

Matching Pain Coping Strategies to the Individual: A Prospective Validation of the Cognitive Coping Strategy Inventory

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Accepted for publication: December 8, 1991

The validity of the Cognitive Coping Strategy Inventory (CCSI; Butler et al., 1989) was tested in a prospective fashion. Subjects were randomly assigned to one of three conditions. Some were "matched" to a strategy for which they received a high CCSI score, some were "mismatched" to a strategy for which they received a low CCSI score, and some were given a choice of strategies. Those subjects using a matched strategy obtained better threshold and tolerance times on the cold pressor than subjects who used a mismatched strategy. Despite clear differences in exposure to the cold pressor these conditions did not differ from each other in self-reported levels of pain. It was concluded that the CCSI appears to be a valid and useful tool for selecting a coping strategy to help particular individuals manage acute pain. Though the CCSI is relatively easy to administer and score, the comparative costs and benefits of using it must be weighed against the somewhat more efficient approach of simply offering the subject a choice of treatments. Subjects given a choice of strategies performed as well as subjects matched to a strategy on the basis of CCSI scores.

KEY WORDS: pain; coping; individual differences; assessment; treatment.

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INTRODUCTION

Several investigators have begun the search for individual differences that might help us be more selective in determining which treatments to provide particular clients (Akins *et al.*, 1982; Altmaier *et al.*, 1982; Efran *et al.*, 1989; Martelli *et al.*, 1987). This is especially true in pain research, where it has been determined that a variety of cognitive and behavioral interventions are generally effective (McCaul and Malott, 1984; Tan, 1982; Turner and Chapman, 1982), though it is also recognized that there are considerable individual differences in coping ability and style (Byrne, 1961; Lazarus, 1984; Miller, 1987). A recently published assessment device, the Cognitive Coping Strategy Inventory (CCSI; Butler *et al.*, 1989) has the potential for allowing us to efficiently determine an appropriate coping strategy for particular individuals in acute pain settings. The present investigation sought to provide further validation for this instrument by testing it in a prospective fashion and by comparing it to the relatively more efficient treatment matching strategy of simply offering the client a choice.

The CCSI was specifically developed to parallel the coping strategies described by Turk *et al.* (1983) in their stress-inoculation training program. Seventy items are spread equally among seven scales. Six of the scales include behaviors related to the use of six coping strategies. These are imaginative inattention, imaginative transformation of context, imaginative transformation of sensation, attention diversion—external, attention diversion—internal, and somatization. The seventh scale is catastrophizing and consists of negative cognitions that would be expected to interfere with coping attempts and exacerbate the experience of pain. When completing the inventory, the individual is asked to indicate how often he or she engages in each particular behavior or thought when experiencing pain.

In the original validation studies, Butler and his colleagues (1989) had postsurgical patients rate their pain and coping attempts shortly after undergoing surgery. They found that scores on the CCSI were related to medication use, pain reports, and independent judgments of subjects' pain tolerance. Each scale demonstrated acceptable internal consistency; coefficient alphas ranged from .75 to .90. A factor analysis suggested that the six coping strategy scales may not be assessing distinctly different ways of coping but, rather, may be generally reflective of overall attempts at coping. Despite the apparent intercorrelations among the six coping strategy scales, we felt that this instrument held promise as a clinical and research instrument. Scores from the CCSI tell us something about how an individual has coped with pain in the past and suggest a particular approach to intervention.

One possible criterion for testing the CCSI's ability to identify a useful coping strategy for a particular individual would be to compare the results of strategy assignment by the CCSI with those of individuals who simply chose their own coping strategies. On the basis of clinical experience, Turk *et al.* (1983) have recommended that clients be offered a "menu" of treatment options. Theoretically, this is done to increase the client's involvement in therapy and has the potential benefit of allowing the client to select the approach that he or she believes will work best. It has often been assumed that clients are aware of their own skills and abilities, can recall the relative successes of their previous attempts at coping, and may, in fact, know better than the therapist which strategy will work best for them. Some empirical reports have supported the idea that offering the client a choice may be an efficient means of maximizing treatment outcomes for a variety of problems (Devine and Fernald, 1973; Gordon, 1976; Mendonca and Brehm, 1983) including the tolerance of acute pain (Rokke *et al.*, 1991; Rokke and Lall, 1992). Choosing may improve outcomes for several reasons, including generating a sense of control, creating cognitive dissonance, which would lead to increased motivation to prove that the right choice was made, and capitalizing on one's skills.

In the present study, we wanted to determine if the CCSI was capable of selecting an effective strategy for individuals. We were interested in whether the strategies selected by the CCSI would be as effective as those chosen by individuals. We were also curious about whether the strategy that individuals chose for themselves would correspond to the strategy for which they received their top CCSI score. Subjects either were assigned to a coping strategy based on their responses to the CCSI or were given a choice of strategies. For those subjects who were assigned to a coping strategy, some were assigned to a strategy for which they received a high score on the CCSI (matched condition) and other subjects were assigned to a strategy for which they received a low score on the CCSI (mismatched condition). When given a choice, we expected that subjects would choose the strategy that they believed would be most effective for them. If the CCSI validly measured an individual's use of preferred coping strategies and developed coping skills, then we expected subjects to choose strategies that were among those receiving the highest scores on the CCSI. Because subjects in the choice and matched conditions were supposedly using a strategy with which they had more experience, we expected them (a) to report the strategy to be more credible, (b) to report higher levels of self-efficacy, and (c) to tolerate the cold pressor better than subjects who were mismatched. To the extent that a choice of strategies enhanced some other cognitive or motivational process beyond those associated with skills matching, such as sense of control or cognitive dissonance, it was also possible

that subjects who were given a choice would tolerate the cold pressor better than subjects assigned to a matching strategy.

METHOD

Subjects

The final sample consisted of 74 undergraduate psychology students (51 of whom were women). The mean age was 21.7 and they ranged in age from 18 to 46 years. Six volunteers were excluded from participation because of medical contraindications to placing the hand in cold water (e.g., previous trauma to the hand, hypertension, Reynaud's disease). A maximum exposure time of 5 min was imposed to ensure the safety of the subjects. Because of this, a pretreatment tolerance time limit of 3.5 min was established to allow some room for improvement between pretest and posttest cold pressor trials. Three subjects who exceeded this time limit on the pretest were excluded from the study. All subjects received extra credit toward their course grade for participating in this study.

Apparatus

A 2-gal, insulated, plastic cooler was used for the cold pressor. A wire-mesh cylinder was placed in the center of the cooler and crushed ice was packed around the outside of this cylinder. An air hose was inserted down the side of the cooler and terminated at the bottom and center of the mesh cylinder. An aquarium pump was used to continuously circulate the water, which was maintained at a constant temperature between 0 and 1°C.

Measures

Manipulation Check. Subjects rated the extent to which they thought about the strategy, the extent to which they used the strategy that they were supposed to use, and the extent to which they thought about other things or other strategies. These three items were rated on a scale that ranged from 0, "not at all," to 100, "very much."

Pain. Three measures of pain were used. Subjects were asked to indicate "the first point at which you consider the sensations you are experiencing in your hand to be painful" and then were instructed to keep the hand in the water "for as long as possible, until you just can't take it

any more." The experimenter recorded the point in time that the subject indicated the cold pressor was first becoming painful and the total time the hand was in the water to the nearest second as measures of pain threshold and pain tolerance, respectively. Immediately following the cold pressor trial, subjects completed the adjective portion of the McGill Pain Questionnaire (MPQ; Melzack, 1975) to describe their pain at its worst while their hand was in the water. The total pain rating index was derived by summing the scores across all adjective categories. This score has been shown to measure reliably the intensity of pain associated with the cold pressor (Klepac *et al.*, 1981a, b).

Expectancies. Measures of treatment credibility, perceived control, and self efficacy were obtained. Credibility was assessed by a seven-item scale that was originally adapted from Borkovec and Nau (1972) and subsequently shown to be internally consistent and able to discriminate among various treatments for depression (Rokke *et al.*, 1990). The scale includes questions of how logical, scientific, complete, generalizable, and effective the strategy is, as well as how likely it was that the subjects would use the strategy if injured or required to undergo a painful medical procedure, and whether they would recommend the strategy to a close friend or relative in similar circumstances. The items were rated on a 7-point scale, with higher scores reflecting a higher degree of credibility. An average rating was used for analysis.

Perceived control was measured by the Pain Beliefs Questionnaire (Rokke *et al.*, 1991). Nine items are rated on a 7-point semantic differential scale. The content of this scale is specifically directed toward the subjects' belief in their ability to control their pain while their hand is in the water and their ability to use the coping strategy while experiencing pain. A single score was obtained by averaging the ratings of the nine items.

Self-efficacy was measured by the Personal Ability Scale (Glasgow *et al.*, 1982). The 11 items of this questionnaire ask the subjects to indicate whether they will be able to tolerate the cold pressor for a certain length of time. The times indicated in the first two items are 15 seconds and 30 sec. From this point on, the stated time progresses in 30 sec intervals. Subjects indicate whether they believe they can keep their hand in the water for each specified length of time and then rate their degree of certainty on a 100-point scale, from 0, "completely uncertain," to 100, "completely certain I can keep my hand in this long." The number of items the subject reported that he or she could complete served as the measure of level of self-efficacy. The average certainty rating of all items served as the measure of strength of self-efficacy.

Coping Strategies

The six coping strategies that we used were derived from Turk *et al.* (1983). Each of the strategies is listed below with a brief statement that was used as part of the description presented to subjects. To illustrate the relationship between the CCSI subscales and the coping strategies a few relevant CCSI items are listed in quotations after the descriptive statement. The CCSI items and their particular contents were not part of the descriptions presented to subjects.

(1) *Imaginative Inattention.* This strategy involves focusing your attention on an image that is incompatible with the experience of pain. Sample items include "I think of photographs or paintings that I have seen in the past" and "I picture in my 'mind's eye' a lush, green forest or other peaceful scene."

(2) *Imaginative Transformation of Context.* This strategy involves using your imagination to change the context in which you experience the painful sensations. Imagination can be used to influence your emotions and motivations. For example, "I might imagine that I am with a date/spouse and feel the pain but don't want to let on that it hurts too much" or "I might think of myself as a prisoner who must withhold secrets under torture to protect my friends or country."

(3) *Imaginative Transformation of Pain/Sensation.* This strategy lets you use your imagination to transform the sensations of pain into something other than pain. For example, "If my pain feels severely throbbing I might tend to imagine it as only a dull ache" or "I try and pretend that the pain is really only a feeling of pressure."

(4) *Attention Diversion: External.* This strategy involves redirecting and focusing your attention on things around you, anything but the sensations in your hand. Sample items include, "I might count ceiling tiles or other objects in the room in order to occupy my mind" and "If possible, I would try and read a book or magazine to take my mind off the pain."

(5) *Attention Diversion: Internal.* This strategy is intended to help you redirect your attention away from the painful stimulus by thinking of something that is mentally challenging and distracting. For example, "I think of jokes that I have heard" or "I might do mental arithmetic problems to keep my mind occupied."

(6) *Somatization.* This strategy allows you to experience and focus on the sensations you are experiencing but works by having you reinterpret or relabel them in nonpainful terms. Some people might think, "I attend to and analyze my pain as perhaps a doctor or scientist might" or "I might pay attention to the parts of my body that do not hurt and compare how much better they feel than where the pain is."

Procedure

Following informed consent, subjects completed a brief medical history checklist and provided demographic information. Subjects completed the CCSI and two personality questionnaires that were not essential to the study. The questionnaires were administered on a personal computer. A program written in BASIC was used to present each item of the CCSI individually. The program automatically scored the responses and printed a hard copy of the results. The results were not presented on the computer monitor and subjects were not given any feedback about their responses. Subjects were pretested on the cold pressor task using the nonpreferred hand and then completed the MPQ.

Subjects were then randomly assigned to one of three conditions with the constraint that approximately equal proportions of males and females were assigned to each condition. Subjects were given a choice of six coping strategies to learn, were assigned to a strategy that matched the coping behaviors they typically engaged in according to the CCSI, or were assigned to a strategy that, according to the CCSI, consisted of a means of coping they used less frequently (a mismatched condition). An attempt was made to yoke the assignments of subjects in the matched and mismatched conditions to strategies that had been previously used by subjects in the choice condition. We did this for subjects in the matched condition by looking at the top three scores on the CCSI and assigning the one that had been chosen previously. For subjects in the mismatched condition we assigned the strategy with one of the three lowest scores as long as it had been previously chosen. In the event that a subject could not be paired with a subject in the choice condition, that subject was assigned to the strategy with either the highest or the lowest score, depending on the condition. In this way, we tried as best we could, within the limits of the subjects' choices and the variability of CCSI scores, to equate the three conditions in terms of the strategies used.

The six strategies were briefly described to all subjects in oral and written formats. Subjects were then either given a choice of the strategy they would like to use or were told that we were studying the effectiveness of various strategies and that for the purposes of research each subject had been randomly assigned to use a particular coping strategy. The strategy that was to be used was briefly described again and subjects completed the Credibility Questionnaire and the Pain Beliefs Questionnaire. Each subject was then trained in the use of the coping strategy. Training lasted for about 8 to 10 min for each subject and consisted of a brief rationale, instructions, and guided imaginal practice. Each subject was encouraged to supply personally meaningful content and details. The experimenter provided

Table I. Frequency of Coping Strategy Use by Each Condition

Condition	Strategy						<i>n</i>
	1	2	3	4	5	6	
Choice	7	3	4	4	2	4	24
Match	5	1	3	7	7	2	25
Mismatch	6	4	3	2		10	25
Total	18	8	10	13	9	16	74

Note. Strategies: 1 = imaginative inattention; 2 = imaginative transformation/context; 3 = imaginative transformation/sensation; 4 = attention diversion/external; 5 = attention diversion/internal; 6 = somatization.

feedback and suggestions on how to incorporate that detail into the coping strategy. Before the second cold pressor trial, subjects completed the Personal Ability Scale. Subjects were exposed to the cold pressor and then completed the MPQ and manipulation check questions.

RESULTS

Preliminary Analyses

In order to conclude that our manipulation was responsible for any observed differences among the conditions, it was necessary to demonstrate that these differences could not be accounted for by differential strategy use or effectiveness. Table I lists the frequency at which each strategy was used in each condition. A chi-square analysis demonstrated that the distribution of strategies among the three conditions was not equal [$\chi^2(10, n = 74) = 20.12, p < .05$]. Clear cross condition discrepancies can be seen in the attention diversion/internal and somatization strategies. No one was assigned to the attention diversion/internal strategy as a mismatch and many more were mismatched with somatization than chose it. In order to help rule out differential strategy use as a potential explanation of discrepancies in outcome, we decided to analyze only the data for strategies that were relatively evenly distributed across the three conditions. When subjects who had used the attention diversion/internal and somatization strategies were eliminated from the data set, we were left with 49 subjects (37 women and 12 men), 18, 16, and 15 in the choice, matched, and mismatched conditions, respectively. The chi-square testing the distribution of

Table II. Frequency of Strategy Use by the Strategy's Rank Order on the CCSI

Condition	Rank of strategy						<i>n</i>
	1	2	3	4	5	6	
Choice	6	4	2	5		1	18
Match	11	3	2				16
Mismatch				1	5	9	15
Total	17	7	4	6	5	10	49

Note. A rank of 1 means the strategy that was used received the highest score on the CCSI for the individual. A rank of 6 means that it received the lowest score.

strategies among the conditions was no longer significant [$\chi^2(6, n = 49) = 5.13, p > .50$].

Three analyses of covariance were conducted to test for differential effectiveness of the four strategies included in the final analyses. When controlling for pretreatment variability on each respective measure, the strategies did not differentially affect posttreatment pain as assessed by threshold times [$F(3,44) = 0.87, p < .50$], tolerance times [$F(3,44) = 1.62, p < .20$], or the MPQ [$F(3,44) = 1.40, p < .30$]. Analyses of variance were also conducted on the three manipulation check measures and on the catastrophizing scale of the CCSI. The three conditions and the two genders did not differ from each other in how much they thought about the strategy, how much they used the strategy, how much they thought about other things or other strategies, or mean levels of catastrophizing (all p 's $> .10$). These analyses confirm that the three conditions cannot be differentiated from each other on the basis of strategy effectiveness or strategy use. Any differences found in further analyses can be attributed to the experimental manipulation.

As a point of interest, subjects in the choice condition did not always choose the strategy that was among those with the highest scores on the CCSI. Table II presents the distribution of strategies used by individuals in the three conditions according to the rank order of the strategy's CCSI score. A rank of 1 indicates that the strategy received the highest CCSI score, whereas a rank of 6 was assigned to the strategy with the lowest CCSI score. It can be seen that while a majority of subjects chose to use a strategy that was among their top three strategies (the modal choice being the first ranked strategy), 6 of the 18 subjects chose a strategy that was among their bottom three scores. Table II also shows that matched and mismatched subjects were indeed assigned to strategies that they had rated among either the top or the bottom three.

Table III. Observed and Adjusted Mean Threshold Times (Seconds) for Each Condition

Condition	<i>n</i>	Pretest	Posttest	Adjusted*
Choice	18	19.0 (17.4)	40.7 (40.8)	53.9 ^a
Matched	16	25.6 (13.0)	58.1 (36.9)	53.1 ^a
Mismatched	15	14.3 (9.8)	17.9 (9.2)	22.3 ^b

Note. Numbers in parentheses are standard deviations.

*Adjusted means with unmatched superscripts are significantly different from each other, $p < .05$.

Pain

Separate 3 (condition) \times 2 (gender) analyses of covariance were conducted on each of the posttreatment pain measures using the appropriate pretreatment scores as covariates. Table III presents the observed and adjusted mean threshold times for each condition. It can be seen that the adjusted mean threshold times of the three conditions were different from each other [$F(2,42) = 5.22, p < .01$]. The effect for gender was not significant [$F(1,42) = 3.36, p < .10$], nor was the condition \times gender interaction [$F(2,42) = 2.92, p < .10$]. The three conditions were compared with each other using the Tukey formula for maintaining alpha at .05 (Keppel, 1973). The minimum pairwise difference between adjusted means was calculated using the within-cells mean square error term from the analysis of covariance and was determined to be 13.41. Table III shows that subjects in the choice and matched conditions obtained higher threshold times than subjects in the mismatched condition but were not different from each other.

Table IV lists the observed and adjusted mean tolerance times for the men and women in each condition. The analysis of these data yielded a main effect for condition [$F(2,42) = 5.70, p < .01$], a main effect for gender [$F(1,42) = 4.40, p < .05$], and a significant condition \times gender interaction [$F(2,42) = 6.08, p < .01$]. Post hoc analyses were conducted by using the Tukey formula for calculating the minimum pairwise difference necessary to determine that any one of the six adjusted means was different from any other. In this case, the minimum difference in tolerance times required is 28.6. Looking at the influence of the manipulation within gender, Table IV shows that women who were matched to a strategy tolerated the water for a longer period of time than women who were mismatched. Women who were given a choice did not differ from those in other conditions in their tolerance times. In contrast, men who were given a choice tolerated the water for a longer period of time than men in both

Table IV. Observed and Adjusted Mean Tolerance Times (Seconds) for Each Condition by Gender

Condition	Gender	n	Pretest	Posttest	Adjusted*	Marginal
Choice	Men	3	44.0 (17.3)	207.7 (130.5)	217.1	159.1
	Women	15	34.5 (22.0)	72.7 (46.3)	101.1 ^{ab}	
Matched	Men	4	37.0 (20.9)	107.8 (71.3)	131.2	129.5
	Women	12	57.1 (30.1)	144.7 (93.3)	127.8 ^{ac}	
Mismatched	Men	5	86.8 (68.9)	159.4 (129.8)	83.0	91.0
	Women	10	32.7 (15.4)	67.0 (36.0)	99.0 ^b	

Note. Numbers in parentheses are standard deviations. Marginal means are posttest means which have been adjusted to account for pretreatment variability and collapsed across gender.

*All means for the men are significantly different from each other, $p < .05$. Among the women, means with unmatched superscripts are significantly different from each other, $p < .05$.

other conditions. Men who were matched to a strategy obtained higher tolerance times than those who were mismatched. Despite large differences in length of exposure to the cold pressor, there were no differences among conditions or between genders in terms of their self-reported pain on the MPQ (all F 's < 1.0).

Expectancies

A 3 (condition) \times 2 (gender) analysis of variance was conducted on each of the expectancy measures. The results indicated that the experimental manipulation produced reliable differences in the perceived credibility of the strategies [$F(2,43) = 3.50, p < .05$]. Post hoc analyses using Tukey's method for maintaining the overall alpha rate at .05 indicated that subjects who were given a choice rated the strategy they used as being significantly more credible ($M = 5.22, SD = .64$) than subjects who were mismatched to a strategy ($M = 4.48, SD = .78$). Subjects in the choice and matched conditions ($M = 4.71, SD = 1.04$) did not differ from each other in credibility ratings nor did subjects in the matched and mismatched conditions. No effects were observed on measures of sense of control or level and strength of self-efficacy, (all p 's > .05).

DISCUSSION

The present study was conducted to test prospectively the validity of the Cognitive Coping Strategy Inventory (Butler *et al.*, 1989). The data consistently demonstrated that the CCSI was able to meaningfully measure individual coping abilities. Subjects who were assigned to a strategy that received a high CCSI score demonstrated increased pain threshold and tolerance times in comparison to subjects who were assigned to a strategy that received a low CCSI score.

It was also hypothesized that subjects in the matched condition would show more positive expectancies than subjects who were mismatched. We had believed that the matched strategy would represent the behaviors and thoughts which the individual characteristically used to cope with painful events. It was expected, therefore, that the subject would be more likely to view the strategy as a believable strategy for coping with pain and would be confident of being able to use the strategy to reduce the experience of pain. The assignment of subjects to a matched or mismatched strategy, however, did not affect reports of credibility, sense of control, or self-efficacy. It is possible that differences in expectancies were not found because these

strategies are all relatively credible and easy to use regardless of prior experience. Alternatively, it is also possible that the labels for the strategies and the stressful circumstances were novel enough that subjects did not use their prior experience in making credibility and efficacy judgments. This could be either because they did not see the connection between their previous coping attempts and this setting or because those experiences were not seen as relevant. Because expectancies were not influenced, it is possible that the differences in outcome between matched and mismatched subjects are directly related to skill level. That is, as a result of experience, subjects in the matched condition more efficiently and effectively applied the coping behaviors than subjects in the mismatched condition.

Taking only a matter of minutes to complete, the CCSI is an efficient way to measure coping behavior. It is not, however, quite as cost effective as simply offering the subject a choice of strategies. Women who were given a choice could not be differentiated from those who were matched to a strategy in terms of threshold or tolerance times. Men, on the other hand, performed better when given a choice of strategies. It is not clear why this would be so, except that it may have something to do with the trend for subjects in the choice condition to report higher levels of treatment credibility. This may be a reflection of improved attitudes toward the treatment and of an increase in motivation as a result of cognitive dissonance (Gordon, 1976; Mendonca and Brehm, 1983). It should also be noted that, although highly significant in a statistical sense, the better performance exhibited by men who were given a choice is based on a small number of subjects.

It was also interesting to note that subjects did not always choose to use a strategy which the CCSI would have predicted to be a good strategy for them. On the basis of the present study, we are unable to know why this was so. It may be that some subjects did not believe that their past coping attempts were very successful and, thus, desired to try something new. It may also be that these subjects were simply curious to try something different and novel, regardless of how effective their own strategies may have been in the past. This finding does imply that the CCSI adequately measures past coping experience but does not necessarily indicate current subject preferences. In terms of effectiveness, we do not know if these few subjects chose the best strategy for themselves. We can only wonder what the results would have looked like had we restricted the subjects choices to those strategies with relatively higher CCSI scores.

Prior to our concluding remarks, we would like the reader to observe that this study was based on a rather small sample of healthy, and primarily female, young adults. The context was also clearly analogue. Though this study represents the first promising step, similar work needs to be conducted

on a larger and more varied sample within the confines of clinical settings. Whether or not the CCSI is predictive of outcomes in the treatment of clinical pain remains to be an empirical question.

In summary, the CCSI was demonstrated to have predictive validity for assigning coping strategies from the stress inoculation package to healthy young adults (Turk *et al.*, 1983). It is easily administered and yields information and scores that have relevance for clinical and research endeavors. If given to a postsurgical patient who was experiencing pain, the CCSI can indicate the extent to which the patient had engaged in cognitive coping strategies as well as the types of strategies the person had used. The CCSI also includes a scale that measures the frequency of negative and catastrophic thoughts. This information may be very valuable in treatment planning. If one is not interested in the information that can be derived from the CCSI, but is concerned only with outcomes, simply offering subjects a choice of strategies is an efficient means of delivering treatment and may have an added benefit of improving the individual's perception of the utility of the strategy. Of course, it would be possible to use the CCSI and offer the subject a limited set of choices based on the CCSI scores. Further research will determine whether there might be additional benefits to using the CCSI in combination with offering a choice.

ACKNOWLEDGMENTS

We would like to acknowledge Andrea Kohler, Patty Svenby, and Paul Westerholm for their help in data collection. A special thank you is also extended to Bev Thorn for her helpful comments on an early draft of the manuscript.

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