and reduced *effectiveness* of the coping strategy when it was used. On the other hand, coping efforts that were met with support and understanding tended to be highly effective in helping the bereaved parents to recover from their grief.

A study of interactions between rheumatoid arthritis patients and their caregivers led to similar conclusions (Griffin, Friend, Kaell, & Bennett,

2001). Specifically, when patients coped through expressing negative emotions and perceived their caregivers to respond negatively (i.e., becoming irritated or angry), patients indicated increased negative affect and poorer disease status at 9-month follow-up. In contrast, when caregivers responded more positively, emotional expression was not associated with negative health outcomes. The authors suggest that patterns of patient maladaptive coping and negative partner responses set the stage for emotionally volatile interactions that may be more damaging than the independent effects of the patient's coping or the partner's response. Clearly then, significant others' responses to coping may be important determinants of the marital environment, and ultimately the well-being of both partners, as they navigate their way through stressful situations.

The measurement of coping

Commonly used coping inventories, such as the COPE (Carver, Scheier, & Weintraub, 1989) and Ways of Coping (WOC; Folkman et al., 1986) assess the extent to which individuals engage in various coping strategies to deal with stress. However, existing measures generally fail to tap into key contextual factors that may help or hinder an individual's efforts to cope. With the aim of testing a model in which coping strategies and the response of others influence the stress and coping process, we incorporated a "perceived responses to coping" index to our assessment of coping. Specifically, respondents were asked to indicate whether their spouses had responded negatively, neutrally, or positively to their use of each coping strategy. The resulting measure yielded information regarding the coping strategies used, the extent of their use, and perceptions of partner responses to the use of each strategy. Using this approach to measuring coping, we hoped to obtain a more comprehensive understanding of the stress and coping process among a sample of parents raising children with disabilities, including spina bifida and cerebral palsy.

The current study

Caring for a child with a disability is a stressful situation associated with a multitude of social, economic, and personal demands (Dyson, 1993). Parents of chronically ill children generally report higher levels of distress than do parents of healthy children, but this is not always the case (Horton & Wallander, 2001). Variability in well-being may be explained, at least in part, by examining the ways in which parents cope with the stresses associated with this challenging situation. However, inconsistencies regarding the relationship between coping and wellbeing among parents of children with disabilities mirror those of the broader coping literature (for a review, see Beresford, 1994). Therefore, it is important to consider contextual factors, such as perceptions of others' responses to coping, which may impact coping effectiveness within these families.

We aimed to investigate the relations among parents' ways of coping with caregiving stressors, the perceived responses of the spouse to their coping efforts, and symptoms of psychological distress. We examined the direct effects of coping and the response of others on distress, as well as the moderating effects of the response of others on the relationship between coping and well-being.

Hypotheses

Hypothesis 1.0: Relations of coping to distress. Based upon previous research (e.g., among Alzheimer's caregivers; Haley et al., 1996), we expected avoidant strategies, such as interpersonal withdrawal, and negative emotion-focused strategies, such as self-blame and wishful thinking, to be related to higher levels of distress. On the other hand, more active strategies such as cognitive restructuring and relationship-focused coping were expected to be associated with lower distress levels among these parents. Although the majority of studies have found problem-focused coping to be associated with positive outcomes, findings have been mixed. Given this, we made no predictions as to how this strategy might influence levels of distress within our sample.

Hypotheses 2.1 to 2.3. Coping and the response of others. In general, we expected perceptions of responses from the spouse to be an important factor in the prediction of distress. First, we anticipated that negative spouse responses would be directly related to distress, independent of coping. Second, we expected that spouse responses would influence the relationship between coping and distress. However, we anticipated that the moderating role of spouse responses to coping would depend upon the coping strategy in question.

Hypothesis 2.1: Relationship-focused coping. Because relationship-focused strategies are directed toward other people involved in the stressful situation (e.g., "I tried to understand how the other person felt"), it was expected that the response of others to this coping style would be a determinant of coping effectiveness. Specifically, we expected that the benefits of relationship-focused coping on levels of distress would be amplified in the presence of perceived positive responses, but attenuated in the presence of negative responses.

Hypothesis 2.2: Emotion-focused coping. Similar to relationship-focused strategies, many emotion-focused strategies directly involve other people (e.g., "I tried to get the person responsible to change his or her mind"). However, there are also emotion-focused strategies that involve other people in less obvious ways. For instance, cognitive reappraisal includes elements of personal growth (e.g., "I changed something about myself), which may in turn alter the dynamics of an already established relationship. Although no previous research has examined how the response of others influences the relationship between emotion-focused coping (as it is typically

broadly construed) and psychological distress, the emotional expression literature suggests that the effectiveness of this strategy is dependent upon others' reactions to the expression (e.g., Lepore et al., 1996; Major et al., 1990). We therefore expected the benefits of typically adaptive emotion-focused coping strategies to be amplified in the presence of perceived positive responses, but minimized in the context of negative responses. Similarly, we predicted that in the context of perceived positive responses from the spouse, the relationship between typically maladaptive emotion-focused coping and distress would be attenuated.

Hypothesis 2.3: Problem-focused coping. In contrast to relationship- and emotion-focused coping, problem-focused strategies can be carried out independently and may be less entangled with interpersonal factors (e.g., "I went over in my mind what I would say or do"). Given this, it was unclear how responses from the spouse might influence the relationship between problem-focused coping and well-being and no specific hypotheses were made.

Method

Participants

Participants were solicited through the client population of the *Society for Manitobans with Disabilities*. Those eligible for participation were the parent of a disabled child who was age 19 or younger and residing in the parental home. The Director of Clinical Services sent out an initial letter of invitation. One-hundred-and-thirty-seven families expressed interest in participating by returning postcards, and questionnaires were then mailed to them (two per family). Each questionnaire included a set of self-report scales (described in the next section). Ninety-five completed questionnaires were returned. Of the completed questionnaires, 10 were dropped from the current study due to missing data. Participants received no compensation.

The final sample consisted of 84 parents (29 couples and 26 individual respondents). The participating parents were 60% female and the mean age was 38 years (ranging from 28 to 61 years). Participants were predominantly middle class (in Canadian dollars, 8% of parents earned under $19,999 per year, 35% earned between $20, 000 and $39,999 per year, 33% earned between $40,000 and $59,999 per year, and 24% earned over $60,000 per year), and the majority had completed at least a high school education (83%). Participants and their significant others had been living together for a mean of 14 years (ranging from 1 to 32). Although some couples may not have been legally married, for the sake of parsimony we will refer to all significant others as spouses.

The mean age of the children with disabilities in these families was 9 years (ranging from 2 to 19 years) and 57% were male. They were the biological children of both the respondent and his or her partner 86% of the time. The majority of the children had been diagnosed with cerebral

palsy (31%), spina bifida (20%), or hearing impairment (11%). Other disabilities (38%) included visual impairment, epilepsy, and hydrocephalus, and multiple disabilities were indicated for 24% of the children. Twenty-seven per cent of the children had been hospitalized at least once in the previous year.

Measures

Caregiving stressor was coded from participant responses to the following: "What would you say are the most important issues or concerns you have in dealing with your [disabled] child at this time? (These may be issues anyone faces raising a child, or they may be unique to raising a [disabled] child. They may be longstanding issues or they may be recent.)" Responses were independently coded into five categories by two raters. Based upon ratings of each participant's primary caregiving stressor, raters agreed 83% of the time.

Ways of coping. The coping scale was based on a revised version of the Ways of Coping Scale (Lee-Baggley, Preece, & DeLongis, 2005), that included problem-, emotion-, and relationship-focused coping scales. *Problem- and emotion-focused coping* scales were based on items used in the original Ways of Coping (WOC; Folkman et al., 1986). A *relationship-focused coping* scale was included to assess empathic responding (O'Brien & DeLongis, 1996). This latter scale taps both cognitive-affective and behavioral aspects of empathic responses. Factor analyses have provided support for relationship-focused coping as a separate dimension from emotion- and problem-focused coping (O'Brien & DeLongis, 1996). In the present study, participants were asked to respond to the coping items in terms of their ways of coping with the specific caregiving stressor they had described in the previous question. For all coping items, responses were rated on a 3-point scale ranging from 1 ("not used") to 3 ("used a great deal").

Previous research using the WOC has found emotion-focused coping to be multifaceted (e.g., Folkman et al., 1986). Given this, we factor-analyzed the emotion-focused coping items from the WOC using Principal Component extraction with Varimax rotation. Results indicated two underlying dimensions of emotion-focused coping, which were labeled cognitive restructuring and reproach coping (see Table 1). Seven items were dropped because they failed to load higher than 0.3 on either factor.

Next, we ran inter-item reliabilities on the relationship-focused scale, the two emotion-focused scales (cognitive restructuring and reproach coping), and the problem-focused scale, dropping 25 items that did not cohere. Cronbach's coefficient alpha was used as the reliability estimate. In total, 49 items were retained, yielding four factors: relationship-focused coping (11 items, $\alpha = 0.88$), cognitive restructuring (15 items, $\alpha = 0.76$), reproach coping (13 items, $\alpha = 0.85$), and problem-focused coping (10 items, $\alpha = 0.77$).

TABLE 1
Emotion-focused factor loadings (*N* = 84)

Scale	Item	Factor loading
Cognitive restructuring	Went along with fate; sometimes I just have bad luck.	.50
	Went on as if nothing had happened.	.47
	I tried to keep my feelings to myself.	.56
	Looked for the silver lining so to speak; tried to look on the bright side of things.	.43
	Tried to forget the whole thing.	.51
	Changed or grew as a person in a good way.	.38
	I waited to see what would happen before doing anything.	.52
	Maintained my pride and kept a stiff upper lip.	.46
	Found a new faith.	.59
	Rediscovered what is important in life.	.39
	Made light of the situation; refused to get too serious about it.	.47
	Accepted it since nothing could be done.	.44
	I tried to keep my feeling from interfering with things too much.	.61
	I changed something about myself.	.43
	I reminded myself how much worse things could be.	.52
Reproach coping	Tried to get the person responsible to change his or her mind.	.50
	Tried to make myself feel better by eating, drinking, smoking, etc.	.53
	Avoided being with people in general.	.58
	Took it out on other people.	.64
	Wished that I could change what had happened or how I felt.	.48
	I daydreamed or imagined a better time or place than the one I was in.	.57
	Wished that the situation would somehow go away or somehow be over with.	.52
	Had fantasies or wishes about how things might turn out.	.51
	I withdrew from the other person(s) involved.	.62
	I sulked.	.61
	I gave the other person(s) involved the "silent treatment."	.60
	Criticized or lectured myself.	.61
	Realized I brought the problem on myself.	.56

Relationship-focused coping. These strategies tap two facets of empathic responding: Cognitive/affective strategies (perspective taking and vicarious experiencing of another's concerns and feelings) and behavioral strategies (listening, providing comfort or support; e.g., "I tried to find a solution that was fair to all involved" or "I tried to help the other person involved by doing something for him/her"). The mean item score for relationship-focused coping was 2.05 (SD = 0.42).

Emotion-focused coping scales. *Cognitive restructuring* is a combination of strategies including positive reappraisal (e.g., "Looked for the silver lining

so to speak"), acceptance (e.g., "I accepted it since nothing could be done"), and stoic distancing (e.g., "I went on as if nothing had happened" or "I tried to keep my feelings to myself"). The mean item score for cognitive restructuring was 1.93 (SD = 0.31). *Reproach coping* is a combination of typically maladaptive coping responses that are characterized by the expression of negative affect toward self and others. These strategies included self-blame (e.g., "I criticized or lectured myself"), confrontational coping (e.g., "Took it out on other people"), and interpersonal withdrawal (e.g., "I avoided being with people in general"). The mean item score for reproach coping was 1.68 (SD = 0.41).

Problem-focused coping. These items represent increased efforts to engage one's self behaviorally and cognitively in order to directly impact the source of distress (e.g., "I made a plan of action and followed it" or "I came up with a couple different solutions to the problem"). The mean item score for problem-focused coping was 2.01 (SD = 0.37).

Perceived response of others to coping. Participants were asked to rate their spouses' responses to their extent of use of each coping strategy. This measure was created specifically to test our hypotheses. After completing each WOC-R item, participants were asked to indicate whether their spouses' response to their use of that particular coping strategy was negative, neutral, or positive (1 = negative, 2 = neutral, and 3 = positive). A total spouse response score was created by summing all items in the perceived response of others index. Cronbach's alpha for the scale was 0.92, and the mean item spouse response score was 2.37 (SD = 0.30).

Psychological distress. The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was used to assess psychological distress. Participants indicated the extent to which they were distressed by endorsing various psychological and physical symptoms over the past 7 days. Participants responded using a 5-point scale, ranging from 0 ("not at all") to 4 ("extremely"). Raw scores were summed across all 53 items to create a global distress score for each participant. Cronbach's alpha for the scale showed high internal consistency (α = 0.94) in the present sample. The mean item BSI score was 0.53 (SD = 0.41).

Results

Preliminary analyses

First, we calculated the frequencies of caregiving stressors reported in our sample. We found that the most frequently reported issue was the child's current functioning or abilities, such as school performance, social functioning, and capacity for self-care (64.3%; e.g., "His schooling and his hatred of school"). Other commonly reported caregiver concerns included family functioning (9.5%; e.g., "I am concerned about how little time my husband

and I have for ourselves"), the disabled child's future functioning (8.3%; e.g., "Fear of physical lifting and care as he gets older"), and the child's health (7%). Other stressors (10.9%) included concerns related to the health care system (e.g., "I have a real problem with health care professionals feeling that they always know what is best for my child"), and the community (e.g., "The social attitudes toward disabled people"). Second, we tested whether there was a significant difference in self-reported distress between those respondents whose partners did versus did not return the questionnaire. Results indicated no statistically significant group differences ($F(82) = 2.78$, $p > 0.05$). Finally, we tested the bivariate associations among study variables using Pearson correlation coefficients (see Table 2). Consistent with previous research, scores on all four coping subscales were moderately positively correlated. Given that parent age and gender, the number of years the parent had been living with his or her spouse, and child age were unrelated to distress ($p > .10$), these variables were excluded from the analyses presented later.

Hierarchical linear modeling

Hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992), a multilevel modeling technique, was employed to investigate the relations among ways of coping, spouse responses to coping, and outcomes of distress. Given that husbands and wives could not be considered as independent, data collected from husbands and wives were nested within couples. HLM takes into account the intercorrelation between couples' responses. By entering all study variables (i.e., ways of coping, response of others, psychological distress) at Level 1, and couple identification codes (which have a common value within the couple) at Level 2, we were able to adjust for the dependence in the data (see Snijders & Bosker, 1999, for a discussion of dealing with dependence using multilevel analysis).

Hypothesis 1.0: Relations of coping to distress. Is the use of relationship-, emotion-, and problem-focused coping independently associated with

TABLE 2
Zero-order correlations of study variables

Variables	1	2	3	4	5	6	7	8	9
1. Relationship-focused coping									
2. Cognitive restructuring	.45**								
3. Reproach coping	.26*	.15							
4. Problem-focused coping	.49**	.13	.25*						
5. Spouse response	.31**	.00	–.32**	.21					
6. Parent age	–.15	–.16	–.39**	–.29**	–.05				
7. Parent gender[a]	–.08	.12	–.26*	–.22*	–.04	.20			
8. Years parent cohabitating	–.31**	–.16	–.24	–.27*	–.22*	.75**	.007		
9. Child age	–.06	–.16	–.18	–.02	.03	.64**	.11	.60**	
10. Psychological distress	.27*	.21*	.42**	.23*	–.28*	–.17	–.18	–.12	–.18

**$p \leq .01$; *$p \leq .05$.
[a]1 = female, 2 = male.

psychological distress? We specified a model predicting psychological distress that included levels of relationship-focused coping, emotion-focused coping (cognitive restructuring and reproach coping), and problem-focused coping. All coping subscales were grand mean-centered. Findings indicated that higher reported use of reproach coping was significantly and independently related to greater psychological distress, $\beta = 0.36$, $t(79) = 3.07$, $p = .003$. However, the use of relationship-focused coping, cognitive restructuring and problem-focused coping were not significantly related to psychological distress after controlling for other ways of coping, $\beta = 0.11$, $t(79) = 0.88$, $p > .05$, $\beta = 0.09$, $t(79) = 0.81$, $p > .05$, and $\beta = 0.08$, $t(79) = 0.76$, $p > .05$, respectively.

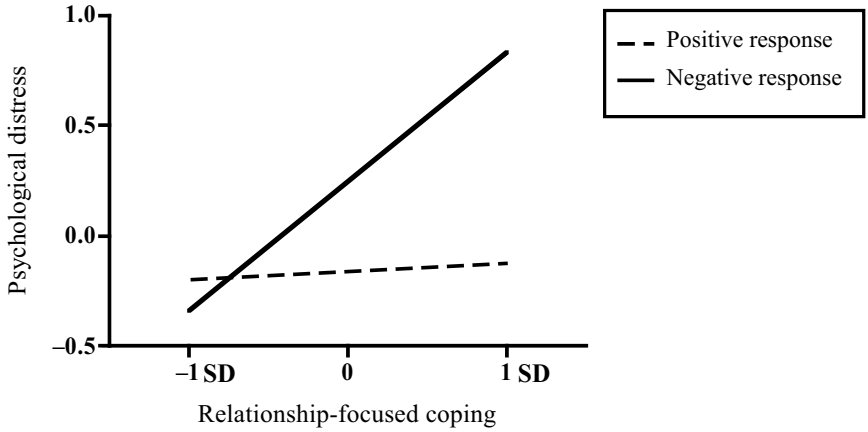
Hypotheses 2.1–2.3: Coping and the response of others. Are perceptions of spouse responses to coping significantly associated with psychological distress, independent of ways of coping? Do spouse responses to coping moderate the relationship between coping and psychological distress? Given the multicollinearity among coping subscales and interaction terms, separate equations were run for each of the four types of coping. Interaction terms were created by taking the cross-product of each of the centered coping subscales and the total spouse response score (Aiken & West, 1991).

Hypothesis 2.1: Relationship-focused coping. Relationship-focused coping and perceptions of spouse responses each made independent contributions to levels of psychological distress. Specifically, higher reported use of relationship-focused coping was significantly related to higher reported distress, $\beta = 0.39$, $t(81) = 3.80$, $p = .001$, and more positive perceptions of spouse responses were associated with lower reported distress, $\beta = –0.40$, $t(81) = –3.47$, $p = .001$. Further, a significant interaction was found such that the association between higher use of relationship-focused coping and higher distress was attenuated in the context of positive ratings of spouse responses to coping, $\beta = –0.26$, $t(80) = –3.62$, $p = .001$ (see Figure 1).

Hypothesis 2.2: Emotion-focused coping. The use of *cognitive restructuring* did not make an independent contribution to levels of psychological distress, $\beta = 0.21$, $t(81)=1.98$, $p > .05$. However, after controlling for levels of cognitive restructuring, positive perceptions of spouse responses were significantly associated with lower levels of psychological distress, $\beta = –0.28$, $t(81) = –2.48$, $p = .01$. Next, we entered the interaction term to test for a synergistic effect between cognitive restructuring and ratings of spouse responses. Results revealed the interaction term to be significantly related to psychological distress, $\beta = –0.30$, $t(80) = –2.91$, $p = .004$. As shown in Figure 2, the use of cognitive restructuring was related to *higher* levels of psychological distress in the context of negative spouse responses to coping. In contrast, the use of cognitive restructuring was associated with *lower* levels of distress among those who reported positive spouse responses.

Greater use of *reproach coping* was significantly related to higher psychological distress, $\beta = 0.37$, $t(81) = 3.43$, $p = .001$. However, after controlling

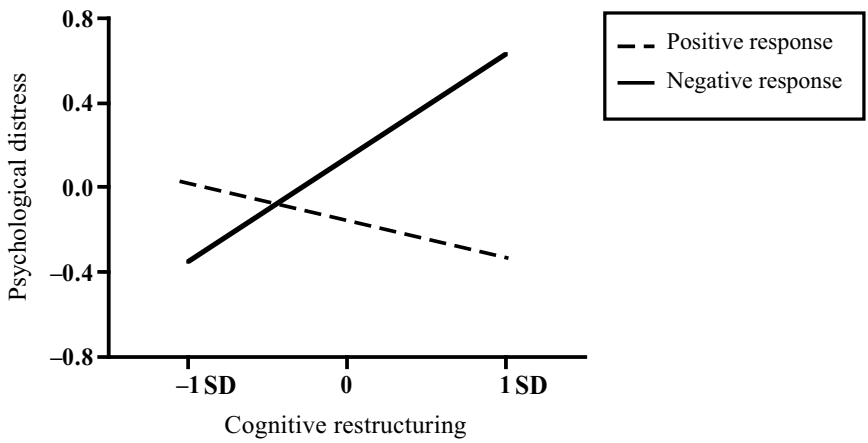
FIGURE 1
Psychological distress as a function of relationship-focused coping and spouse response.



Note. All variables have been standardized.

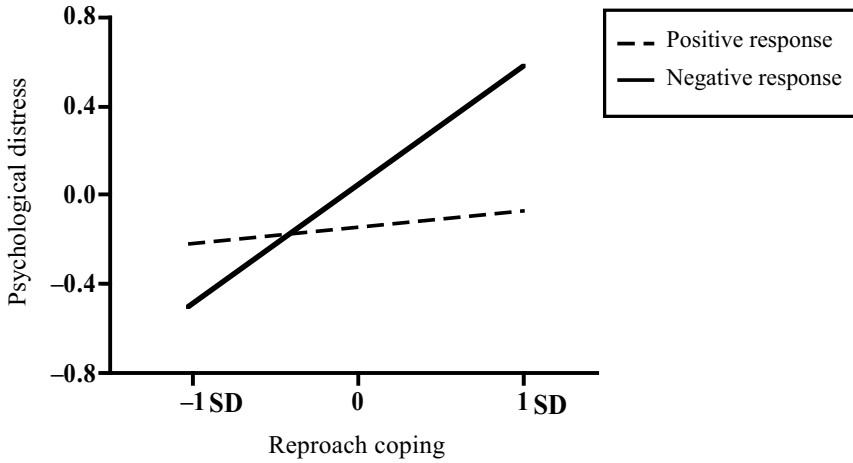
for the use of reproach coping, spouse responses to coping did not significantly predict psychological distress, $\beta = -0.16$, $t(81) = -1.74$, $p > .05$. Analyses revealed that the interaction term was a significant predictor, $\beta = -0.25$, $t(80) = -2.73$, $p = .01$. As shown in Figure 3, spouse responses to coping moderated the relationship between reproach coping and distress

FIGURE 2
Psychological distress as a function of cognitive restructuring and spouse response.



Note. All variables have been standardized.

FIGURE 3
Psychological distress as a function of reproach coping and spouse response.



Note. All variables have been standardized.

such that the association between reproach coping and distress was attenuated among individuals who reported more positive spouse responses.

Hypothesis 2.3: Problem-focused coping. Problem-focused coping and spouse responses to coping each accounted for a significant amount of variance in psychological distress. Specifically, higher reported use of problem-focused coping was associated with higher reported distress, $\beta = 0.30$, $t(81) = 2.96$, $p = .004$, and positive perceptions of spouse responses were significantly associated with lower reported distress, $\beta = -0.34$, $t(81) = -3.16$, $p = .002$. The interaction term was non-significant, $\beta = -0.10$, $t(80) = -1.14$, $p > .05$. See Table 3 for a summary of the HLM findings.

TABLE 3
Hierarchical Linear Model (HLM): Relations of coping and spouse response to psychological distress ($N = 84$)

	Psychological distress (β)			
Effect[a]	**Cognitive restructuring**	**Reproach**	**Relationship focused**	**Problem focused**
Main effects				
Coping	0.22	0.37**	0.40***	0.30**
Spouse response	–0.28*	–0.16	–0.40**	–0.34**
Interaction				
Coping × Response	–0.30**	–0.25**	–0.26**	–0.10

*$p < .05$; **$p < .01$; ***$p < .001$.
[a]All variables have been standardized.

Discussion

Decades of research has demonstrated that an examination of the ways in which individuals deal with stress can be helpful in predicting psychological adjustment to stressful events and circumstances. However, findings from the current study suggest that even when individuals use similar coping strategies, the relative effectiveness of these strategies may vary, depending on the social context in which they are employed. Among a sample of parents raising a child with a disability, more favorable spouse responses to coping were related to lower levels of psychological distress. Although the use of various ways of coping with caregiving stress was also predictive of distress, the relationship between these variables differed based on perceptions of spouse responses.

As expected, greater use of reproach coping was associated with higher levels of psychological distress. In fact, when all four of the coping strategies were added into the same model, reproach coping was the only strategy that was independently associated with distress. Reproach coping incorporated a group of strategies that involved antagonistic actions toward both the self (e.g., self-blame) and others (e.g., confrontation, withdrawal) and these strategies have been found to be consistently related to negative outcomes in past research (e.g., Epping-Jordan et al., 1999; Griffin et al., 2001). However, once parents' use of reproach coping was placed in the context of spouse responses, the detrimental effects were attenuated among those who reported positive responses from the spouse.

Surprisingly, the use of relationship-focused coping was also found to be associated with *higher* levels of distress. However, a significant interaction between relationship-focused coping and perceptions of spouse responses indicates that the effectiveness of this strategy was also determined (at least in part) by the social environment. That is, the use of relationship-focused coping in the context of perceived negative spouse responses was associated with greater psychological distress. In contrast, the use of relationship-focused coping in the context of positive perceptions of spouse responses was unrelated to psychological distress. This pattern of findings is consistent with past research on couples suggesting that the benefits of accommodation (i.e., one's willingness to respond in a constructive manner when a partner has behaved negatively) may depend on the extent to which these responses are met with accommodating responses by one's partner (O'Brien & DeLongis, 1997; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Our findings suggest that if a parent engages in efforts to compromise and provide empathy during stressful caregiving situations, and his or her spouse does not reciprocate, these efforts may actually result in heightened levels of distress.

Findings suggest that the use of cognitive restructuring to cope with caregiver stress may be effective in reducing levels of psychological distress, but only under conditions of positive responses from the spouse. Among parents who reported *negative* responses from the spouse, the use of cognitive restructuring was associated with *greater* levels of distress. This finding is

consistent with previous research demonstrating that the benefits of emotional expression may be lost when these efforts are met with an unsupportive or critical ear (e.g., DeLongis et al., 1986; Lepore et al., 1996).

In contrast to emotion- and relationship-focused coping strategies, the relationship between problem-focused coping and distress was not influenced by perceptions of spouse responses to coping. A failure to find a role for spouse responses may reflect the fact that generating solutions to a problem, or attempting to put a plan into action may be strategies that can be carried out relatively independently of one's spouse.

In addition to our findings regarding the moderating effects of spouse responses to coping, we also found that negative spouse responses to coping were directly related to higher levels of psychological distress. This finding is consistent with a wealth of literature demonstrating associations between dissatisfaction with support and negative psychological and physical well-being (e.g., Holtzman, Newth, & DeLongis, 2004; House, Landis, & Umberson, 1988; Walen & Lachman, 2000).

Although our primary hypotheses were supported by the data, there are some limitations to the study. First, in light of the cross-sectional nature of the study, participants who are experiencing greater distress may be more likely to interpret coping responses from the spouse as negative. This explanation is consistent with literature suggesting that initial emotional states may influence perceptions of ambiguous social interactions (Cohen, Towbes, & Flocco, 1988). Past research has also found an association between distress and marital conflict, such that one partner's symptoms of depression can lead to unsupportive and rejecting behaviors from the spouse, and vice versa (Benazon & Coyne, 2000; Coyne, Thompson, & Palmer, 2002). Therefore, our findings may be explained in part by this bidirectional relationship between distress and negative responses from the spouse. Furthermore, distress may interact with ways of coping to predict the response of others. For example, distress may lead to negative responses from the spouse when this distress is associated with greater use of reproach coping. On the other hand, if an individual is experiencing high levels of distress, but is able to cope using relationship-focused strategies, a spouse may be less likely to respond in a negative way. Future research would benefit from examining relations of coping, spousal responses to coping, and distress across time, using daily process methods (DeLongis & Holtzman, 2005).

Second, parents in our study were caring for children with a range of disabilities, and there was some variation in the nature, duration, and severity of reported caregiving stressors. Due to power constraints, we were unable to test whether the impact of coping and the response of others varied across different disabilities and caregiving stressors. Further research is needed to investigate whether dyadic coping processes are influenced by such factors. For example, based on the stress-buffering hypothesis of social support (Cohen & Wills, 1985), spouse responses to coping may be more important for well-being among parents who are experiencing higher perceived burden related to caregiving demands. This information will be useful in identifying families that may benefit most from clinical intervention. The extent to which

our findings are generalizable to parents raising children with disabilities not assessed here also requires further investigation.

Third, since we assessed spouse responses to coping using a categorical rating scale (positive, neutral, negative), we lack qualitative information regarding what our participants considered to be supportive versus unsupportive in dealing with caregiving stress. Certain types of responses are likely to be considered more helpful than others, and may depend on the particular coping strategy being used. For instance, if a spouse is coping by "taking it out on his or her partner" (i.e., reproach coping), they may prefer that their partner attempt to engage them in a discussion of what is underlying their anger and frustration, rather than ignoring the behavior or trying to change the topic. On the other hand, if a spouse is attempting to cope with stress by "trying to forget the whole thing" (i.e., distancing) a partner pressing for a discussion of the stressful topic may not be the desired response. Rather, they may prefer that their spouse refrains from bringing up the issue, or that they offer some type of distraction. Future research would benefit from obtaining additional information regarding the specific spouse behaviors that are interpreted as positive versus negative responses, and the extent to which desired responses differ across caregiving stressors. These findings could help to inform clinicians' recommendations regarding how parents can best help each other cope with the challenges of raising a child with a disability.

Finally, because only 62% of parents invited to participate in the study actually did so, it is possible that our findings were influenced by a self-selection bias. It may be that only the better adjusted of parent caregivers returned questionnaires. However, we have no reason to believe that the response of others would *not* impact coping outcomes among those who are most severely distressed. Nevertheless, future work is necessary to clarify the extent to which our findings generalize to individuals experiencing varying degrees of distress across different types of stressors.

Despite these limitations, the current study highlights the importance of understanding how individuals perceive the response of others to their own coping efforts, and how these perceptions might influence coping effectiveness and well-being. This study also provides guidance regarding the assessment of perceived responses of others to coping. Although our response index was used in conjunction with a revised version of the WOC (Lee-Baggley et al., 2005) this index could easily be applied to other existing measures of coping. Our findings also suggest that psycho-educational interventions geared toward teaching coping skills are likely to be more effective if significant others are included in the treatment process. Clinicians may be setting patients up for failure if they encourage them to engage in "adaptive" ways of coping without considering the social context in which they are being used. Indeed, research by Keefe et al. (1999) and others (Martire et al., 2003; Radojevic, Nicassio, & Weisman 1992) has found evidence for the superiority of psychosocial coping interventions for patients with arthritis that include the spouse. Given the communal nature of many of the stressors faced by parents raising a child with a disability,

we expect that a dyadic approach to coping skills interventions will be particularly important in ensuring the best possible outcomes for this population.

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