

The Cognitive Emotion Regulation Questionnaire: Factor Structure and Psychometric Properties of the Turkish Version

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Abstract The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski et al., *Personality and Individual Differences*, 30, 1311–1327, 2001) is a multidimensional questionnaire that was developed to assess cognitive emotion regulation strategies people use after experiencing negative life events or situations. The purpose of the present study was to develop a Turkish version of the CERQ and to examine its psychometric properties in a sample of Turkish university students. The English version of the CERQ was translated and back-translated prior to its administration to 396 participants recruited from several universities in Turkey. Internal consistency, test-retest reliability, inter-scale reliability, construct and criterion-related validity of the Turkish version were analyzed. The results indicated that the data collected with the Turkish version do also support the original nine-factor model; with reliability and validity measures comparable to the original one.

Keywords Emotion regulation · Cognitive emotion regulation · Cognitive coping · CERQ

The Cognitive Emotion Regulation Questionnaire (CERQ; Garnefski et al. 2001) was developed to assess nine different cognitive emotion regulation strategies people use when they experience negative life events or situations. Although there are a number of measures that focus on how people regulate their emotions, the CERQ was the first scale that focused exclusively on the “cognitive” component of emotion regulation. The CERQ consistently demonstrated good psychometric properties across studies and has been increasingly used by researchers from different countries.

Existing evidence suggests that cognitive emotion regulation strategies assessed by the CERQ are strongly associated with psychological well-being in various age groups, in clinical and non-clinical samples, victim groups, and people with different medical conditions (e.g., Garnefski et al. 2002b; 2008; 2009a, b; Garnefski and Kraaij 2006; Kraaij et al. 2007; 2008b; Schroevers et al. 2008); invariant of gender (Garnefski et al. 2004). The increased use of *self-blame*, *catastrophizing*, and *rumination* strategies has consistently been related to maladjustment (e.g., Kraaij et al. 2009). The use of cognitive strategies such as positive reappraisal, on the other hand, was associated with psychological well-being in various studies (e.g., Garnefski et al. 2004). Although the authors’ first conceptualization of cognitive strategies was twofold (i.e., more adaptive and less adaptive), not all of the later studies confirmed this categorization. Particularly, the findings regarding *acceptance* subscale were mixed. Although *acceptance* has generally been regarded as an adaptive strategy both empirically (e.g., Garnefski et al. 2001) and theoretically (e.g., Carver et al. 1989), some studies (e.g., Martin and Dahlen 2005) showed that it may be associated with some psychological problems such as depression and stress. Thus, this initial categorization of the CERQ subscales is no more valid.

According to the relevant literature the CERQ is useful in measuring cognitive emotion regulation strategies and their relationship with emotional problems. For this reason, it was adapted into different languages such as French (Jermann et al. 2006), Chinese (Zhu et al. 2008), German (Loch et al. 2011), Spanish (Domínguez-Sánchez et al. 2012), Hungarian (Miklósi et al. 2011) and Persian (Abdi et al. 2012). However, the original 36-item form of the CERQ has not been adapted into Turkish. Except for the short form of the CERQ (Çakmak and Çevik 2010), to our knowledge at present there are no measures in Turkish that focus on the *cognitive* aspect of emotion regulation. To address this limitation and to facilitate the investigation of cognitive coping strategies in Turkish

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population, the aim of the present study was to develop a Turkish version of the original CERQ, and to examine its factor structure and psychometric properties using a Turkish sample.

The hypotheses of the current study were: 1) As in the original form, the Turkish form of the CERQ will demonstrate a nine-factor structure; 2) The Turkish form will show good internal consistency and test-retest reliability values, 3) As an evidence for construct validity, *refocus on planning*, *positive reappraisal*, and *putting into perspective* will correlate positively with problem focused coping as measured by the Ways of Coping Inventory (Folkman and Lazarus 1980); because all these scales reflect problem oriented, active management of a negative situation; 4) Again for construct validity; *positive refocusing*, *refocus on planning*, *positive reappraisal*, and *putting into perspective* will show positive correlations with scores on general self-efficacy; a theoretically relevant concept to more positive cognitive emotion regulation strategies (Garnefski et al. 2002a). On the other hand, *catastrophizing*, *self-blame*, *other-blame*, and *rumination* will not correlate or show negative correlations with self-efficacy scores; 5) As suggested by previous studies; *catastrophizing*, *self-blame*, *other-blame*, and *rumination* will show positive correlations with psychological symptoms; while *positive refocusing*, *refocus on planning*, *positive reappraisal*, and *putting into perspective* will not correlate or show negative correlations with psychological symptoms.

Method

Participants

At the Time 1 measurement the sample consisted of 396 Turkish university students (71.2 % female, $n=282$; 28.8 % male, $n=114$) with ages ranging between 18 and 47 ($M=22.55$, $SD=3.28$). In terms of perceived socioeconomic status (SES), 15.2 % ($n=60$) of the initial sample rated themselves as belonging to low, 64.1 % ($n=254$) to middle, 18.4 % ($n=73$) to high, and 0.8 % ($n=3$) to very high SES. Of the initial sample, 260 students were asked to participate in the Time 2 measurement and 107 of them (79.4 % female, $n=85$; 20.6 % male, $n=22$) accepted to participate in the Time 2 assessment that took place a month later. Independent samples *t*-tests were conducted to compare responders with non-responders at Time 2 in terms of their age, SES, and levels of psychological symptoms at Time 1 as measured by Brief Symptom Inventory (Derogatis 1993). The only significant difference was that responders were significantly older than ($m=23.25$, $sd=4.21$) than non-responders ($m=21.68$, $sd=2.93$), $t(256)=-3.51$, $p<.01$. Ages of the Time 2 sample ranged between 18 and 47 (mean

age= 23.25 , $sd=4.21$); and of them 0.9 % ($n=1$) reported themselves as belonging to low, 75.7 % ($n=81$) to middle, and 20.6 % ($n=22$) to high SES.

Materials

Cognitive Emotion Regulation Questionnaire (CERQ) The CERQ (Garnefski et al. 2001) is a 36-item self-report questionnaire that assesses the use of nine cognitive emotion regulation strategies that people use after experiencing negative life events or situations. Each subscale consists of four items representing different emotion regulation strategies, namely *self-blame*, *acceptance*, *rumination*, *putting into perspective*, *positive refocus*, *refocus on planning*, *positive reappraisal*, *catastrophizing*, and *blaming others*. The CERQ is rated on a 5-point Likert type scale ranging from 1 (*almost never*) to 5 (*almost always*), and subscale scores are obtained by summing the individual item scores that correspond to the related subscale so that each subscale has a score between 4 and 20. Higher scores on the subscales represent greater frequency of engaging in the corresponding emotion regulation strategy.

In previous studies, the CERQ was administered to late adolescents, general adult population, elderly people, and psychiatric patients (Garnefski et al. 2001; Garnefski et al. 2002a). Cronbach's alpha coefficients of the subscales across various populations ranged between 0.68 and .86, indicating good internal consistency. A study with general adult population yielded test-retest correlations of subscales ranging between 0.48 (*refocus on planning*) and 0.65 (*other-blame*; Garnefski and Kraaj 2007). In terms of construct validity, the CERQ scales had strongest correlations with the Coping Inventory for Stressful Situations (Endler and Parker 1990) subscales, a result which was in line with expectations as both scales were argued to measure related constructs (Garnefski et al. 2002a,b). Furthermore, a number of the CERQ subscales showed moderate to strong correlations with measures of personality (e.g., NEO 5-factor Personality Test), self-esteem, self-efficacy, as well as measures of psychopathology (Garnefski et al. 2002a).

Ways of Coping Inventory (WCI) The original WCI (Folkman and Lazarus 1980) is a 68-item self-report scale that was developed to assess coping styles people use in stressful situations. The scale was adapted into Turkish by Siva (1991), who changed the original *yes-no* response style into a 5-point Likert scale, and added six additional items in order to cover superstitious beliefs and fatalism used by the Turkish culture. Their study yielded a Cronbach's alpha reliability of 0.90 for the overall scale. In a later study, hierarchical dimensions of coping styles were examined in a Turkish sample (Gençöz et al. 2006), and it led to the identification of three distinct factors; namely problem

focused coping, emotion focused coping, and indirect coping. In that study, Cronbach's alpha coefficients were 0.90 for problem focused, 0.88 for emotion focused, and 0.84 for indirect coping subscale. In the present study, WCI was used in order to establish the construct validity of the CERQ. The Cronbach's alpha reliabilities for the present sample were 0.63 for problem focused, 0.65 for emotion focused, and 0.85 for indirect coping subscale.

Brief Symptom Inventory (BSI) The BSI (Derogatis 1993) is composed of 53 items that evaluate psychological symptom patterns individuals experience in the last 2 weeks. Each item is evaluated on a 5-point (0 to 4) Likert-type scale where higher scores indicate higher intensity of experiencing the corresponding symptom. The scale was adapted into Turkish by Şahin and Durak (1994). As a result of its construct validity analysis five factors were emerged, namely *anxiety*, *depression*, *negative self-concept*, *somatization*, and *hostility*. Cronbach's alpha coefficients of the subscales ranged from 0.55 to 0.86, and ranged from 0.96 to 0.95 for the global scale in three different studies, indicating considerable internal consistency reliability (Şahin and Durak 1994). In the present study, the scale was used to evaluate the criterion validity of the CERQ. Cronbach's alpha reliabilities were 0.90 for *depression*, 0.59 for *anxiety*, 0.64 for *negative self concept*, 0.81 for *somatization*, and 0.79 for *hostility* subscales.

General Self-Efficacy Scale (GSE) GSE (Sherer et al. 1982) is a 30-item self-report questionnaire rated on a 5-point (1 to 5) Likert-type scale where higher scores represent higher self-efficacy. The original scale consists of two subscales, namely general and social self-efficacy. The scale was adapted into Turkish culture by Özalp-Türetgen and Cesur (2005, 2007), and the authors reduced the number of items to 19 after conducting item and factor analyses. While Cronbach's alpha coefficients of the whole scale were found to be 0.82 and 0.81 in two different studies (Özalp-Türetgen and Cesur 2005, 2007), test-retest reliability of the scale was found to be 0.82 (Özalp-Türetgen and Cesur 2007). The total scale score (calculated by adding up the individual item scores) representing general self-efficacy was used in the present study in order to seek evidence for the construct validity of the CERQ. Chronbach's alpha reliability of the whole scale was 0.85 for the current sample.

Procedure

The English version of the CERQ was translated into Turkish by three independent graduate clinical psychology students from Middle East Technical University (METU) Psychology Department who are fluently bilingual in English and Turkish languages, and back-translated into English by an independent

translator. Then, the original version of the CERQ was compared to the back-translation by two psychology professors from METU Psychology Department, and necessary changes were made before the development of the final version.

The study was approved by the METU Research Center for Applied Ethics. All participants signed informed consent forms, and participation in the study was entirely voluntarily. Data were collected in classrooms in METU and Yaşar University; and through online survey invitations that were sent to the university students. The Time 2 measurement took place after 1 month. The CERQ and anxiety and depression subscales of the BSI were sent by e-mail to a subscale of 260 participants, and 107(41 %) of them were returned.

Data Analysis

First, confirmatory factor analysis of the sample variance-covariance matrix, using AMOS 20 software with maximum likelihood estimation was used to test the fit of the data to the original nine-factor model. For the rest of the analyses, SPSS 19.0 software was used. Internal consistency of the total scale and each of the subscales were computed by calculating Cronbach's alpha coefficients. For test-retest reliability coefficients, Pearson correlations were calculated between the CERQ subscale scores of Time 1 and Time 2 measurements. Next, Pearson correlations were calculated among the CERQ subscales; followed by their means and standard deviations. Subsequently, Pearson correlations of the CERQ subscales with coping and general self-efficacy measures was computed to examine construct validity. For criterion-related validity, the relationship of cognitive coping strategies at Time 1 with psychological symptoms at Time 2 was investigated by calculating Pearson correlations and multiple regression analyses.

Results

Confirmatory Factor Analysis

Confirmatory factor analysis of the sample variance-covariance matrix indicated that the original nine-factor model provided an overall adequate fit to the data: $SB\chi^2=1308.5$, $df=558$, $p<.001$, $\chi^2/df=2.34$, CFI=.870, RMSEA=.058, SRMR=.075. Standardized factor loadings were all significant, ranging from 0.34 (item 20 to *acceptance*) to 0.85 (item 11 to *acceptance*), with a mean loading of 0.70, suggesting that items generally converged meaningfully to the scales as predicted. Except items 20 ("I think that I cannot change anything about it") and 19 ("I think about the mistakes I have made in this matter"), all standardized factor loadings were above 0.45.

Correlations among the CERQ Subscales

Correlations among the CERQ subscales ranged between 0.00 (*other-blame* and *putting into perspective*) and 0.50 (*positive reappraisal* and *refocus on planning*), with a mean correlation coefficient of 0.20 (see Table 1).

CERQ Means and Standard Deviations

Means and standard deviations of the CERQ subscales at Time 1 measurement are displayed in Table 2. Among the CERQ subscales, *refocus on planning* was reported to be used most frequently by the participants both at Time 1 ($M=15.33, SD=2.66$) and at Time 2 ($M=15.12, SD=2.66$) measurement. *Catastrophizing*, on the other hand, was reported to be used least often at both measurements ($M_1=9.21, SD_1=3.23; M_2=8.78, SD_2=3.10$).

Reliability Analyses

In order to examine the internal consistency of the CERQ and its subscales, Cronbach’s alpha coefficients were computed (see Table 2). At first measurement, while the internal consistency reliability of the subscales ranged between 0.72 (*self blame*) and 0.83 (*catastrophizing*), which can be considered as good. Test-retest reliabilities of the individual subscales were also good, ranging between 0.50 (*blaming others*) and 0.70 (*self blame*).

Construct and Criterion Validities

In order to establish the construct validity of the CERQ Turkish version, Pearson correlations were calculated between the subscales of the CERQ and the Ways of Coping Inventory (Folkman and Lazarus 1980). As can be seen in Table 3, the correlation of *positive refocusing*, *refocus on planning*, *putting into perspective*, and *positive reappraisal* with problem focused coping was positive and significant

($p<.01$). Furthermore, *catastrophizing* and *self-blame* correlated negatively with problem focused coping ($p<.01$).

The relationship between the use of different cognitive coping strategies and self-efficacy was examined by administering the CERQ and General Self-Efficacy Scale (Sherer et al. 1982) together (see Table 3). *Self-blame*, *acceptance*, *catastrophizing*, and *blaming others* had significant negative correlations with self-efficacy. On the other hand; *positive reappraisal*, *refocus on planning*, *positive refocusing*, and *putting into perspective* correlated positively with self-efficacy scores ($p<.01$).

In order to examine criterion related validity, correlations between the CERQ subscale scores and Brief Symptom Inventory (Derogatis 1993) total and subscale scores were calculated (see Table 3). *Self-blame*, *acceptance*, *rumination*, *catastrophizing*, and *blaming others* exhibited significant positive correlations with general symptoms of psychopathology ($p<.01$). Furthermore, *self-blame*, *rumination*, *catastrophizing* and *blaming others* had significant and positive correlations with all symptom patterns.

Next, the relationship of Time 1 cognitive emotion regulation strategies with symptoms of depression and anxiety at Time 2 were examined by calculating Pearson correlations. Correlations of Time 1 *positive refocusing* ($r=-.30$), *refocus on planning* ($r=-.22$), *positive reappraisal* ($r=-.22$), and *putting into perspective* ($r=-.27$) with Time 2 anxiety scores were significant ($p_s<.01$). While *positive refocusing* had a significant negative correlation with Time 2 depression scores ($r=-.29, p<.01$), *acceptance* had a significant positive correlation with the same variable ($r=.19, p<.05$). After controlling for Time 1 anxiety, *putting into perspective* still correlated significantly with Time 2 anxiety ($r=-.24, p<.01$). In order to examine how Time 1 emotion regulation strategies have an impact on depressive and anxiety symptoms at Time 2, two multiple regression analyses were run. Only Time 1 emotion regulation strategies that were significantly correlated with Time 2 symptoms were included into the regression equations. The regression equation examining

Table 1 Pearson intercorrelations among the CERQ Subscales (N=396)

	1	2	3	4	5	6	7	8
1. Self blame	–							
2. Acceptance	0.26**	–						
3. Rumination	0.35**	0.26**	–					
4. Positive refocusing	-0.04	0.04	0.00	–				
5. Refocus on planning	0.04	0.00	0.24**	0.29**	–			
6. Positive reappraisal	-0.07	0.07	0.11*	0.48**	0.55**	–		
7. Putting into perspective	0.04	0.13**	0.11*	0.33**	0.34**	0.50**	–	
8. Catastrophizing	0.34**	0.26**	0.28**	-0.15**	-0.24**	-0.32**	-0.12*	–
9. Blaming others	0.01	0.14**	0.23**	-0.03	-0.10*	-0.23**	0.00	0.44**

* $p<.05$, ** $p<.01$

Table 2 Internal consistency (α) and re-test reliabilities, means and standard deviations of the CERQ subscales

CERQ subscales	Time 1 α ($N=396$)	Test-retest r ($N=106$)	Time 1 M ($N=396$)	Time 1 SD ($N=396$)
Self-blame	0.72	0.70**	12.00	2.43
Acceptance	0.74	0.58**	12.24	2.75
Rumination	0.82	0.65**	14.75	3.06
Positive refocusing	0.81	0.66**	11.29	3.08
Refocus on planning	0.81	0.60**	15.33	2.66
Positive reappraisal	0.79	0.63**	14.02	2.88
Putting into perspective	0.75	0.64**	12.79	2.84
Catastrophizing	0.83	0.69**	9.21	3.23
Blaming others	0.82	0.50**	10.72	2.63

* $p < .01$, ** $p < .001$

the prediction of Time 2 depression from Time 1 *acceptance* and *positive refocusing* was significant, $F(2, 105)=7.18$, $p < .01$, and it explained 12 % of the variance. *Positive refocusing* significantly predicted Time 2 depression ($\beta = -.29$, $p < .01$), as did *acceptance* ($\beta = .19$, $p < .05$). The equation examining the prediction of Time 2 anxiety symptoms from *positive refocusing* ($\beta = -.20$, *n.s.*), *refocus on planning* ($\beta = -.12$, *n.s.*), *catastrophizing* ($\beta = .17$, *n.s.*), *positive reappraisal* ($\beta = .08$, *n.s.*), and *putting into perspective* ($\beta = -.15$, *n.s.*) was also significant, $F(5, 102)=3.71$, $p < .01$, and it explained 15 % of the variance. However, none of the individual cognitive strategies significantly predicted Time 2 anxiety.

Discussion

The purpose of this study was to develop a Turkish version of the original CERQ and to validate its psychometric properties in a sample of Turkish university students. Therefore, the fit of the current data to the original nine-factor model was examined. Then, the CERQ's relationship with a common measure of coping styles and general self-efficacy was

examined to search for construct validity. Additionally, the association of the CERQ with psychological symptoms was investigated in order to seek evidence for criterion-related validity.

The results indicated that the Turkish version of the CERQ demonstrates an adequate fit to the original nine-factor structure for the current Turkish sample. Furthermore, the Turkish version appeared to be a reliable measure of cognitive emotion regulation strategies, displaying internal and retest reliability values comparable to the original scale.

In line with our hypothesis, *positive reappraisal*, *refocus on planning*, *putting into perspective*, and *positive refocusing* were positively related to problem-focused coping; a coping strategy that generally includes task-oriented actions directed at solving or managing a problem (Folkman and Lazarus 1980). In addition, negative correlations were found between problem-focused coping, and *self-blame* and *catastrophizing* subscales of the CERQ. This finding suggested that blaming oneself as the source of problems and catastrophizing the consequences of an event may interfere with active problem solving. In line with our expectations, *positive reappraisal*, *refocus on planning*, *putting into perspective* and *positive*

Table 3 Correlations of the CERQ subscales with symptom measures, coping, and self-efficacy scores at time-1 measurement

CERQ subscales	BSI total	Depression	Anxiety	Negative self-concept	Somatization	Hostility	PFC	EFC	IC	Self-efficacy
Self-blame	0.28**	0.29**	0.25**	0.31**	0.21**	0.21**	-0.19**	0.01	0.08	-0.18**
Acceptance	0.17**	0.21**	0.18**	0.19**	0.05	0.14*	-0.06	0.21**	0.08	-0.13*
Rumination	0.30**	0.32**	0.29**	0.24**	0.13**	0.25**	0.02	0.03	0.19**	-0.07
Positive refocusing	-0.13*	-0.18**	-0.11	-0.14*	-0.07	-0.10	0.23**	0.19**	0.02	0.18**
Refocus on planning	-0.09	-0.06	-0.07	-0.00	-0.12	-0.10	0.45**	-0.07	0.10	0.31**
Positive reappraisal	-0.13*	-0.11	-0.11	-0.04	-0.05	-0.14*	0.45**	0.15*	0.07	0.32**
Putting into perspective	-0.03	-0.08	0.00	-0.04	-0.00	-0.03	0.29**	0.36**	0.07	0.20**
Catastrophizing	0.37**	0.36**	0.33**	0.34**	0.29**	0.38**	-0.27**	0.22**	0.05	-0.29**
Blaming others	0.27**	0.23**	0.27**	0.15*	0.14*	0.31**	-0.11	0.19**	0.14*	-0.30**

* $p < .05$; ** $p < .01$

PFC Problem Focused Coping, EFC Emotion Focused Coping, IC Indirect Coping

refocusing had positive relationships with general self-efficacy. On the other hand, *self-blame*, *catastrophizing*, *rumination*, and *blaming others* were negatively related to self-efficacy scores.

Regarding the criterion-related validity, as expected, engaging in more *rumination*, *self-blame*, *blaming others*, and *catastrophizing* was related to more psychological symptoms; which confirms our hypothesis. This suggests that people who engage in these strategies may be more prone to developing psychological problems. Using more *positive refocusing* was related to less depression and lower negative self-concept scores. The use of *positive refocusing*, *refocus on planning*, *positive reappraisal*, and *putting into perspective* was related to lower levels of anxiety in 1 month follow-up. In addition, current *positive refocusing* was related to lower depression scores at follow-up. These findings suggest that certain coping strategies may increase functionality and may prevent the development of psychological symptoms.

The findings mentioned above imply that *positive reappraisal*, *refocus on planning*, *putting into perspective* and *positive refocusing* subscales of the CERQ seem to be more adaptive and functional strategies, whereas *self-blame*, *catastrophizing*, *rumination*, and *blaming others* subscales appear to be related to psychological symptoms and lower psychological well-being. Similar to some of the previous studies (e.g., Kraaij, Garnefski, and Vlietstra 2008; Kraaij et al. 2002; Martin and Dahlen 2005), *acceptance* subscale exhibited significant positive correlations with depressive and anxiety symptoms. Findings of the current study suggested that acceptance is also related to a negative self-concept, hostility, and lower self-efficacy as assessed by the Brief Symptom Inventory (Derogatis 1993) and General Self-Efficacy Scale (Sherer et al. 1982). One possible explanation for this finding could be that although it has generally been considered as a functional coping strategy (e.g., Garnefski et al. 2001), *acceptance* may not be so adaptive in situations where the stressor can be changed (Carver et al. 1989). As the sample of the current study consisted of university students in their early 20s, who are mostly recruited from a highly competitive university, *acceptance* items could have been appraised as resigning passively to the distressing event. Especially items such as “I think that I cannot change anything about it” might have implied a sense of helplessness and/or hopelessness for the current sample. In general, findings of this study replicate that *acceptance* subscale shows mixed results across studies. We believe that a further investigation and, if necessary, a revision of this subscale might improve the CERQ’s psychometric properties and enhance our understanding of the role of *acceptance* as an emotion regulation strategy.

There are several limitations of the current study that should be noted. To begin with, the present sample consisted of university students who may not represent the

general Turkish adult population; and this limits the generalizability of the results. Another limitation was the use of a non-clinical adult sample in examining the relationship between cognitive coping styles and symptoms of psychopathology. This relationship may be different in clinical samples and should be investigated by future studies. Additionally, although part of our results is based on prospective data; experimental and/or longitudinal designs with wider time intervals are needed in order to fully understand the role of pre-existing cognitive emotion regulation strategies in the development of emotional problems.

In closing, the present study was the first to adapt the original 36-item version of the CERQ into Turkish. The findings imply that the Turkish version is a reliable and valid measure of cognitive emotion regulation strategies. Based on our findings, certain cognitive emotion regulation strategies appear to be related to higher functionality; whereas others appear to be associated with psychopathology and lower psychological well-being. This study also illuminates the relationship of cognitive strategies with hostility, negative self-concept, and somatization. Findings of the current study may be used to develop effective interventions that focus on the use of more adaptive cognitive coping strategies. Lastly, we believe that the Turkish version of the CERQ will facilitate research on cognitive coping in Turkey, which to our knowledge has not yet been studied in this specific population.

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